

**OVERVIEW**

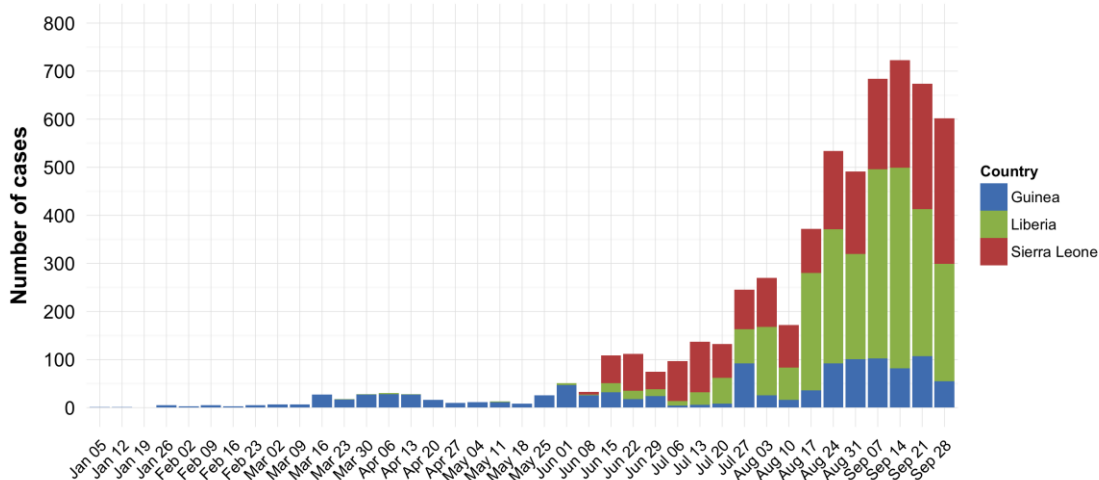
The total number of probable, confirmed and suspected cases (see Annex 1) in the current outbreak of Ebola virus disease (EVD) in West Africa reported up to 28 September 2014 is 7178, with 3338 deaths. Countries affected are Guinea, Liberia, Nigeria, Senegal and Sierra Leone. Figure 1 shows the total number of confirmed and probable cases in the three high-transmission countries (Guinea, Liberia, and Sierra Leone) reported in each epidemiological week between 30 December 2013 (start of epidemiological week 1) and 28 September 2014 (end of epidemiological week 39). For the second week in a row the total number of reported new cases has fallen. It is clear, however, that EVD cases are under-reported from several key locations. Transmission remains persistent and widespread in Guinea, Liberia and Sierra Leone, with strong evidence of increasing case incidence in several districts. There are few signs yet that the EVD epidemic in West Africa is being brought under control.

**OUTLINE**

This is the sixth 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. The data contained in this report are based on the best information available. Substantial efforts are ongoing to improve the availability and accuracy of information about both the epidemiological situation and the implementation of the response.

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 (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).

**Figure 1: Confirmed and probable cases of Ebola virus disease in Guinea, Liberia, and Sierra Leone**



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.

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

## 1. COUNTRIES WITH WIDESPREAD AND INTENSE TRANSMISSION

The upward epidemic trend continues in Sierra Leone and most probably also in Liberia. By contrast, the situation in Guinea appears to be more stable, though it must be emphasized that in the context of an outbreak of EVD, a stable pattern of transmission is still of grave concern, and could change quickly (figure 1; table 1).

**Table 1: Probable, confirmed, and suspected cases in Guinea, Liberia, and Sierra Leone as at end 28 September 2014**

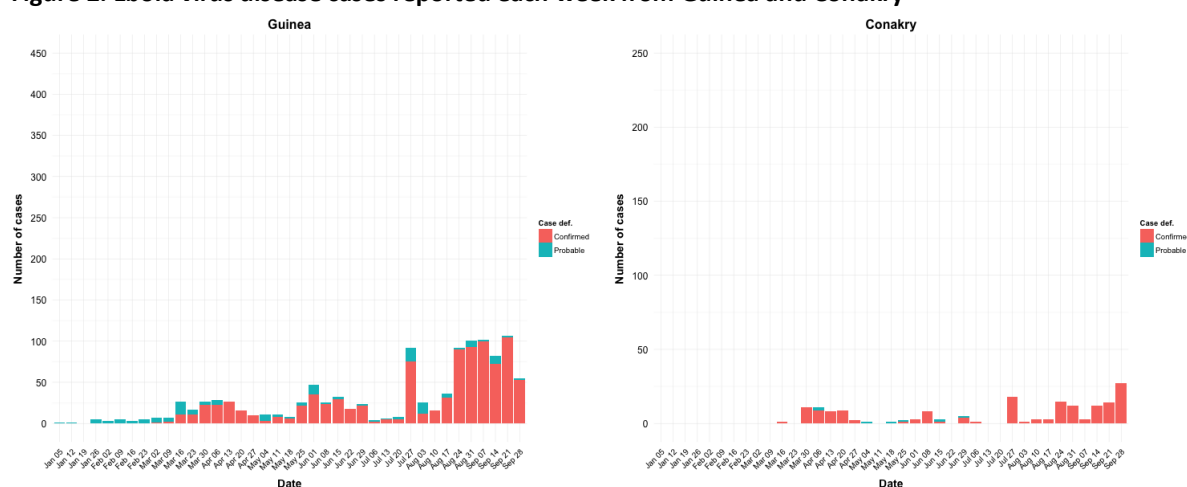
Country	Case definition	Cases	Cases in past 21 days	Cases in past 21 days/total cases	Deaths
Guinea	Confirmed	950	230	24%	535
	Probable	170	14	8%	170
	Suspected	37	23	62%	5
	<b>All</b>	<b>1157</b>	<b>270</b>	<b>23%</b>	<b>710</b>
Liberia	Confirmed	927	280	30%	890
	Probable	1656	687	42%	664
	Suspected	1113	672	60%	444
	<b>All</b>	<b>3696</b>	<b>1639</b>	<b>44%</b>	<b>1998</b>
Sierra Leone	Confirmed	2076	788	38%	574
	Probable	37	0	0%	37
	Suspected	191	106	56%	11
	<b>All</b>	<b>2304</b>	<b>894</b>	<b>39%</b>	<b>622</b>
<b>Total</b>		<b>7157</b>	<b>2800</b>	<b>39%</b>	<b>3330</b>

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## GUINEA

Reports from Guinea show a slight fall in the number of new cases reported compared with each of the past five weeks (figure 2). This fall is largely attributable to a drop in the number of new cases reported from Macenta district, which had seen a surge in the number of new cases over the past five weeks.

**Figure 2: Ebola virus disease cases reported each week from Guinea and Conakry**



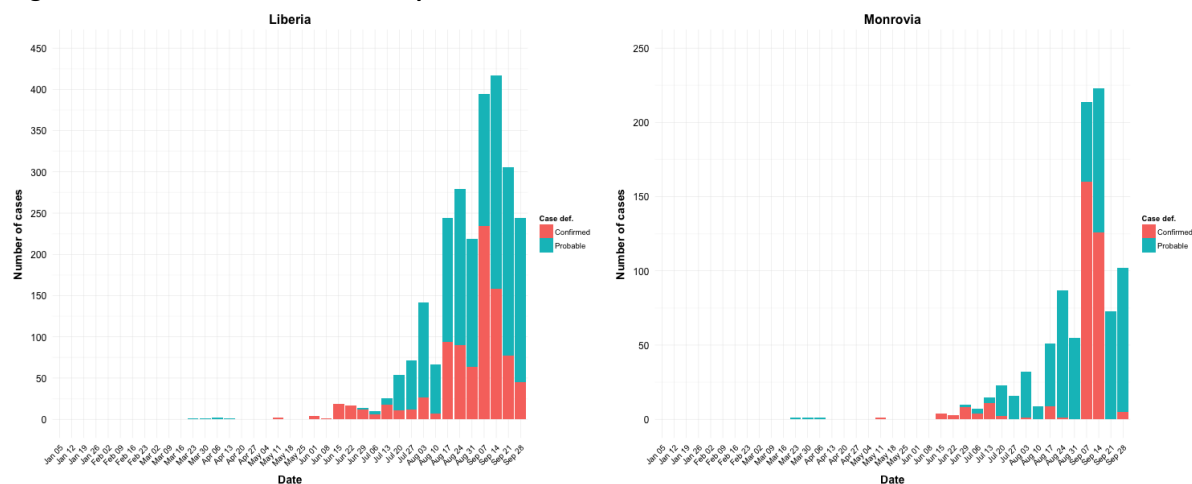
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Transmission is persistent in Gueckedou, the region in which the outbreak originated, which has reported between five and 20 new cases over the past 10 weeks. There has been a slight increase in the number of new cases reported in the capital, Conakry, with 27 new confirmed cases reported this week. Beyla district, which borders Côte d'Ivoire, has now reported its first confirmed case.

## LIBERIA

The continued fall in the number of reported new cases shown in figure 1 is largely attributable to the sharp drop in the number of confirmed new cases reported from Liberia over the past two weeks. Last week there were no new reported confirmed cases from the capital, Monrovia, which in previous weeks had reported a surge in cases. This week, five new confirmed cases have been reported in Monrovia, but there remains compelling evidence obtained from responders and laboratory staff in the country that there is widespread under-reporting of new cases, and that the situation in Liberia, and in Monrovia in particular, continues to deteriorate.

**Figure 3: Ebola virus disease cases reported each week from Liberia and Monrovia**



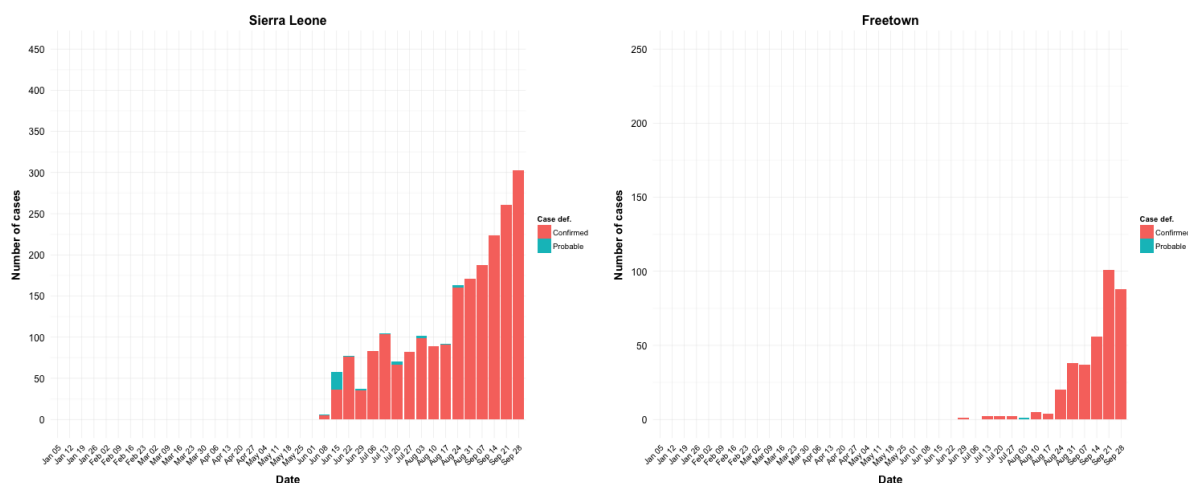
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A large number of suspected new cases (and deaths among suspected cases) have been reported from Liberia over the past week. It is very likely that a substantial proportion of these suspected cases are genuine cases of EVD, and that the reported fall in confirmed cases reflects delays in matching laboratory results with clinical surveillance data. Efforts are being made to urgently address this problem, and it is likely that the figures will be revised upwards in due course. At the present time, the numbers of probable and suspected cases, together with those confirmed, may be a more accurate reflection of case numbers in Liberia. The counties of Bong, Grand Bassa, Margibi and Nimba continue to report high numbers of new cases. There has been little change in the number of new cases reported in Lofa, which borders Gueckedou in Guinea, for the past three weeks, with 38 confirmed and probable cases reported this week.

## 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 six weeks. The neighbouring districts of Port Loko, Bombali, and Moyamba, which are adjacent to the capital, Freetown, have now been quarantined after a surge in new cases over the past four weeks. Tonkolili has also reported a rise in the number of new cases this week. By contrast, a very low number of new cases have been reported from Kailahun and Kenema for the past two weeks. These areas had previously reported high levels of transmission. Further investigation will be required to confirm whether this fall is genuine, or a result of under-reporting. At present, the latter appears more likely.

**Figure 4: Ebola virus disease cases reported each week from Sierra Leone and Freetown**



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### HEALTH-CARE WORKERS

The high number of EVD infections in health-care workers (HCWs) continues to be a cause of great concern. 377 HCWs have now been infected with EVD as of 28 September, 216 of whom have died (table 2).

**Table 2: Ebola virus disease infections in healthcare workers as of 28 September 2014**

Country	Case definition	Cases	Deaths
Guinea	Confirmed	59	27
	Probable	8	8
	Suspected	0	0
	<b>All</b>	67	35
Liberia	Confirmed	73	63
	Probable	88	28
	Suspected	24	4
	<b>All</b>	185	95
Nigeria	Confirmed	11	5
	Probable	0	0
	Suspected	0	0
	<b>All</b>	11	5
Sierra Leone	Confirmed	111	78
	Probable	2	2
	Suspected	1	1
	<b>All</b>	114	81
<b>Total</b>		377	216

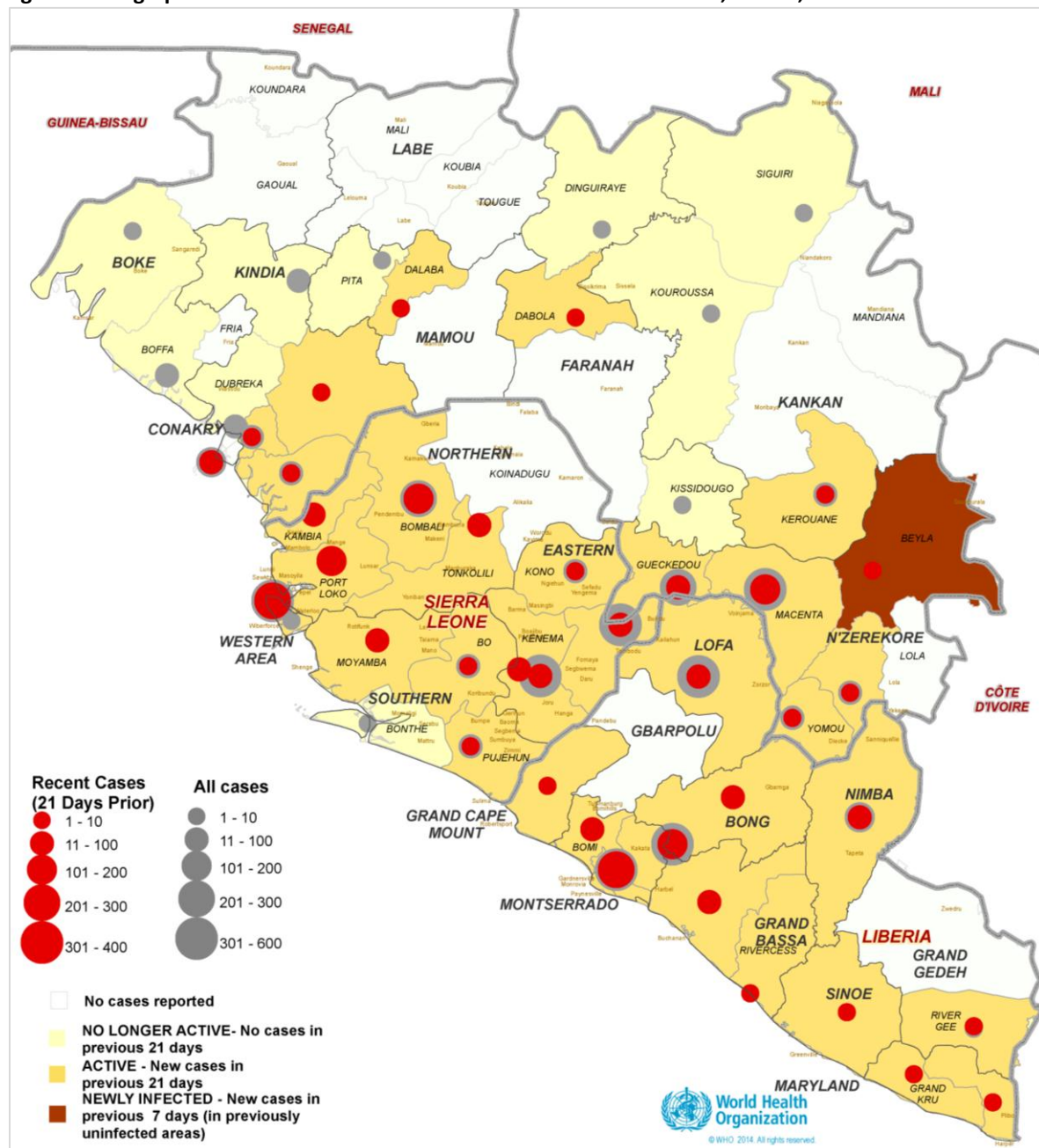
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### GEOGRAPHICAL DISTRIBUTION AND NEWLY AFFECTED DISTRICTS

Figure 5 shows the location of cases throughout the countries with widespread and intense transmission. The cumulative number of cases to date in each area is shown (grey circles), together with the number of cases that have occurred within the 21 days (red circles) up to 28 September. Ten districts in which previous cases were confirmed have reported no cases during the 21 days prior to the end of 28 September (nine districts in Guinea, one in Sierra Leone). In Guinea, there has

been one confirmed case reported in the newly affected Beyla district, on the border with Côte d'Ivoire. In Liberia, the previously uninfected area of Grand Kru, near the border with Côte d'Ivoire, has now reported six confirmed cases of EVD.

**Figure 5: Geographical distribution of new cases and total cases in Guinea, Liberia, and Sierra Leone**



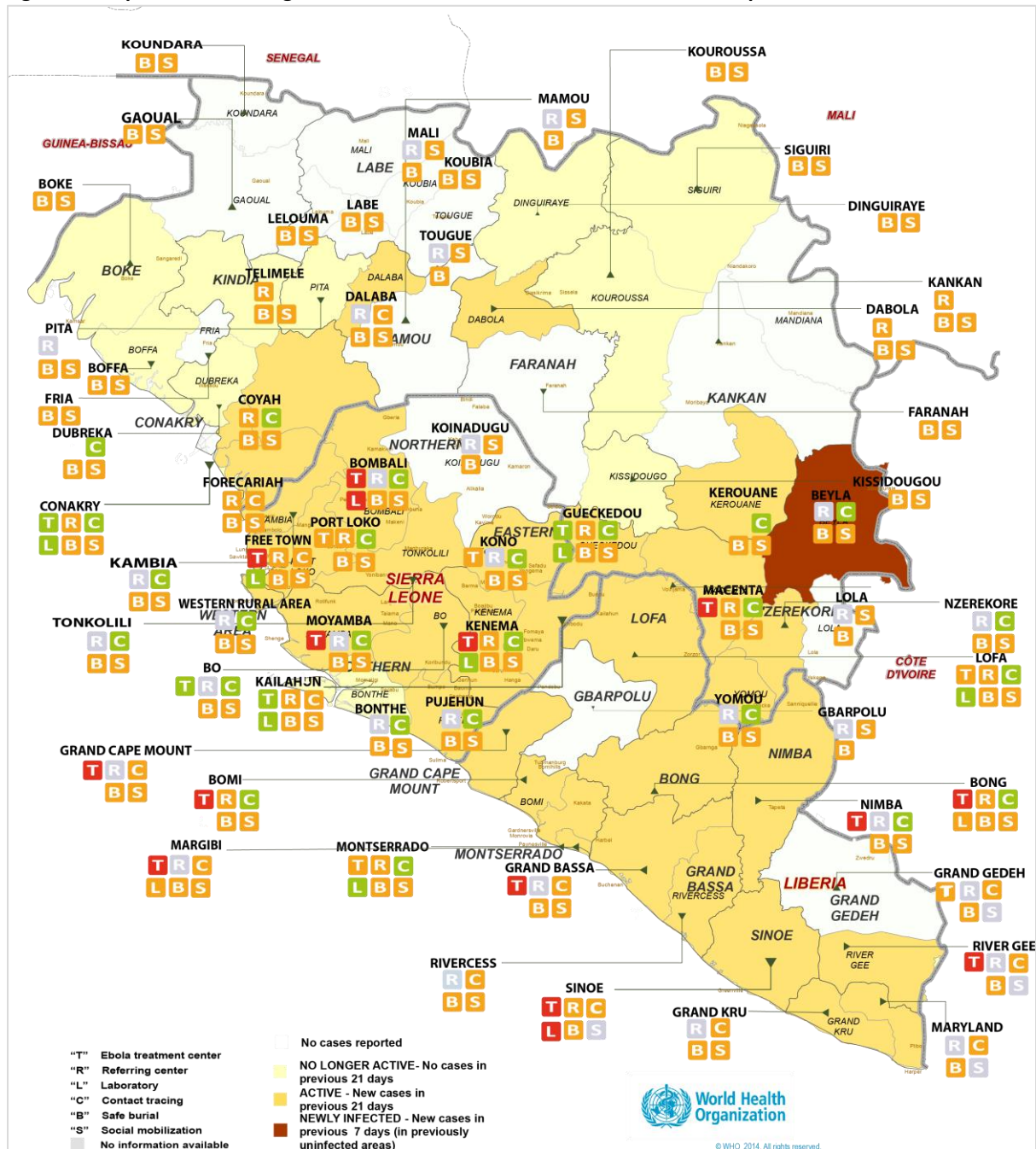
Data are based on official information reported by Ministries of Health. The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city 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.



## 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 6). The most recent developments in each domain are detailed below.

Figure 6: Response monitoring for Guinea, Liberia, and Sierra Leone as of 28 September 2014



A full key to the colour 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.

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

One new referral unit has now opened in Sinoie district (Sinoie county) in Liberia (figure 6). Also in Liberia, a site has been identified by the Ministry of Health for a referral unit in Grand Kru district

(Maryland county): an area in the south of the country which only recently reported its first confirmed cases of EVD. In Sierra Leone, three isolation centres were opened in Bombali district. No new Ebola treatment centres (ETCs) opened this week; there remains a significant shortfall in capacity. In Liberia, an estimated 1500 beds are required in addition to those in place or soon to be in place; in Sierra Leone, an additional 450 beds are needed.

WHO will convene a meeting of the Guideline Development Group on the 6–7 October, which will discuss the development of new guidelines on the use of personal protective equipment to control health-care associated Ebola transmission, and to allow satisfactory working conditions in the context of EVD outbreak response.

### **Case confirmation**

Two US Navy mobile laboratories have now arrived in Liberia. One team will be based in Gbarnga (Bong county), with the other based in Montserrado (the district containing the capital, Monrovia). Both teams will be operational by 5 October (figure 6). In Sierra Leone, the Chinese mobile laboratory team based in Freetown started testing samples on 29 September 2014, with a testing capacity of 20 samples per day. All other mobile laboratories in Guinea, Sierra Leone and Liberia remain functional and are operating at full capacity.

### **Surveillance**

In Guinea, contact tracing efforts need to be reinforced in the districts of Dalaba and Forecariah. In Liberia, daily contact tracing achievement was under 90% on average during the week to 28 September in the districts of Grand Cap Mount, Grand Gedeh, Grand Kru, River Ghee, Margibi, Maryland, and Rivercess. In Sierra Leone, under 90% of contacts were traced each day, on average, during the week to 28 September in Kailahun district and the capital, Freetown. Elsewhere, the success rate was over 90%, though it should be kept in mind that no contacts are traced for cases that are unreported.

### **Safe and dignified burials**

In Liberia, an International non-governmental organisation, Global Communities, has started to support the Ministry of Health in training to facilitate the safe handling of dead bodies and management of safe burials in the districts of Bomi, Nimba, and Sinoe.

### **Social mobilization**

In Guinea, a door-to-door campaign including the delivery of hygiene kits (soap, chlorine) and flyers has reached 71 000 households composed of 486 000 people. The campaign's messages were reinforced with radio programmes and religious activities. In addition, outreach activities succeeded in opening a dialogue with some households in the sub-prefecture of N'zerekore that had been resistant to mobilization efforts.

In Sierra Leone, communication and social mobilization activities continue in all districts, with the use of radio jingles, discussion programmes (daily on Radio Maria) and community dialogues. Efforts are ongoing to sensitize communities to the importance of self-reporting in selected communities in Kailahun and Bonthe. In Bombali, communities have been identified as being at high risk of transmission, and have been targeted for communication and engagement.

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

Two countries, Nigeria and Senegal, have now reported a case or cases imported from a country with widespread and intense transmission. In Nigeria, there have been a total of 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 3).

Contact tracing and follow-up is ongoing. In Nigeria, all contacts (out of 891 total contacts) have now completed 21-day follow-up (362 contacts in Lagos, 529 contacts in Port Harcourt), with no further cases of EVD reported. The last confirmed case in Lagos was reported on 5 September. The last confirmed case in Port Harcourt was reported on 1 September.

In Senegal, all contacts have now completed 21-day follow-up, with no further cases of EVD reported. The last confirmed case in the country was reported on 28 August. A 42-day follow-up (2 × 21-day incubation period) period with no further cases must have elapsed before an outbreak in a country is considered to have ended.

**Table 3: Ebola virus disease cases and deaths in Nigeria and Senegal as at end 28 September 2014**

Country	Case definition	Cases	Deaths
<b>Nigeria</b>	Confirmed	19	7
	Probable	1	1
	Suspected	0	0
	<b>All</b>	<b>20</b>	<b>8</b>
<b>Senegal</b>	Confirmed	1	0
	Probable	0	0
	Suspected	0	0
	<b>All</b>	<b>1</b>	<b>0</b>
	<b>Total</b>	<b>21</b>	<b>8</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.

### **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 States should reinforce preparedness, validate preparation plans and check their state of preparedness through simulations and adequate training of personnel.



## ANNEX 1. CATEGORIES USED TO CLASSIFY EBOLA CASES

Ebola cases are classified as either 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 28 September 2014, there have been 70 cases (30 confirmed, 26 probable, 14 suspected) of Ebola virus disease (EVD) reported in the Democratic Republic of the Congo, including eight among health-care workers (HCWs). In total, 42 deaths have been reported, including eight among HCWs.

666 contacts have now completed 21-day follow-up. Of 279 contacts currently being monitored, 265 (95%) were seen on 28 September, 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.

<b>Laboratory testing capacity</b>	
	None OR inadequate
	Pending deployment
	Functional and meeting demand
	Capacity needed, but incomplete information available
	No capacity needed in this area
<b>Treatment capacity, either in Ebola Treatment Centres (ETCs) or referral/isolation centres</b>	
	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
<b>Contact tracing/case finding contacts under follow up</b>	
	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
<b>Safe Burial</b>	
	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
<b>Social Mobilisation</b>	
	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