WHO: Ebola Response Roadmap Situation Report
8 October 2014

The total number of confirmed, probable, and suspected cases (see Annex 1) in the West African epidemic of Ebola virus disease (EVD) reported up to the end of 5 October 2014 (epidemiological week 40) is 8033 with 3865 deaths. Countries affected are Guinea, Liberia, Nigeria, Senegal, Sierra Leone, and the United States of America. A confirmed case of EVD has been reported in Spain[1], but because the case was confirmed during the week ending 12 October (epidemiological week 41), information on this case will be included in the next Ebola Response Roadmap update.

The past week has seen a continuation of recent trends: the situation in Guinea, Liberia, and Sierra Leone continues to deteriorate, with widespread and persistent transmission of EVD. Problems with data gathering in Liberia continue. It should be emphasized that the reported fall in the number of new cases in Liberia over the past three weeks is unlikely to be genuine. Rather, it reflects a deterioration in the ability of overwhelmed responders to record accurate epidemiological data. It is clear from field reports and first responders that EVD cases are being under-reported from several key locations, and laboratory data that have not yet been integrated into official estimates indicate an increase in the number of new cases in Liberia. There is no evidence that the EVD epidemic in West Africa is being brought under control, though there is evidence of a decline in incidence in the districts of Lofa in Liberia, and Kailahun and Kenema in Sierra Leone.

OUTLINE

This is the seventh in a series of regular situation reports on the Ebola Response Roadmap[2]. 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. 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 an initial case or cases, or with localized transmission (Nigeria, Senegal, 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 (table 1).

GUINEA
Transmission in Guinea is persistent (figure 1), with approximately 100 new confirmed cases of EVD reported in the past week. For many weeks the outbreak in Guinea has been driven by transmission in three areas: the capital Conakry, Macenta, and Gueckedou, the region in which the outbreak originated. Although the number of reported new confirmed and probable cases in Gueckedou has been stable and low over the past four weeks, with between four and six cases reported each week, the number of new cases reported from Macenta varied between 15 and 71 cases reported each week over the same period. Transmission remains high in Conakry, with 15 new confirmed and

probable cases reported in epidemiological week 40. The district of N'Zerekore has also reported a marked increase in the number of new cases reported, with 20 reported in epidemiological week 40. In the east of country, on the border with Côte d'Ivoire, the district of Lola has now reported cases of EVD for the first time (three confirmed cases; figure 4). The neighboring district of Beyla reported its first confirmed cases the previous week.

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	1044	253	24%	587
	Probable	180	13	7%	179
	Suspected	74	65	88%	2
	All	**1298**	**331**	**26%**	**768**
Liberia	Confirmed	941*	136	14%	1018*
	Probable	1795	567	32%	701
	Suspected	1188	651	55%	491
	All	**3924**	**1354**	**34%**	**2210**
Sierra Leone	Confirmed	2455	924	38%	725
	Probable	37†	0	0%	123†
	Suspected	297	190	64%	31
	All	**2789**	**1114**	**40%**	**879**
Total		**8011**	**2799**	**35%**	**3857**

In Liberia, 77 more confirmed deaths have been reported than have confirmed cases. †In Sierra Leone, 86 more probable deaths have been reported than have probable cases. 275 of the additional deaths reported this week from Sierra Leone are the result of a retrospective analysis of hospital records. Data are based on official information reported by Ministries of Health up to the end of 5 October for Guinea and Sierra Leone, and 4 October for Liberia. These numbers are subject to change due to ongoing reclassification, retrospective investigation and availability of laboratory results.

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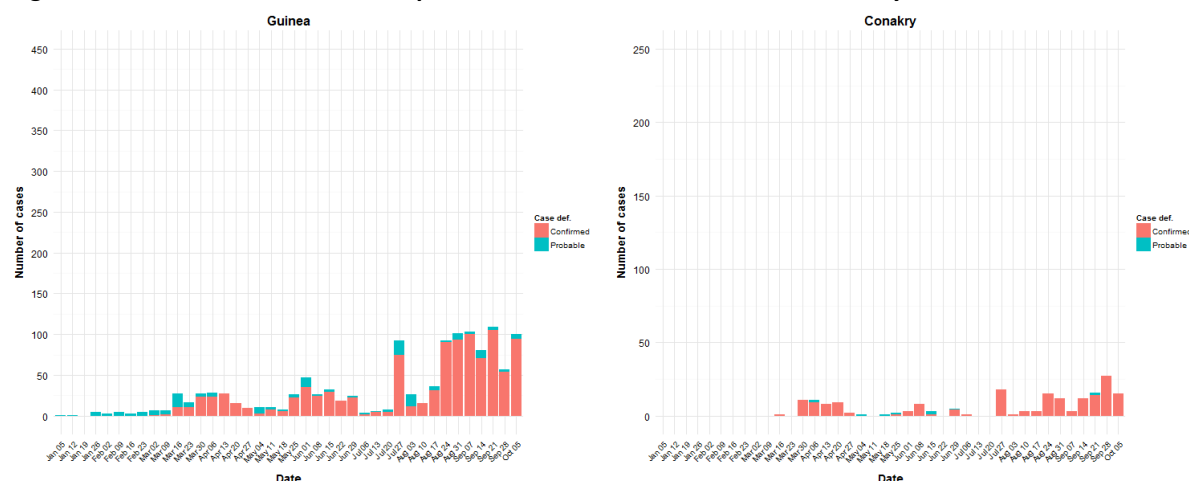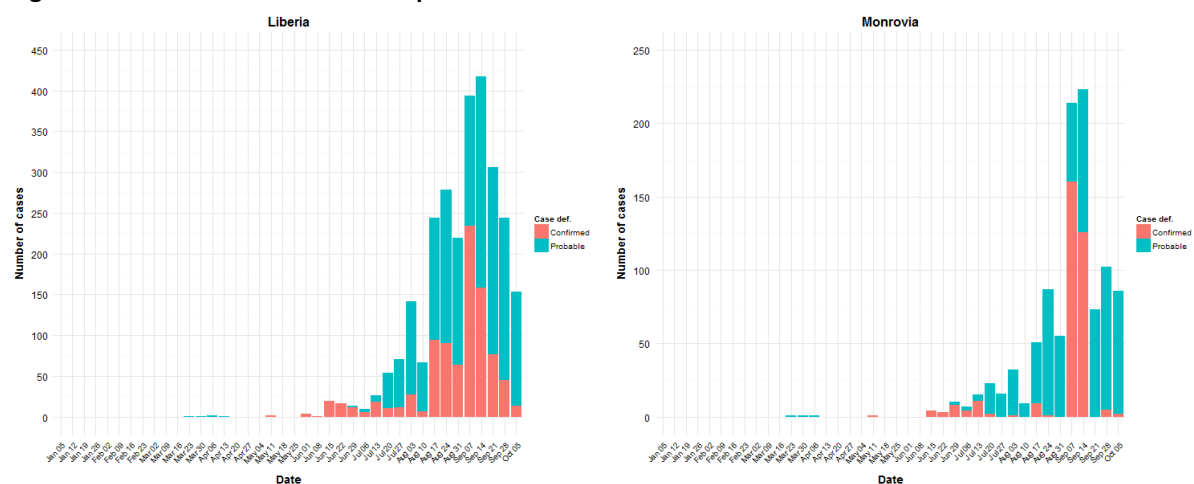

Data are based on official information reported by Ministries of Health. These numbers are subject to change due to ongoing reclassification, retrospective investigation and availability of laboratory results.

LIBERIA

There continue to be profound problems affecting data acquisition in Liberia. Evidence obtained from responders and laboratory staff in the country indicates beyond doubt that there is widespread

under-reporting of new cases, and that the situation in Liberia, and in Monrovia in particular, continues to deteriorate from week to week. Approximately 200 new probable and suspected cases, but very few confirmed cases, have been reported in the capital Monrovia in each of the past three weeks. A substantial proportion of these suspected cases are most probably genuine cases of EVD, and the reported fall in confirmed cases over the past three weeks reflects delays in matching laboratory results with clinical surveillance data. Efforts continue to urgently address problems with data acquisition in what is an extremely challenging environment, and it is likely that the figures will be revised upwards in due course. The district of Margibi continues to report high numbers of new confirmed and probable cases (31 in the past week), while the district of Grand Cape Mount has reported new cases for the first time in three weeks. There continues to be a fall in the number of new cases reported in Lofa, which borders Gueckedou in Guinea, with 12 confirmed and probable cases reported this week compared with 39 the previous week. This appears to be a genuine reduction.

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

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

Nationally, the situation in Sierra Leone continues to deteriorate, with an increase in the number of new confirmed cases reported over each of the past seven weeks (figure 3). The capital, Freetown, and the neighbouring districts of Bombali, Port Loko, and Moyamba, have all reported a surge in cases over the past seven to eight weeks. The districts of Bo and Tonkolili have also reported an increase in the number of new confirmed and probable cases over the same period. By contrast, a low number of new cases have been reported from Kailahun (three cases in epidemiological week 40) and Kenema (five cases in epidemiological week 40) for the past four weeks. These areas had previously reported high levels of transmission. Reports from responders suggest this fall is a genuine decline in incidence, although further investigation will be required before this can be confirmed.

HEALTH-CARE WORKERS

The high number of EVD infections in health-care workers (HCWs) continues to be a cause of great concern. 401 HCWs are known to have been infected with EVD up to the end of 5 October. 232 HCWs have died (table 2).

Figure 3: Ebola virus disease cases reported each week from Sierra Leone and Freetown
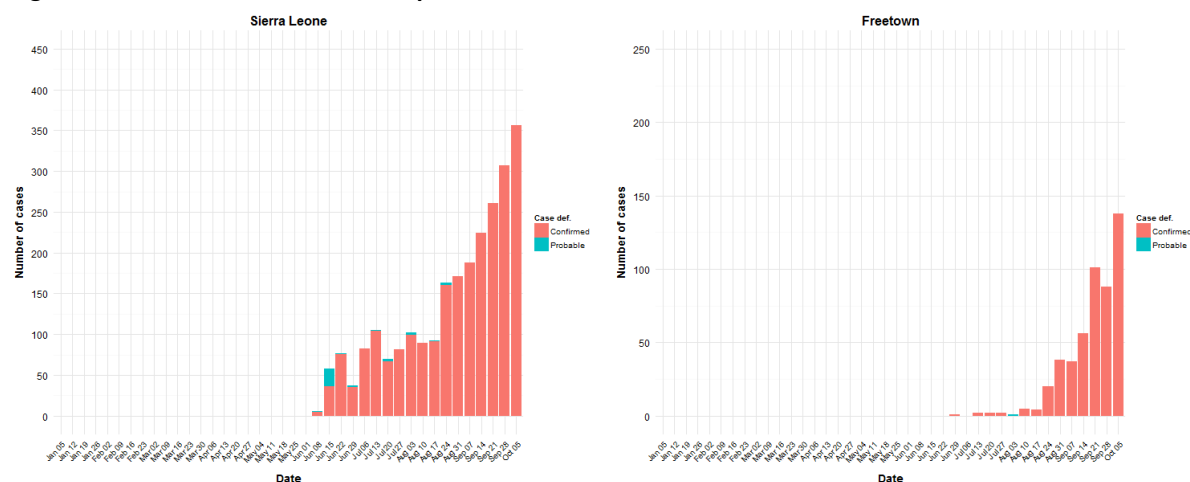
Data are based on official information reported by Ministries of Health. These numbers are subject to change due to ongoing reclassification, retrospective investigation and availability of laboratory results.

**Table 2: Ebola virus disease infections in healthcare workers as of 5 October 2014**

Country	Case definition	Cases	Deaths
Guinea	Confirmed	65	30
	Probable	8	8
	Suspected	0	0
	All	**73**	**38**
Liberia	Confirmed	75	63
	Probable	89	27
	Suspected	24	4
	All	**188**	**94**
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**
Total		401	232

*Nigeria is not classed as a country with widespread and intense transmission. Data are based on official information reported by Ministries of Health up to the end of 5 October for Guinea and Sierra Leone, and 4 October for Liberia. These numbers are subject to change due to ongoing reclassification, retrospective investigation and availability of laboratory results.

GEOGRAPHICAL DISTRIBUTION AND NEWLY AFECTED DISTRICTS

Figure 4 shows the location of cases throughout the countries with widespread and intense transmission. Eight districts in which previous cases were confirmed have reported no cases during the 21 days prior to the end of 5 October (seven districts in Guinea, one in Sierra Leone). In Guinea, the district of Lola has now reported cases of EVD for the first time (three confirmed cases).

Figure 4: Geographical distribution of new cases and total cases in Guinea, Liberia, and Sierra Leone
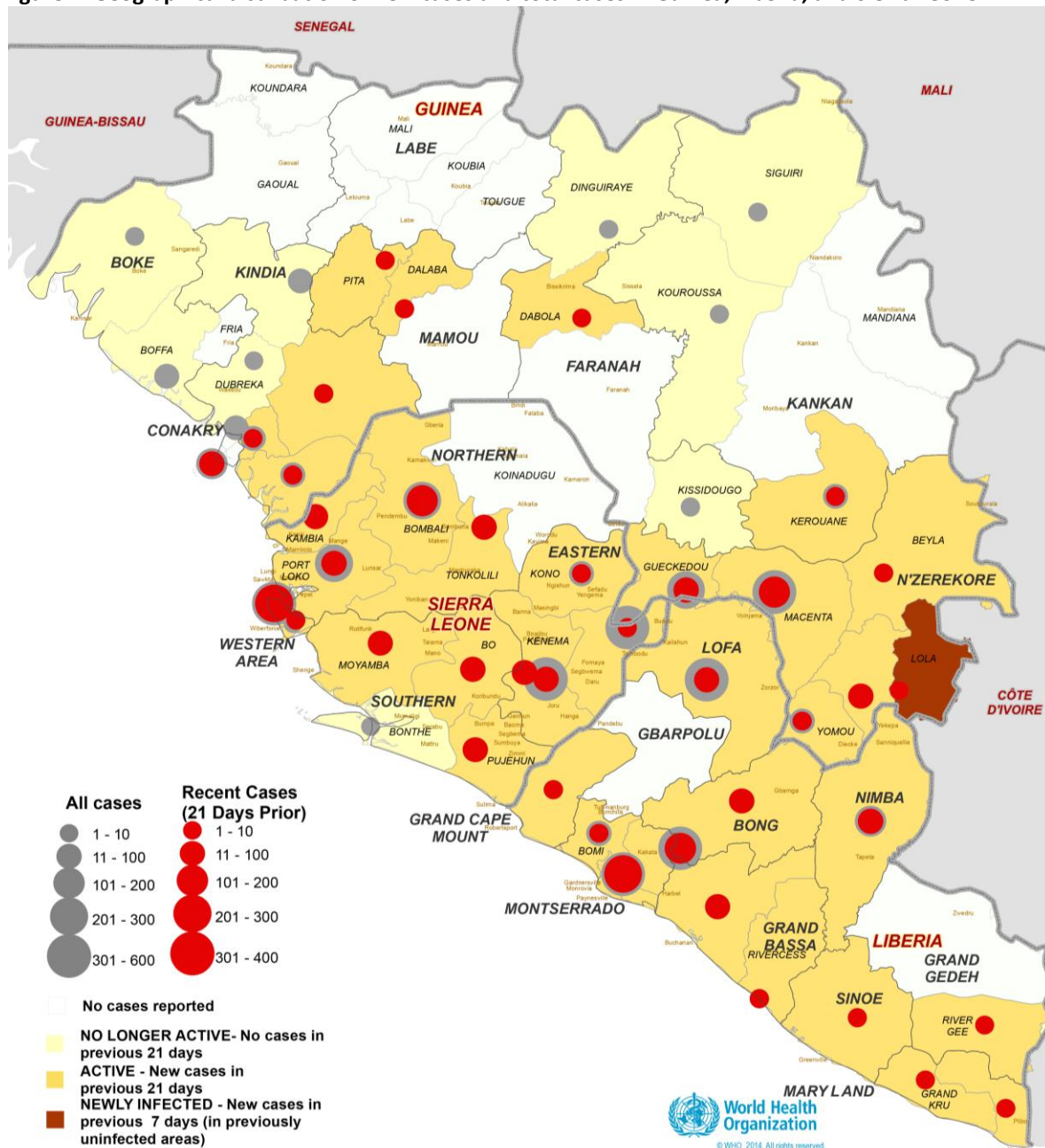
Data are based on official information reported by Ministries of Health up to the end of 5 October for Guinea and Sierra Leone, and 4 October for Liberia. The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World 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.

RESPONSE IN COUNTRIES WITH WIDESPREAD AND INTENSE TRANSMISSION

In accordance with the aim of achieving full geographic coverage with complementary Ebola response activities in countries with widespread and intense transmission, WHO is monitoring response efforts in five domains (figure 5). The most recent developments in each domain are detailed below.

Case management: Ebola treatment centres, referral, and infection prevention and control

In Liberia, a new EVD isolation centre was established in Maryland district. However, the number of beds currently available in Liberia and Sierra Leone still falls well short of the capacity required (table 3).

A multidisciplinary team of 165 Cuban HCWs has now arrived in Sierra Leone. WHO is providing logistical support and training to the team to ensure they are deployed to areas that have been hardest hit by the outbreak.

Table 3: Bed capacity and bed requirements for patients with Ebola virus disease

Country	Current number of beds	Estimated number of beds required	Current capacity/estimated demand (%)
Guinea	160	210	76%
Liberia	620	2930	21%
Sierra Leone	304	1148	26%

Bed capacity in each district is planned on the basis of a needs assessment carried out by the relevant Ministry of Health.

Case confirmation

Eleven laboratories (two in Guinea, five in Liberia, and four in Sierra Leone) are now operating at full capacity. However, laboratory data are yet to be fully integrated with clinical surveillance systems.

Surveillance

In Guinea, all districts apart from Dalaba and Lola report that more than 90% of registered contacts were seen each day during epidemiological week 40. In Liberia, only Montserrado district, which includes the capital Monrovia, has reported that 90% of registered contacts were seen on a daily basis. In Sierra Leone, seven of 14 districts reported that 90% of registered contacts were seen on a daily basis. However, many contacts in many areas are not registered with or known to the relevant authorities.

Safe and dignified burials

In Liberia, a newly established Ebola Task Force is now able to dispatch trained dead-body-management teams to ETCs and into communities to conduct safe burials. The Liberian Red Cross has trained additional dead-body-management teams in Montserrado district, which includes the capital Monrovia. The non-governmental organization Global Communities will fund the teams. In Sierra Leone, mechanisms for safe burial are now in place in all 14 districts.

Social mobilization

In Guinea, as part of the Tabaski Festival, religious leaders were mobilized to deliver Ebola-prevention messages in 7000 sermons across the country. This effort was supplemented by an SMS-based campaign on hygiene practices. UNICEF is supporting a new national organization for survivors of EVD to facilitate their social reintegration, and help reduce the stigma associated with EVD.

In Liberia, community engagement and empowerment of civil society continues. However, denial of the existence of EVD remains a challenge.

In Sierra Leone, a National Communication Strategy on Ebola was presented to the Ministry of Health for approval. If approved, social mobilization activities linked to the strategy will be monitored in all districts.

Figure 5: Response monitoring for Guinea, Liberia, and Sierra Leone as at 5 October 2014
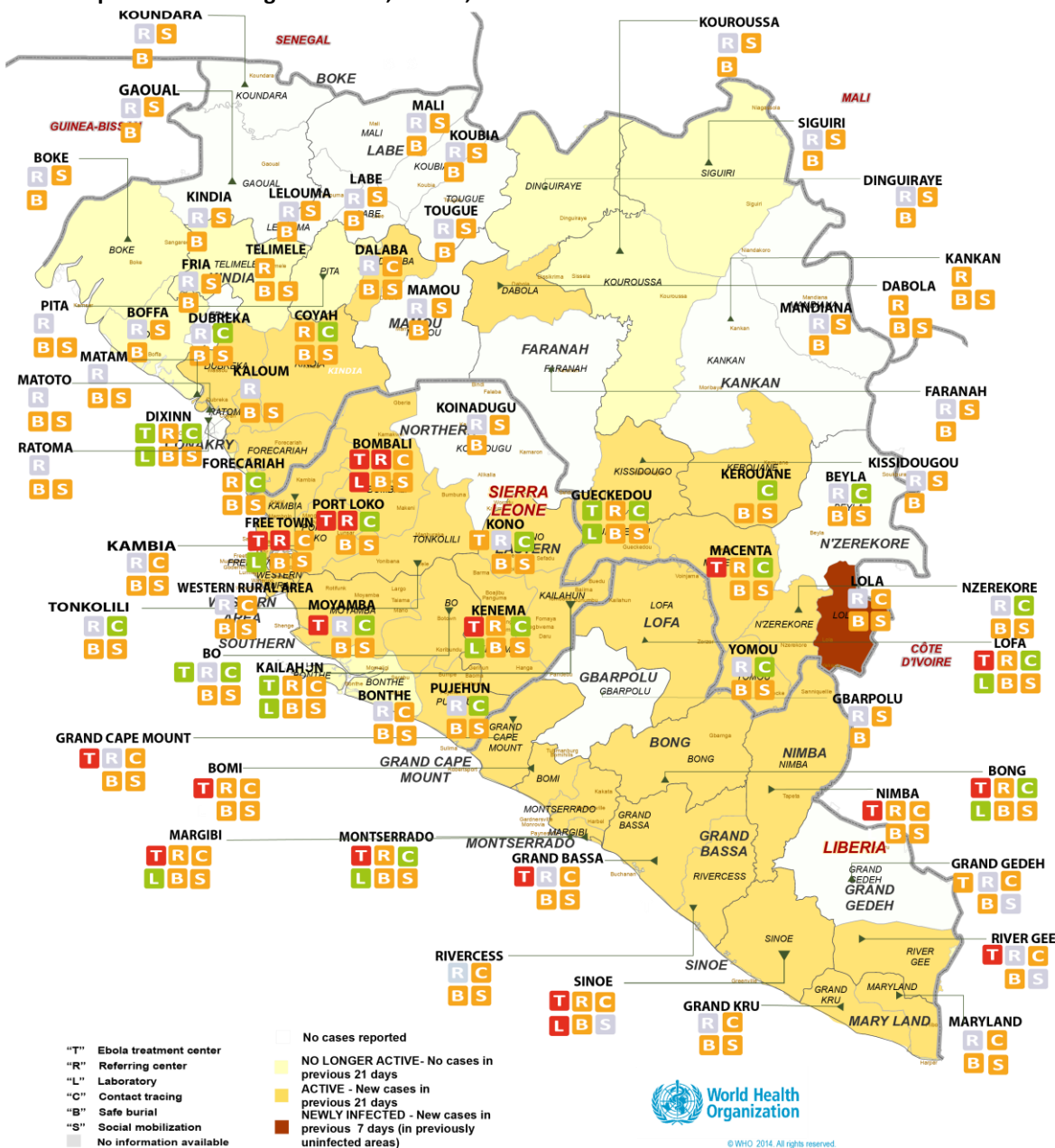
A full key to the color-coding of each indicator is contained in Annex 3. The data presented here are gathered from various secondary sources, including Ministries of Health and WHO reports, OCHA, UNICEF in Conakry and Geneva, and situation reports from non-governmental organizations. Information obtained 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

Three countries, Nigeria, Senegal, 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. In Senegal, there has been one case, but as yet there have been no deaths or further suspected cases attributable to Ebola (table 4). On 30 September 2014, the Pan American Health Organization/World Health Organization (PAHO/WHO) was informed of the first confirmed imported case of EVD in the United States of America. The patient is an adult with recent travel history to West Africa who developed symptoms compatible with EVD on 24 September 2014, approximately 4 days after arriving in the United States of America. The patient sought medical care on 26 September 2014, and was admitted into isolation on 28

September 2014 at Texas Health Presbyterian Hospital in Dallas. Samples were sent for testing to the US Centers for Disease Control and Prevention in Atlanta, Georgia, and to the Texas state laboratory. Results were positive for Ebola virus.

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 (27 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 (30 days ago). In the United States of America, 48 contacts are being followed up.

Table 4: Ebola virus disease cases and deaths in Nigeria, Senegal, and the United Sates of America up to the end of 5 October 2014

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**
United States of America	Confirmed	1	0
	Probable	..*	..*
	Suspected	..*	..*
	All	**1**	**0**
	Total	**22**	**8**

*No 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

The second meeting of the Emergency Committee convened by the WHO Director-General under the IHR 2005 regarding the 2014 EVD outbreak in West Africa was conducted with members and advisors of the Emergency Committee through electronic correspondence from 16 September 2014 through 21 September 2014. The Committee emphasized that all unaffected States with land borders adjoining States with EVD transmission should urgently establish surveillance for clusters of unexplained fever or deaths due to febrile illness; establish access to a qualified diagnostic laboratory for EVD; ensure that health workers are aware of and trained in appropriate IPC procedures; and establish rapid response teams with the capacity to investigate and manage EVD cases and their contacts. Assessment of preparedness in States neighboring States with EVD transmission is ongoing.

The Committee also recommends that all States should be prepared to detect, investigate, and manage Ebola cases; this should include assured access to a qualified diagnostic laboratory for EVD and, where appropriate, the capacity to manage travelers originating from known Ebola-infected areas who arrive at international airports or major land crossing points with unexplained febrile illness.

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 5 October 2014, there have been 71 cases (30 confirmed, 26 probable, 15 suspected) of Ebola virus disease (EVD) reported in the Democratic Republic of the Congo, including eight among health-care workers (HCWs). In total, 43 deaths have been reported, including eight among HCWs.

816 contacts have now completed 21-day follow-up. Of 305 contacts currently being monitored, all (100%) were seen on 5 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. 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
⬜ (grey)	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
⬜ (grey)	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
⬜ (grey)	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)
⬜ (grey)	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
⬜ (grey)	Capacity needed, but incomplete information available
⬜	No capacity needed in this area