

A total of 8997 confirmed, probable, and suspected cases of Ebola virus disease (EVD) have been reported in seven affected countries (Guinea, Liberia, Nigeria, Senegal, Sierra Leone, Spain, and the United States of America) up to the end of 12 October. There have been 4493 deaths.

Data for epidemiological week 41 are incomplete, with missing data for 12 October from Liberia. This reflects the challenging nature of data gathering in countries with widespread and intense EVD transmission. These challenges remain particularly acute in Liberia, where there continues to be a mismatch between the relatively low numbers of new cases reported through official clinical surveillance systems on one hand, and reports from laboratory staff and first responders of large numbers of new cases on the other. Efforts are ongoing to reconcile different sources of data, and to rapidly scale-up capacity for epidemiological data gathering throughout each country with widespread and intense transmission.

It is clear, however, that the situation in Guinea, Liberia, and Sierra Leone is deteriorating, with widespread and persistent transmission of EVD. An increase in new cases in Guinea is being driven by a spike in confirmed and suspected cases in the capital, Conakry, and the nearby district of Coyah. In Liberia, problems with data gathering make it hard to draw any firm conclusions from recent data. There is almost certainly significant under-reporting of cases from the capital Monrovia. There does appear to have been a genuine fall in the number of cases in Lofa district, but a concerted effort will be required to sustain that drop in cases and translate it into an elimination of EVD in that area. In Sierra Leone, intense transmission is still occurring in the capital Freetown and the surrounding districts.

Of the countries with localized transmission, Nigeria and Senegal are now approaching 42 days since the date of last potential contact with a probable or confirmed case. Both Spain and the United States continue to monitor potential contacts.

In response to the unprecedented EVD epidemic, the first-ever UN emergency health mission, the UN Mission for Ebola Emergency Response (UNMEER¹) has been set up. Its strategic priorities are to stop the spread of the disease, treat infected patients, ensure essential services, preserve stability and prevent the spread 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. A four-day crisis management and operational planning meeting will take place in Accra from 15 October.

OUTLINE

This is the eighth in a series of regular situation reports on the Ebola Response Roadmap². 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.

¹For the UNMEER portal see: <http://www.un.org/ebolareponse/mission.shtml>

²For 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 an initial case or cases, or with localized transmission (Nigeria, Senegal, Spain, and the United States of America); and (3), those countries that neighbour areas of active transmission (Benin, Burkina Faso, Côte d'Ivoire, Guinea-Bissau, Mali, Senegal). 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).

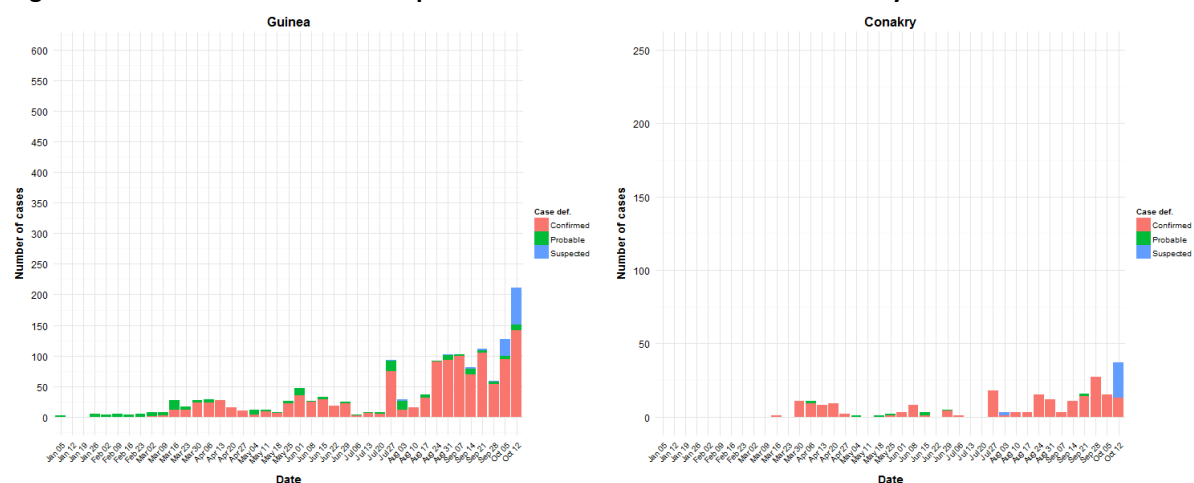
1. COUNTRIES WITH WIDESPREAD AND INTENSE TRANSMISSION

The upward epidemic trend continues in Guinea, Liberia, and Sierra Leone. 8973 probable, confirmed, and suspected cases of EVD and 4484 deaths have been reported up to the end of 12 October 2014 by the Ministries of Health of Guinea and Sierra Leone, and up to the end of 11 October by the Ministry of Health of Liberia (table 1).

GUINEA

There is evidence of an increase in the intensity of transmission in Guinea. Compared with the previous week, a very slight drop in the number of new confirmed cases reported from the capital Conakry (figure 1) has been more than offset by a sharp rise in the number of new cases in the neighbouring district of Coyah, with 25 cases reported between 6 and 12 October. Because laboratory data is currently well integrated with clinical surveillance in Guinea, many of the newly reported suspected cases are likely to be reclassified or discarded in the coming weeks. N'Zerekore (29 cases) and Kerouane (14 cases) have also shown a marked increase in new cases in recent weeks. Transmission remains intense in Macenta, which reported 51 new cases between 6 and 12 October. Gueckedou, where the outbreak originated, reported one suspected case during the same period. In the east of the country, on the border with Côte d'Ivoire, the districts of Beyla and Lola both reported new cases (figure 4), emphasizing the need for active surveillance at local border crossings. To the North, the district of Boke, on the border with Guinea-Bissau has reported active transmission for the first time in more than 21 days. The central district of Mamou has reported a confirmed case for the first time.

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



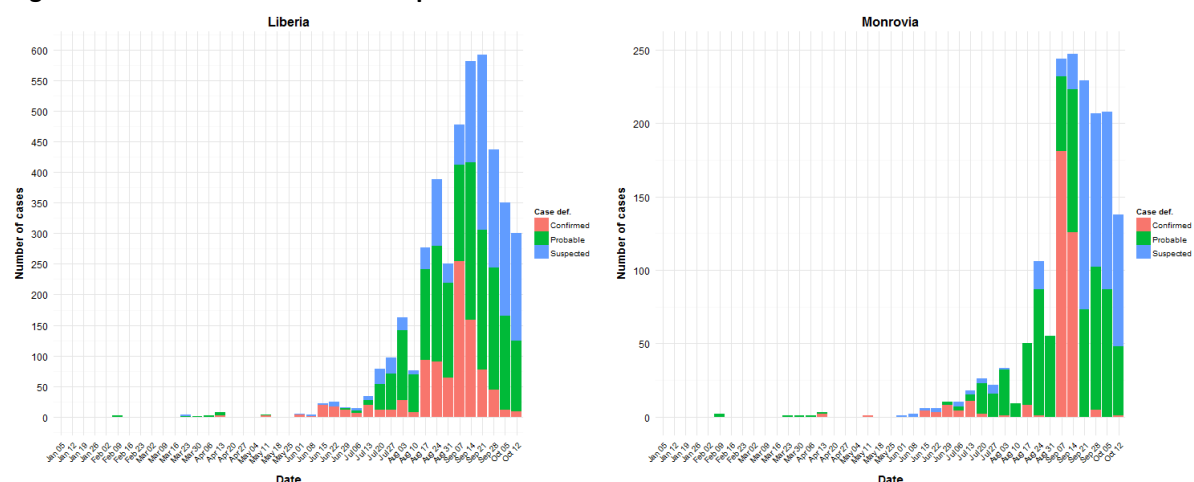
Data are based on official information reported by Ministries of Health up to the end of 12 October for Guinea and Sierra Leone, and 11 October for Liberia. These numbers are subject to change due to ongoing reclassification, retrospective investigation and availability of laboratory results.

LIBERIA

Data acquisition continues to be a challenge in Liberia. Evidence obtained from responders and laboratory staff in the country suggests that the situation in Liberia is getting worse, and that transmission remains intense in the capital, Monrovia. As has been the case over the past four

weeks, very few confirmed cases were reported from Monrovia between 6 and 11 October (figure 2), reflecting ongoing delays in matching laboratory results with clinical surveillance data. By contrast, 138 suspected and probable cases were reported from Monrovia during the same period, many of which are likely to be genuine cases of EVD. Outside Monrovia, most newly reported cases have come from the districts of Bong (75 cases) and Margibi (28 cases). The recent fall in the number of new cases reported from Lofa, which borders Guekedou in Guinea, appears to have continued, with reports from observers in the area suggesting that there is evidence of a genuine decline. It should be noted, however, that the 13 new cases that were reported in Lofa between 6 and 11 October represents a high number in the context of an EVD outbreak, and a concerted effort will be required to halt all transmission in the area.

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



Data are based on official information reported by Ministries of Health up to the end of 12 October for Guinea and Sierra Leone, and 11 October Liberia. These numbers are subject to change due to ongoing reclassification, retrospective investigation and availability of laboratory results.

Table 1: Probable, confirmed, and suspected cases in Guinea, Liberia, and Sierra Leone

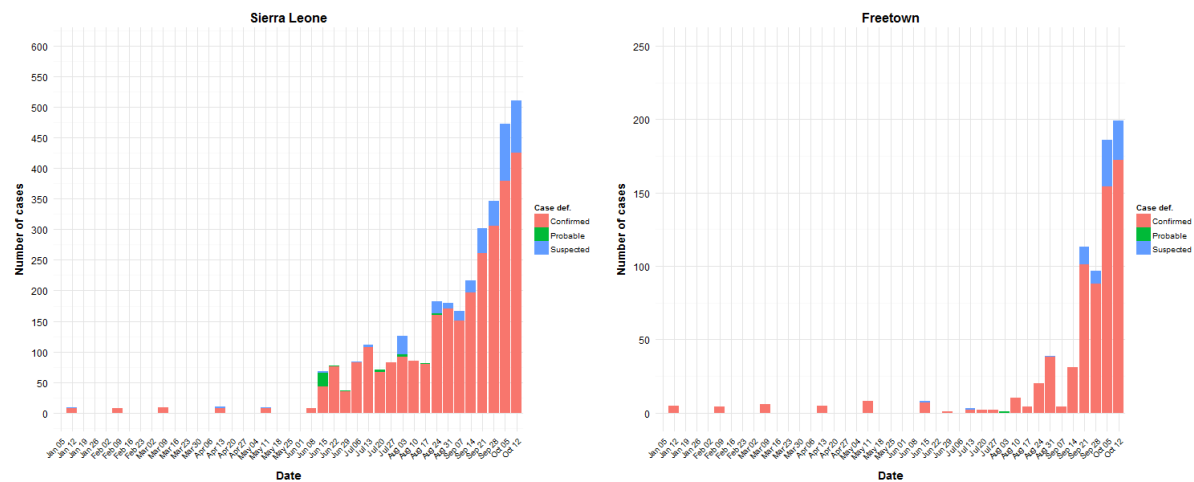
Country	Case definition	Cases	Cases in past 21 days	Cases in past 21 days/total cases (%)	Deaths
Guinea	Confirmed	1184	289	24%	653
	Probable	190	19	10%	190
	Suspected	98	89	91%	0
	All	1472	397	27%	843
Liberia	Confirmed	950	66	7%	*
	Probable	1923	468	24%	*
	Suspected	1376	555	40%	*
	All	4249	1089	26%	2458
Sierra Leone	Confirmed	2849	1110	39%	926
	Probable	37**	0	0%	157**
	Suspected	366	220	60%	100
	All	3252	1330	41%	1183
Total		8973	2816	31%	4484

*No available data. **For Sierra Leone, 120 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.

SIERRA LEONE

EVD transmission is rampant in Sierra Leone, with 425 new confirmed cases reported between 6 and 12 October (figure 3). The areas hardest hit are the capital, Freetown, with 172 new cases, along with the neighbouring western districts of Bombali (94 cases) and Port Loko (67 cases). The central districts of Bo (22 new cases), and Tonkolili (27 new cases) are also areas of intense transmission. Transmission appeared to have been slowing in recent weeks in Kailahun and Kenema. However, this week has seen an increase in new cases, with eight new cases in Kailahun and 16 in Kenema.

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



Data are based on official information reported by Ministries of Health up to the end of 12 October for Guinea and Sierra Leone, and 11 October for Liberia. These numbers are subject to change due to ongoing reclassification, retrospective investigation and availability of laboratory results.

HEALTH-CARE WORKERS

427 health-care workers (HCWs) are known to have been infected with EVD up to the end of 12 October. 236 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.

GEOGRAPHICAL DISTRIBUTION AND NEWLY AFFECTED DISTRICTS

Figure 4 shows the location of cases throughout the countries with widespread and intense transmission. In Guinea, the northern district of Boke, on the border with Guinea-Bissau, has reported active transmission for the first time in more than 21 days. The central district of Mamou has reported one confirmed for the first time.

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

Country	Case definition	Cases	Deaths
Guinea*	Confirmed	68	32
	Probable	8	8
	Suspected	0	0
	All	76	40
Liberia*	Confirmed	78	64
	Probable	96	27
	Suspected	35	5
	All	209	96
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	1	0
	Probable	**	**
	Suspected	**	**
	All	1	0
Total		427	236

*Countries with widespread and intense transmission. **No available data. Data are based on official information reported by Ministries of Health up to the end of 12 October for Guinea and Sierra Leone, and 11 October for Liberia. These numbers are subject to change due to ongoing reclassification, retrospective investigation and availability of laboratory results.

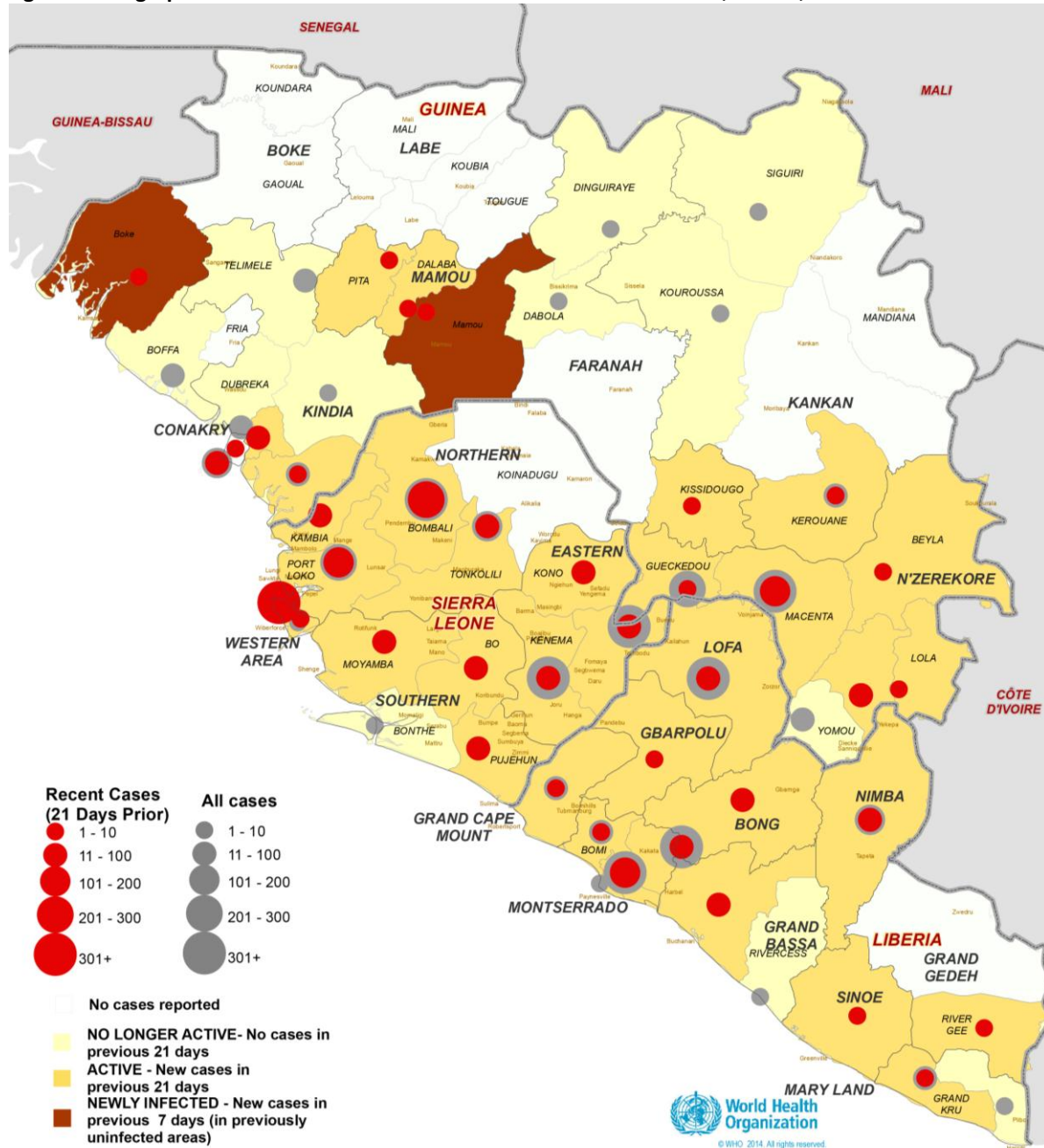
RESPONSE IN COUNTRIES WITH WIDESPREAD AND INTENSE TRANSMISSION

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 an estimated 85% of affected areas. 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.

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 up to the end of 12 October for Guinea and Sierra Leone, and 11 October for Liberia. 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.

Case management

Meetings were held this week and last in Geneva to further refine WHO's existing guidance on personal protective equipment in EVD outbreaks with a formal WHO Guidelines Development Group, including experts from a wide range of partners. A final document is expected within the week. A standing Training Coordination Partners Group met for its third and fourth calls on 8 and 15 October.

Efforts to scale-up the number of available EVD-specific beds have been intensified in countries with widespread and persistent transmission. Finding donors to fund the construction of new treatment facilities, and foreign medical teams to staff them, remains an ongoing challenge.

Two of four planned ETUs are now fully operation in Guinea (table 3). In Liberia, however, only six of a planned 28 ETUs are currently operational, providing 620 (21%) of 2930 planned beds (figure 6). Health-care partners able to staff and manage ETUs are yet to be found for 16 of 28 planned facilities in the country, contributing to a current shortfall of 2310 beds. In Sierra Leone, almost half of the 18 planned ETUs are now operational. Three facilities accounting for 250 beds require further support before being brought into use.

Table 3: Available and planned EVD bed capacity

	Existing ETU beds	Planned ETU beds	Existing ETU beds/planned ETU beds (%)
Liberia	620	2930	21%
Guinea	160	260	50%
Sierra Leone	346	1198	29%

In all three intense-transmission countries, a lack of available beds in ETUs forces many families to care for patients at home. In the home setting, carers 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 introduced into communities. These facilities will enable newly detected cases to be isolated, and thus reduce household transmission. ECUs/CCCs are controlled environments within communities where patients with EVD can receive supportive and palliative care in close proximity to their families.

Liberia and Sierra Leone are the first countries to implement ECUs/CCCs. Liberia has opened two CCCs in Bong and Montserrado. In Sierra Leone, a total of 149 CCCs are planned within the next 10 weeks.

Case confirmation

The total number of operational laboratories in the three intense-transmission countries will increase to 13 in the coming weeks, as a Russian Mobile Laboratory becomes operational in Macenta, Guinea, and a Public Health England laboratory begins to provide diagnostic testing in the Western Rural area of Sierra Leone. At present, overall testing capacity stands at 200 samples per day in Guinea, 470 in Liberia, and 300 in Sierra Leone.

As ECUs/CCCs are introduced more widely, it is anticipated that demand for diagnostic capacity will increase. Currently, specimens from districts without a laboratory are sent to the nearest laboratory in a neighbouring district.

Surveillance

In Guinea, contact-tracing teams in all districts except Dalaba and Faranah were able to trace 90% of registered contacts each day during the past week. In Liberia, fewer than 90% of registered contacts were traced in the districts of Bomi, Gbarpolu, Grand Bassa, Grand Cape Mount, Grand Gedeh, Grand Kru, Maryland, Margibi, Nimba, Rivercess, River Gee, and Sinoe. In Sierra Leone, teams were able to trace 82% of registered contacts in Monrovia on a daily basis. Teams in the districts of Bo, Bonthe, Kenema, Kono, Moyemba, Port loko, Pujehun, and Tonkolili were able to trace more than 90% of registered contacts daily.

Contact-tracing teams in areas of intense transmission are often overwhelmed by the high volumes of daily contacts to be traced. Logistical difficulties, community denial of the existence of EVD, and community resistance can also hamper the ability of teams to trace contacts effectively.

Safe and dignified burials

Ebola task forces established in all three intense-transmission countries continue to deploy teams trained in the safe management of dead bodies in response to deaths in treatment facilities and in communities. All districts in countries with widespread and intense transmission are equipped with trained dead-body-management teams.

Social mobilization

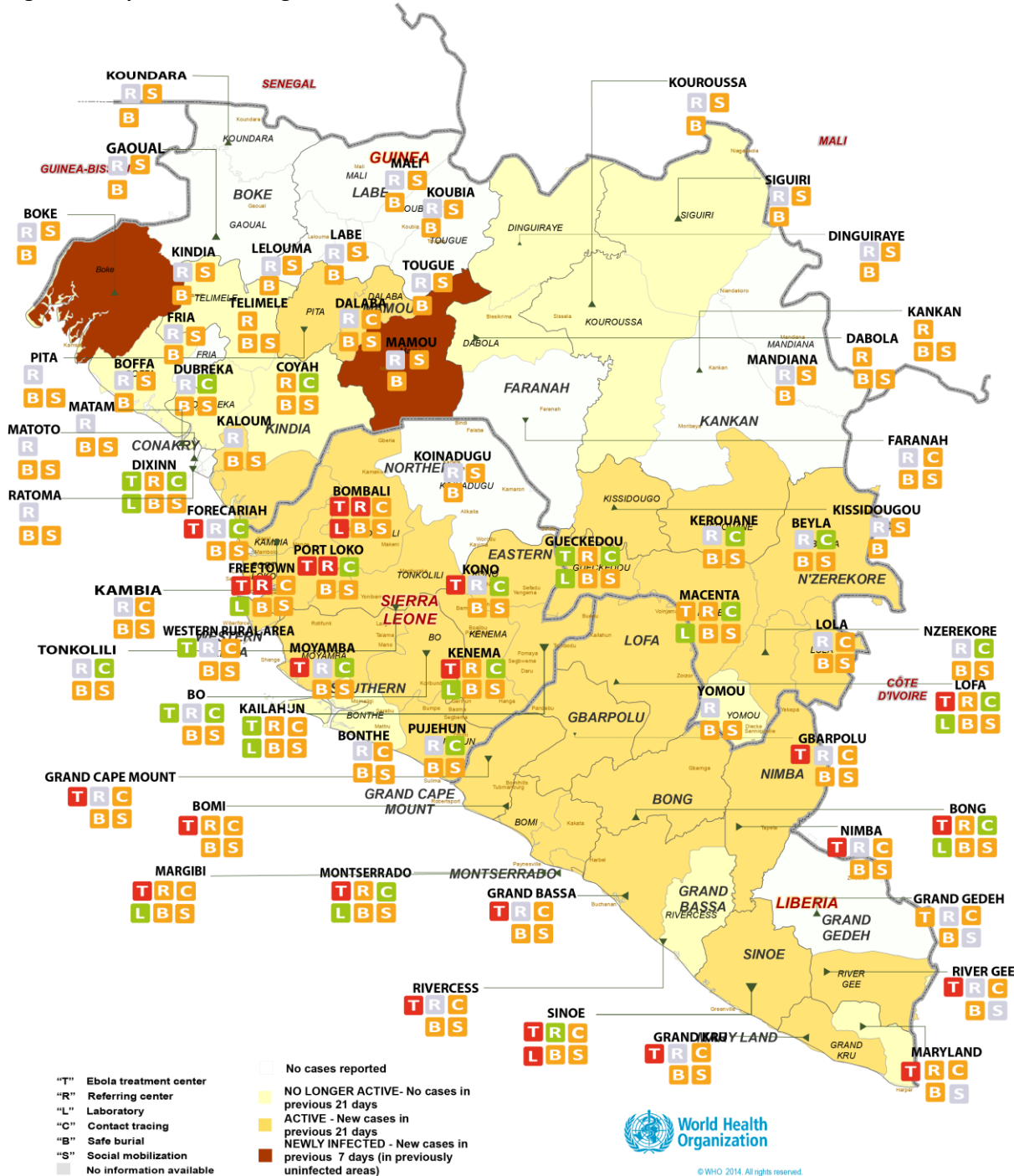
On 8 October, the Ebola Communication Network (ECN) was launched. ECN is an online collection of Ebola resources for Ebola communication³ developed by the Health Communication Capacity Collaborative with inputs from UNICEF, the US Centers for Disease Control and Prevention, USAID, IFRC, and WHO to strengthen the capacity of countries to implement state-of-the-art health-communication programs.

A working group of representatives of faith-based organizations was established to collaborate with WHO, UNICEF and IFRC to ensure that religious and cultural practices are included as part of the technical guidelines on safe and dignified burials.

A protocol on community engagement developed by WHO and UNICEF for the planning and roll-out of ECUs/CCCs, has now been finalized. The protocol will ensure that affected communities are listened to, consulted, and that they will drive the local-level response to reduce EVD transmission.

³For the the Ebola Communication Network see: www.ebolacommunicationnetwork.org

Figure 6: 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.

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 have been 20 cases and eight deaths (table 4). In Senegal, there has been one case, but as yet there have been no deaths or further suspected cases attributable to EVD. In the United States of America there have been two cases and one death. In Spain there has been one case.

In Nigeria, all 891 contacts have now completed 21-day follow-up (362 contacts in Lagos, 529 contacts in Port Harcourt). A second EVD-negative sample was obtained from the last confirmed case on 8 September (37 days ago). In Senegal, all contacts have now completed 21-day follow-up, with no further cases of EVD reported. A second EVD-negative sample was obtained from the single confirmed case in Senegal on 5 September (40 days ago). Within a country, an outbreak of EVD 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 EVD⁴.

In Spain, 72 people, including 13 high-risk contacts, are being monitored. In the United States of America, 125 contacts are being monitored.

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

Country	Case definition	Cases	Deaths
Nigeria	Confirmed	19	7
	Probable	1	1
	Suspected	0	0
	All	20	8
Senegal	Confirmed	1	0
	Probable	0	0
	Suspected	0	0
	All	1	0
Spain	Confirmed	1	0
	Probable	*	*
	Suspected	*	*
	All	1	0
United States of America	Confirmed	2	1
	Probable	*	*
	Suspected	*	*
	All	2	1
	Total	24	9

**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.*

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

In accordance with the UNMEER 90-day plan, strengthening the preparedness of all countries to respond to an initial exposure to 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

⁴See <http://www.who.int/mediacentre/news/ebola/14-october-2014/en/>

appropriate technical guidance, simulation and protocol testing, and, in case of the importation of an EVD case, a rapid response capacity. On 10 October, a meeting between WHO and partner organizations in Brazzaville 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 checklist of core principles, standards, capacities and practices, which all countries should have or meet.

On 13 October, WHO Director General Margaret Chan urged East Asian and Pacific countries to strengthen defenses against EVD.

Preparations are ongoing for the third meeting of the IHR emergency committee, which will have a special focus on entry and exit screening⁵.

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 9 October 2014, and following a retrospective laboratory review of cases, there have been 68 cases (38 confirmed, 28 probable, 2 suspected) of Ebola virus disease (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.

852 contacts have now completed 21-day follow-up. Of 269 contacts currently being monitored, all (100%) were seen on 9 October, the last date for which data has been reported. This outbreak is unrelated to that affecting Guinea, Liberia, Nigeria, Senegal and Sierra Leone.

⁵For interim guidance on point-of-entry screening see: <http://www.who.int/csr/resources/publications/ebola/event-management-poe/en/>

ANNEX 3. KEY TO FIGURE 6 (RESPONSE-MONITORING MAP)

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