WHO: Ebola Response Roadmap Situation Report
18 September 2014

World Health
Organization

This is the fourth in a series of regular situation reports on the Ebola Response Roadmap[1]. 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. Additional indicators will be reported as data are consolidated.

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: those with widespread and intense transmission (Guinea, Liberia, and Sierra Leone); those with an initial case or cases, or with localized transmission (Nigeria, Senegal); and 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 a separate, unrelated outbreak of Ebola virus disease is occurring, is also provided (see Annex 1).

OVERVIEW

The total number of probable, confirmed and suspected cases (see Annex 2) in the current outbreak of Ebola virus disease (Ebola) in West Africa was 5335, with 2622 deaths, as at the end of 14 September 2014 (table 1). Countries affected are Guinea, Liberia, Nigeria, Senegal and Sierra Leone. Figure 1 below shows the total number of cases by country that have been reported in each epidemiological week between the start of 30 December 2013 (start of epidemiological week 1) and end 14 September 2014 (epidemiological week 37: 8 to 14 September).

Figure 1: Combined epidemiological histogram
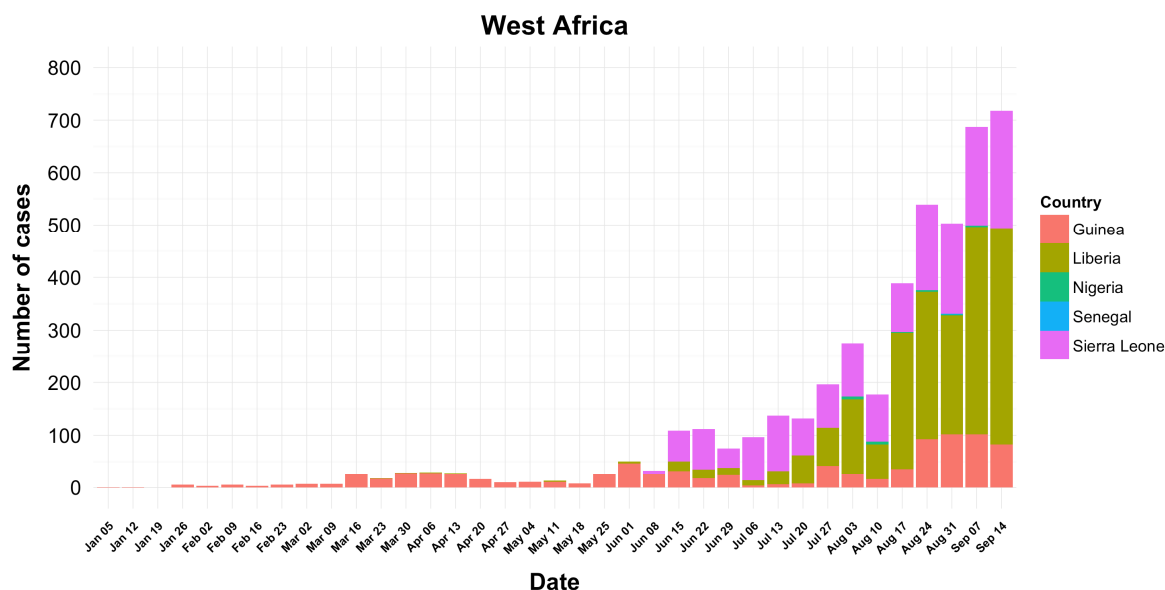
Data are based on official information reported by Ministries of Health. These numbers are subject to change due to ongoing reclassification, retrospective investigation and availability of laboratory results. Epidemiological week 37: 8 September to 14 September.

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[1]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 the three countries that have widespread and intense transmission (Guinea, Liberia, and Sierra Leone: table 1). The surge in Liberia is driven primarily by a continued increase in the number of cases reported in the capital, Monrovia.

Table 1: Probable, confirmed, and suspected cases in Guinea, Liberia, and Sierra Leone as at end 14 September 2014

Country	Case definition	Cases			Deaths
		Total	Last 21 days	Last 21 days/Total (%)	
Guinea	Confirmed	750	266	36%	435
	Probable	162	21	13%	161
	Suspected	30	25	83%	5
	All	**942**	**312**	**33**%	**601**
Liberia	Confirmed	812	462	57%	631
	Probable	1233	596	46%	518
	Suspected	675	398	59%	310
	All	**2710**	**1429**	**52**%	**1459**
Sierra Leone	Confirmed	1513	584	39%	517
	Probable	37	0	0%	34
	Suspected	123	69	56%	11
	All	**1673**	**653**	**39**%	**562**
Total		**5335**	**2394**	**45**%	**2622**

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.

The figures below show the numbers of confirmed and probable new cases over time in each of the countries with widespread and intense transmission, accompanied by numbers of cases over time in capital cities.

GUINEA

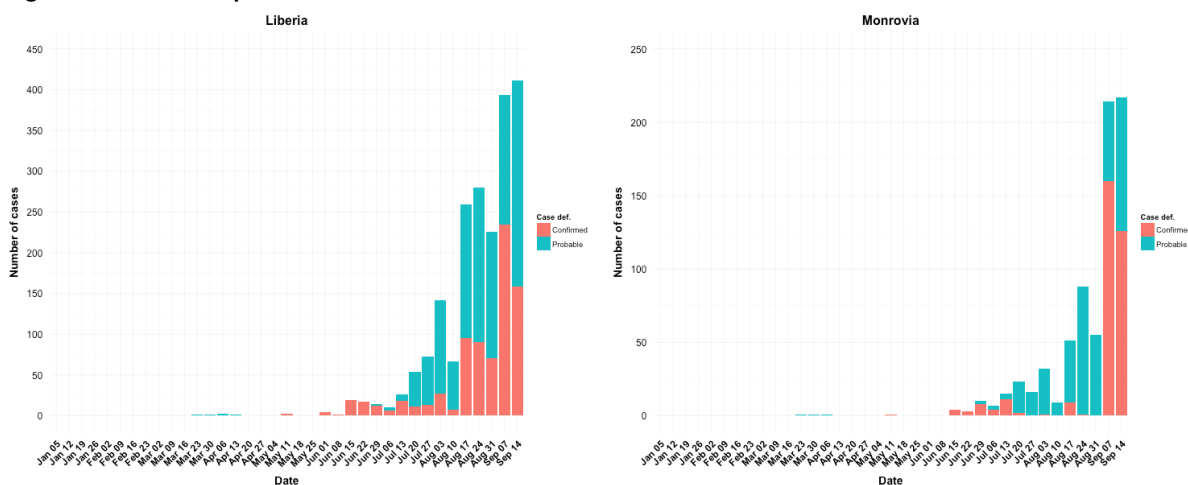**Figure 2: EVD cases reported each week from Guinea and Conakry**
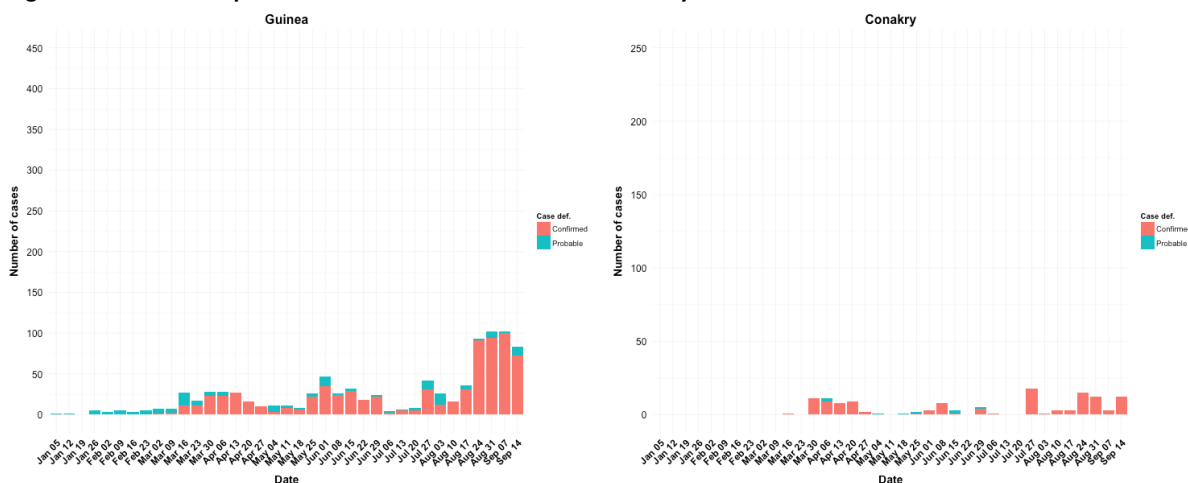
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The number of newly reported cases in week 37 (or date) has not increased (there has been a slight drop compared with the previous week, figure 2). This is largely attributable to a fall in the number of cases reported from Macenta, which borders Gueckedou, the origin of the outbreak. Transmission in the capital Conakry is sustained. In contrast with Liberia and Sierra Leone, several districts have not reported any cases (primarily in the north of the country), or have no newly reported cases in epidemiological week 37 (primarily in the north-east of the country). However, there is no indication of a sustained reduction in case incidence in Guinea.

LIBERIA

The number of newly reported cases is still rising week on week, primarily driven by a continuation of the recent surge in cases in the capital, Monrovia (figure 3). The number of new cases reported from Lofa county, which borders the Guinean districts of Macenta and Gueckedou, has not increased in week 37 though it is too soon to say whether incidence has stabilized in Lofa.

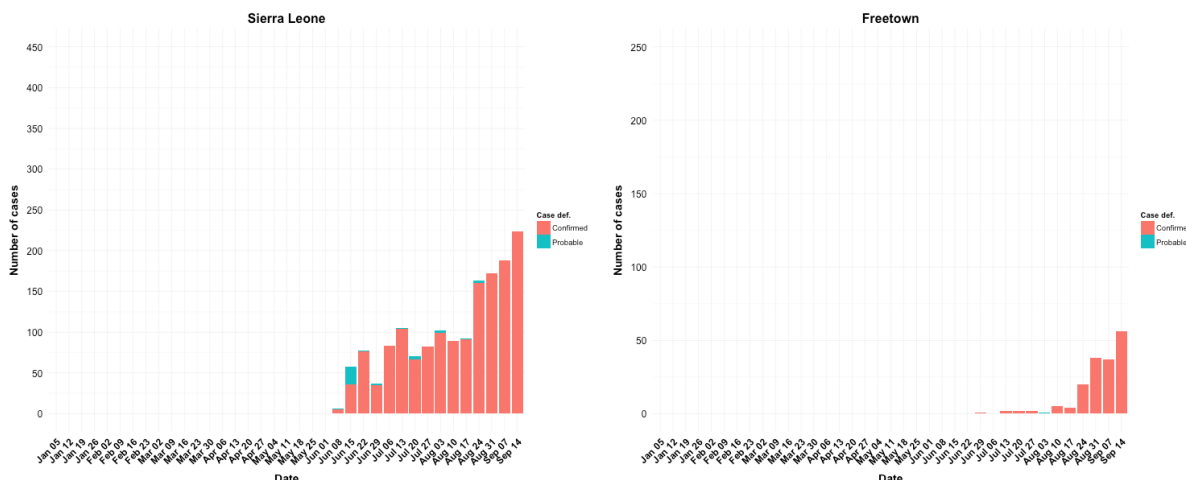**Figure 3: EVD cases reported each week from Liberia and Monrovia**

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. Epidemiological week 37: 8 September to 14 September.

In the past few months, staff from WHO, US CDC and other partners have been working closely with the Liberian Ministry of Health to improve data collection and to integrate sources of data to provide the best possible picture of this rapidly evolving outbreak. Some of this work includes consolidating several different databases and cross-checking numbers of cases reported by the Government of Liberia against cases from laboratory test results. During this process, many cases previously classified as probable and suspected are being reclassified, while at the same time approximately 100 previously unreported cases have been found. These new figures will be published soon, and will reflect significant improvements in data collection, and therefore provide a more accurate understanding of the situation. Liberia remains the country worst affected by the epidemic.

SIERRA LEONE

The incidence of EVD in Sierra Leone is still rising, with over 200 new cases reported in the past week (figure 4). Transmission remains high in the capital, Freetown, and the surrounding urban areas. The numbers of newly reported cases appear to have stabilised in Kailahun and Kenema, but a number of other districts have reported an increase in the number of new cases over the past week: Port Loko (a district adjacent to Freetown), Bo, Bombali, and Tonkolili.

Figure 4: EVD 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. Epidemiological week 37: 8 September to 14 September.

GEOGRAPHICAL DISTRIBUTION

The map in Figure 5 shows the location of cases throughout the countries with widespread and intense transmission (see also table 1). 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 14 September.

Nine districts in which previous cases were confirmed have reported no cases during the 21 days prior to the end of 14 September (six districts in Guinea, one in Sierra Leone, and two in Liberia). Two previously uninfected areas reported initial cases during the seven days prior to the end of 14 September. In Guinea, there has been one suspected case and one confirmed case in the newly affected Dalaba area. In Liberia, four probable and two suspected cases have now been reported in the newly affected Maryland area, which borders Côte d'Ivoire.

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 specific domains. The most recent developments in each domain are detailed below.

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

Increases in demand for Ebola Treatment Centre (ETC) beds and referral unit places are continuing to outstrip capacity in Guinea, Liberia, and Sierra Leone. Médecins Sans Frontières (MSF) is still the international partner providing most support throughout the affected countries, with 210 international staff and approximately 1,650 national staff contributing to the response in five Ebola treatment centres (ETCs: two in Guinea, two in Liberia, one in Sierra Leone). MSF is also contributing to the response in Senegal and Nigeria.

In Guinea, current ETC capacity stands at 130 beds. In Liberia, the current nationwide bed capacity of 315 is meeting less than 20% of demand. In Monrovia alone, 1210 beds are required; the current capacity is 240 beds. In Sierra Leone there are currently 165 beds for patients with EVD, meeting just 25% of national demand.

In Nigeria there has been no change in the capacity to admit cases, which is currently sufficient to meet demand. In Dakar, Senegal, there is currently capacity for nine beds to treat Ebola cases at the University Fann hospital.

Figure 5: Geographical distribution of new cases and total cases in Guinea, Liberia, and Sierra Leone
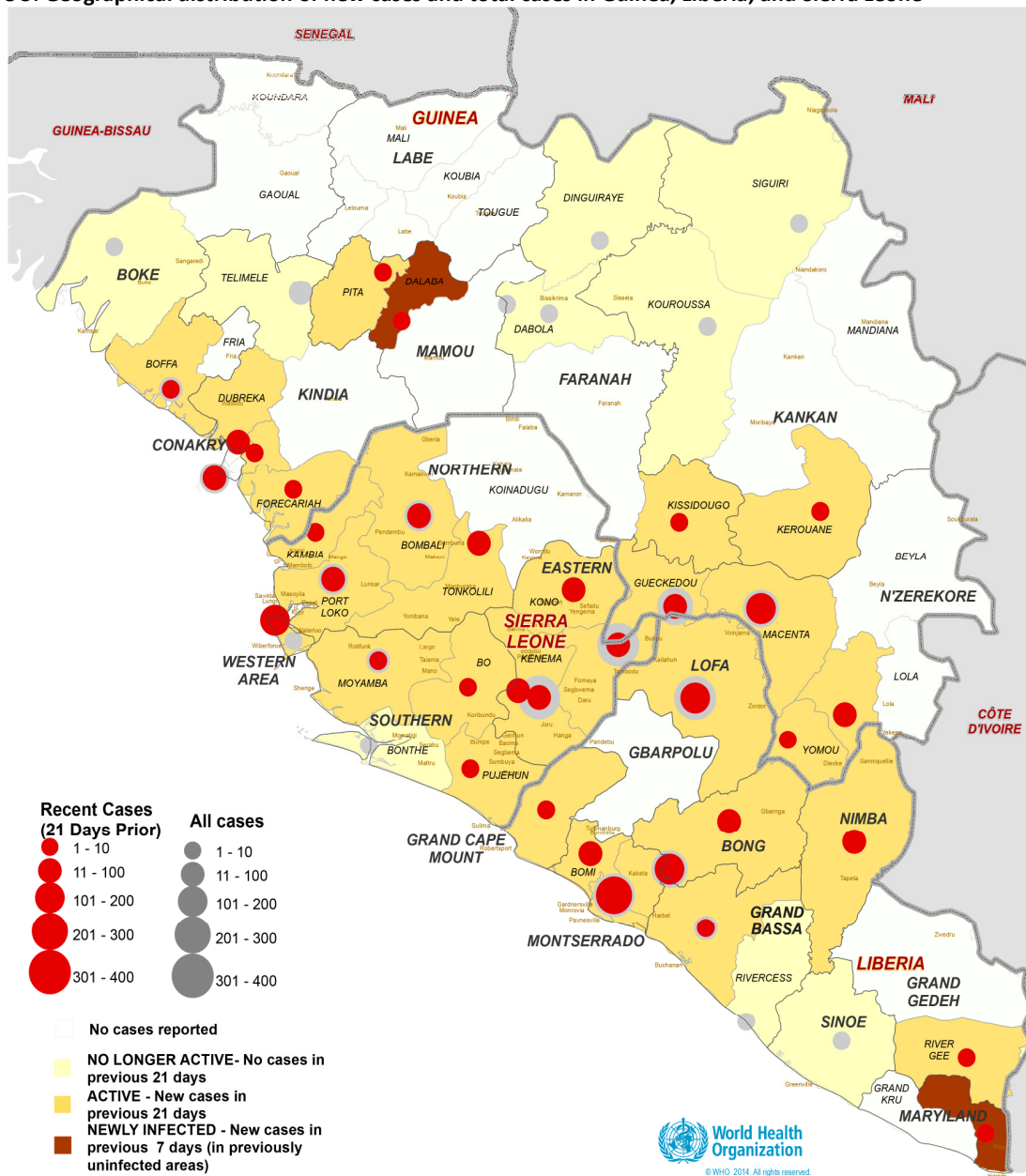
Data are based on official information reported by Ministries of Health. An area is defined as active or newly infected only when confirmed and/or probable cases are reported. These numbers are subject to change due to ongoing reclassification, retrospective investigation and availability of laboratory results.

Infections among healthcare workers are a particularly alarming feature of this outbreak. To date, 318 healthcare workers are known to have developed the disease, almost half of whom have died (table 2). WHO is working to ensure the safest conditions possible for staff deployed to the field and any health-care workers providing care to patients with Ebola.

Infection prevention and control (IPC) measures in affected countries must be strengthened. The distribution of hand hygiene stations needs to be increased in healthcare settings and throughout communities in the affected countries. Water and soap are still unavailable in some areas. Alcohol-based hand-rub solutions (hand sanitizers) need to be procured and distributed on a large scale. WHO has received a number of donations from companies producing alcohol-based hand-rubs, which should reach affected countries soon.

WHO is finalizing an IPC training strategy, and a work plan is being developed accordingly. Technical support is continuously provided for training, including for the training of trainers in African countries. New training materials have been developed. Several IPC training workshops have been or are being organized in Liberia, Republic of the Congo, Sierra Leone, and Zimbabwe. Collaboration is ongoing with US CDC on the Safety Training Course for Healthcare Workers Going to West Africa in Response to the 2014 Ebola Outbreak. A presentation on "Key measures for the prevention and control of Ebola virus disease" by WHO IPC expert will be broadcast on the 16 September through Webber Training.

Table 2: Ebola infections in healthcare workers as at end 14 September 2014

Country	Case definition	Cases			Deaths
		Total	Last 21 days	Last 21 days/total cases (%)	
Guinea	Confirmed	52	9	17%	22
	Probable	8	0	0%	8
	Suspected	1	1	100%	0
	All	**61**	**10**	**16%**	**30**
Liberia	Confirmed	66	3	4%	56
	Probable	85	18	21%	26
	Suspected	21	0	0%	3
	All	**172**	**21**	**12%**	**85**
Nigeria	Confirmed	11	2	18%	5
	Probable	0	0	0%	0
	Suspected	0	0	0%	0
	All	**11**	**2**	**18%**	**5**
Sierra Leone	Confirmed	71	1	1%	30
	Probable	1	0	0%	1
	Suspected	2	0	0%	0
	All	**74**	**1**	**1%**	**31**
Total		**318**	**34**	**11%**	**151**

Data reported 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.

Case diagnosis

Three laboratories are active in Guinea, and currently have sufficient capacity to meet demand in terms of quantity of cases and geographical coverage. Laboratory capacity in Liberia will need to be reassessed when new Ebola treatment centres open in Monrovia. In Sierra Leone, the high case load in Bombali and the western part of the country may necessitate the deployment of an additional mobile laboratory. In Kailahun district, the Public Health Agency of Canada has resumed its activities in coordination with the MSF ETC in the area. In Kenema, the CDC team-1 laboratory is testing samples from Kenema and Bo districts. In Freetown, the NICD Mobile Lab is testing samples from Freetown and the western part of the country.

Surveillance

Contact tracing capacity has now been strengthened throughout Sierra Leone.

Safe burials

The workload for burial teams in Liberia is overwhelming, with teams having to manage between 10 and 15 dead bodies each day. Efforts are being made to increase the number of safe burial teams. In Monrovia, six new teams are being trained to add to the existing six teams. The target is to manage a maximum of five dead bodies per team per day. Safe burial training is also being implemented in most affected counties (eg, Nimba, Bong, and Lofa), and other affected counties with an outbreak response team.

Figure 6: Response monitoring for Guinea, Liberia, and Sierra Leone
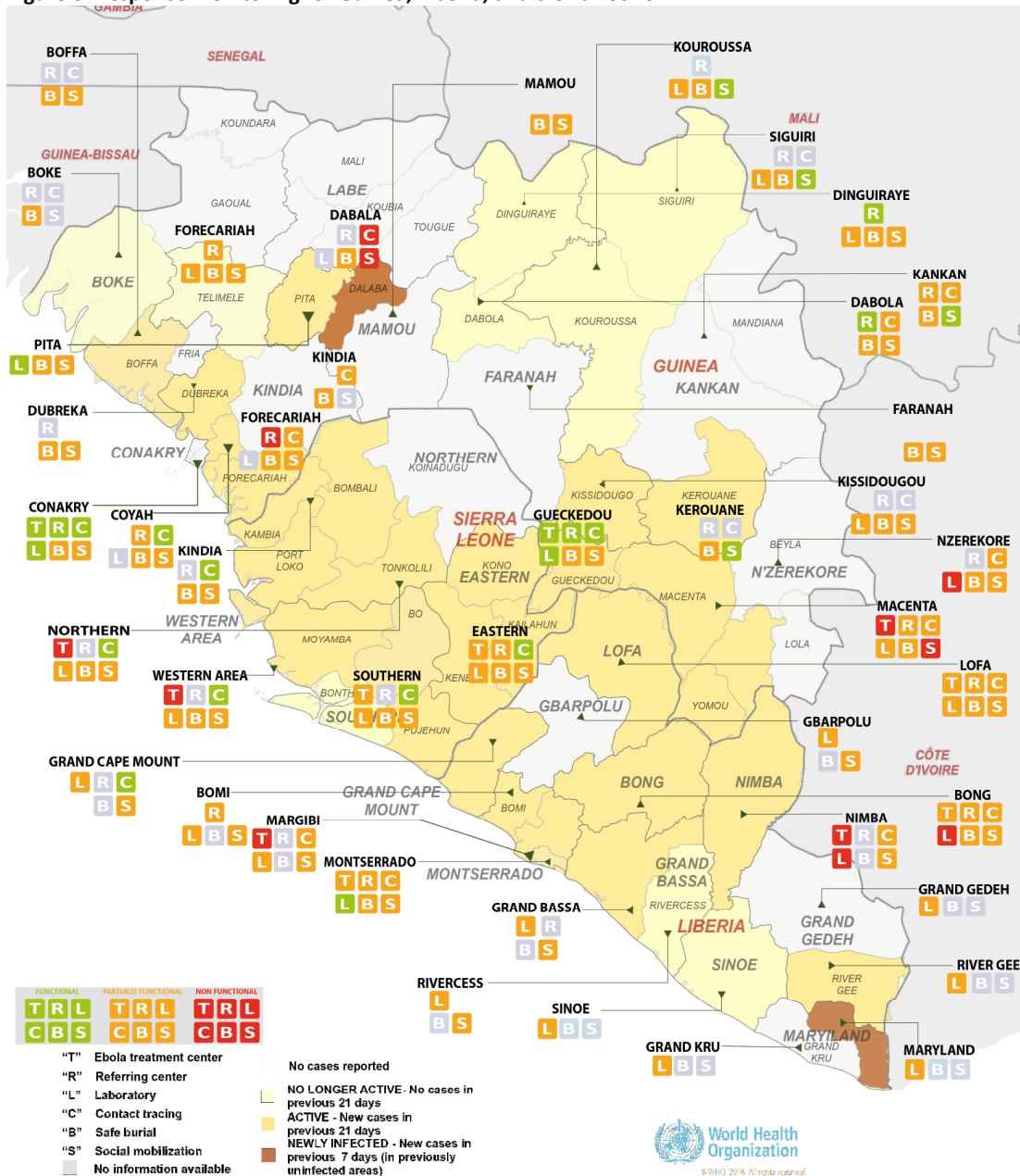
Social mobilization

Social Mobilization teams continue to be actively engaged in implementing Ebola response strategies in the three intense-transmission countries. In Sierra Leone, the focus is on providing intense training to outreach teams (about 28,500 people) that will be going house-to-house covering 1.5 million households between 19 and 21 September 2014, to listen to community concerns, provide appropriate knowledge about Ebola transmission, prevention, care and treatment, and to encourage families to take sick patients to treatment or observation facilities.

In Liberia, the renewed focus is on community engagement strategies as part of the planned Ebola/Community Care Units that will be set up at a district and sub-district level. The social mobilisation teams are also assessing common indicators to monitor and map related activities in each country.

In addition to the domains above, work is ongoing to provide short-term capacity to address critical gaps in essential services. The World Food Programme (WFP) has delivered 3000 metric tonnes of food for 147,500 people since April 2014. The United Nations Humanitarian Air Service (UNHAS), managed by WFP, has so far transported 290 responders with two planes and one helicopter. WFP and the logistics cluster facilitated the transport of 400 m^3 of medical cargo. WFP is also providing engineering and logistics support to WHO for the construction of new Ebola Treatment Centres (500 beds in total).

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 wide spread and intense transmission (table 3). In Nigeria, all cases in the transmission chain are linked to a single person who travelled from Liberia to Lagos on 20 July. Among the contacts of this case-patient, one person travelled to Port Harcourt and was the source of further local transmission; this transmission is at present limited to four cases. As a top priority, contact follow-up, supported by the highest authorities, has been implemented in Lagos and Port Harcourt. In Lagos, 347 contacts have now completed 21-day follow-up, and 4 contacts are still being monitored. In Port Harcourt, 164 contacts have now completed 21-day follow-up, and 359 contacts are still being monitored.

In Senegal, one person, who travelled by road from Guinea to Dakar on 20 August, tested positive for Ebola on 27 August. 74 contacts are being followed-up, none of whom have tested positive for EVD so far.

Table 3: Probable, confirmed and suspected cases and deaths in Nigeria and Senegal as at end 14 September 2014

Country	Case definition	Cases			Deaths
		Total	Last 21 days	Last 21 days/total cases (%)	
Nigeria	Confirmed	19	5	26%	7
	Probable	1	0	0%	1
	Suspected	1	1	100%	0
	All	21	6	29%	8
Senegal	Confirmed	1	1	100%	0
	Probable	0	0	0%	0
	Suspected	0	0	0%	0
	All	1	1	100%	0
Total	All	22	7	32%	8

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

A second meeting of the Emergency Committee convened by the Director-General under the International Health Regulations (2005) [IHR (2005)] regarding the 2014 Ebola outbreak in West Africa has begun discussion via email this week. The meeting will review the status of the outbreak as a public health emergency of international concern, and assess the impact of current temporary measures to contain the outbreak and reduce international spread.

WHO and a range of partners are supporting the development of Ebola surveillance, preparedness and response plans in all non-affected African countries. Priority activities include active surveillance for clusters of unexplained death due to fever; provision of information to the general public and travellers; the identification of isolation units; provision of verified access to a WHO-accredited laboratory; and the establishment of a strategy for identifying and monitoring contacts of any suspected case.

The WHO African region has just finalized an operational plan to make non-affected countries ready to respond to a potential EVD outbreak. Countries sharing land borders with areas of active transmission will be given support to reach a minimum standard of readiness for an EVD outbreak.

Work is ongoing to strengthen laboratory capacity in the WHO African region, including a collaboration between all members of the Emerging and Dangerous Pathogen Laboratory Network in the WHO African region that has now mapped the location and capacity of all laboratories able to test for Ebola infection. Logistical systems for sample shipment and the procurement of essential reagents and supplies, including Ebola-positive controls, are now in place at key locations.

WHO is monitoring daily travel, trade, and transport measures adopted in response to Ebola, and together with international partners has established an international travel and transport task force to provide a coordinated international response, and to monitor the situation and provide timely information to the maritime and aviation sectors.

ANNEX 1. EBOLA OUTBREAK IN DEMOCRATIC REPUBLIC OF THE CONGO

As at 15 September 2014, there have been 71 cases (53 confirmed and probable, 18 suspected) of Ebola virus disease (EVD) reported in the Democratic Republic of the Congo (DRC). In total, 40 deaths have been reported. 11% of cases have occurred among health-care workers have been diagnosed with EVD. 95% of 403 listed contacts were seen on 15 September. This outbreak is unrelated to that affecting Guinea, Liberia, Nigeria, Senegal and Sierra Leone.

ANNEX 2. CATEGORIES USED TO CLASSIFY EBOLA CASES

Ebola cases are classified as either 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.