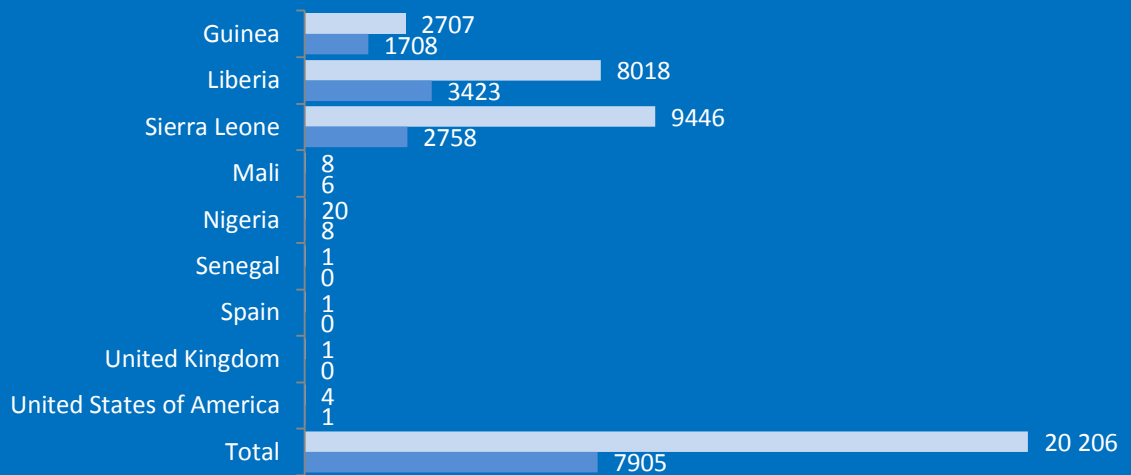




HIGHLIGHTS

- There have been 20 206 reported cases of Ebola virus disease, with 7905 reported deaths.
- Reported case incidence is fluctuating in Guinea and decreasing in Liberia, although Liberia reported more cases in the week ending 28 December than in the previous week.
- There are signs that the increase in incidence has slowed in Sierra Leone. However, the west of the country is still experiencing the most intense transmission of all affected countries.
- The United Kingdom has reported its first confirmed case of Ebola.

CASES/ DEATHS



SUMMARY

A total of 20 206 confirmed, probable, and suspected cases of Ebola virus disease (EVD) have been reported in four affected countries (Guinea, Liberia, Mali and Sierra Leone) and four previously affected countries (Nigeria, Senegal, Spain and the United States of America) in the seven days to 28 December (week 52). There have been 7905 reported deaths (case definitions are provided in Annex 1). On 29 December, the United Kingdom reported its first confirmed EVD case. Reported case incidence has fluctuated between 70 and 160 confirmed cases in Guinea over the past 15 weeks. In Liberia, case incidence has mostly declined in the past six weeks. In Sierra Leone, there are signs that the increase in incidence has slowed, although the country’s west is now experiencing the most intense transmission of all the affected countries. The reported case fatality rate in the three intense-transmission countries among all cases for whom a definitive outcome is known is 71%.

Interventions in the three countries continue to progress in line with the UN Mission for Ebola Emergency Response aim to conduct 100% of burials safely and with dignity, and to isolate and treat 100% of EVD cases by 1 January, 2015. Every country has sufficient capacity to isolate patients, but the uneven geographical distribution of beds and cases means shortfalls persist in some districts. In the past month, the average number of beds per reported patient has grown from 6.6 to 13.9 in Liberia, and 1.4 to 3.6 in Sierra Leone. In Guinea, it has fallen slightly from 2.3 to 1.9 beds per patient, reflecting a small increase in probable and confirmed cases. Each country has sufficient capacity to bury all people known to have died from Ebola, yet the under-reporting of deaths is a persistent challenge. The number of trained safe burial teams has significantly grown in the past month – from 34 to 64 in Guinea, 56 to 89 in Liberia, and 50 to 101 in Sierra Leone. This is close to the capacity needed in each country. All three countries report that more than 90% of registered contacts associated with known cases of EVD are being traced, although the number of contacts traced per EVD case remains low in many districts. Social mobilization is a vital component of an effective response. Engaging communities promotes burial practices that are safe and culturally acceptable, and the isolation and appropriate treatment of patients with symptoms of EVD.

OUTLINE

This situation report on the Ebola Response Roadmap¹ 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. Substantial efforts are ongoing to improve the availability and quality of information about both the epidemiological situation and the implementation of response measures.

Following the Roadmap structure, country reports fall into three categories: (1) those with widespread and intense transmission (Guinea, Liberia and Sierra Leone); (2) those with or that have had an initial case or cases, or with localized transmission (Mali, Nigeria, Senegal, Spain, the United Kingdom and the United States of America); and (3) those countries that neighbour or have strong trade ties with areas of active transmission.

1. COUNTRIES WITH WIDESPREAD AND INTENSE TRANSMISSION

A total of 20 171 confirmed, probable, and suspected cases of EVD and 7890 deaths have been reported up to the end of 28 December, 2014 by the Ministries of Health of Guinea, Liberia and Sierra Leone (table 1). The data are reported through WHO country offices.

Taking into account the number of cases as a proportion of an affected country's population, there have been 25 reported cases and 16 reported deaths per 100 000 population in Guinea, 203 cases and 86 deaths per 100 000 population in Liberia, and 164 cases and 48 deaths per 100 000 population in Sierra Leone.

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

| Country | Case definition | Cumulative cases | Cases in past 21 days | Cumulative deaths |
|--------------|-----------------|------------------|-----------------------|-------------------|
| Guinea | Confirmed | 2397 | 346 | 1433 |
| | Probable | 276 | * | 276 |
| | Suspected | 34 | * | 0 |
| | Total | 2707 | 346 | 1709 |
| Liberia | Confirmed | 3110 | 91 | ‡ |
| | Probable | 1776 | * | ‡ |
| | Suspected | 3132 | * | ‡ |
| | Total | 8018 | 91 | 3423 |
| Sierra Leone | Confirmed | 7354 | 979 | 2392 |
| | Probable | 287 | * | 208 |
| | Suspected | 1805 | * | 158 |
| | Total | 9446 | 979 | 2758 |
| Total | | 20 171 | 1416 | 7890 |

Data are based on official information reported by ministries of health, through WHO country offices. These numbers are subject to change due to ongoing reclassification, retrospective investigation and availability of laboratory results. *Not reported due to the high proportion of probable and suspected cases that are reclassified. ‡ Data not available.

A stratified analysis of cumulative confirmed and probable cases indicates that the number of cases in males and females is about the same. There have been 74 reported cases per 100 000 population in males, compared with 76 per 100 000 population in females (table 2).

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

Compared with children, people aged 15 to 44 are three times more likely to be affected (33 reported cases per 100 000 population, compared with 96 per 100 000 population). People aged 45 and over (122 reported cases per 100 000 population) are almost four times more likely to be affected as children.

Table 2: Cumulative number of confirmed and probable cases by sex and age group in Guinea, Liberia, and Sierra Leone

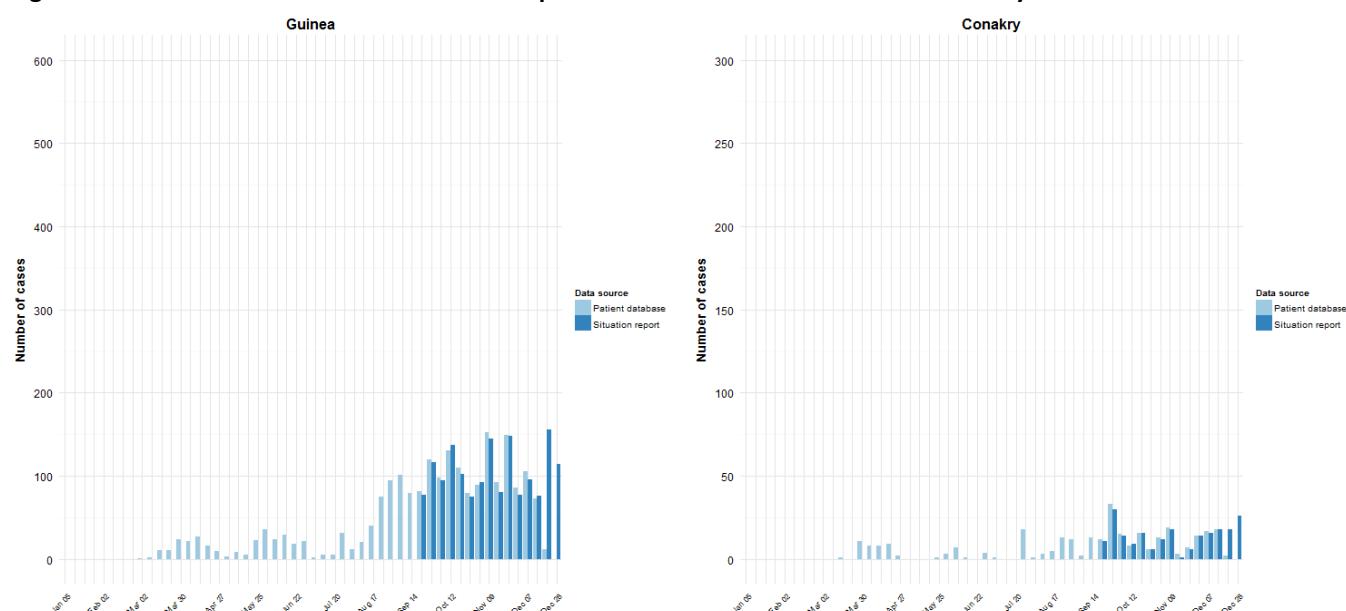
| Country | Cumulative cases | | | | |
|--------------|-------------------------------------|----------------------|---|----------------------|-----------------------|
| | By sex* (per 100 000 population) | | By age group‡ (per 100 000 population) | | |
| | Male | Female | 0-14 years | 15-44 years | 45+ years |
| Guinea | 1156 (21) | 1218 (22) | 371 (8) | 1360 (29) | 622 (40) |
| Liberia | 2538 (128) | 2444 (124) | 831 (48) | 2653 (155) | 1015 (190) |
| Sierra Leone | 3900 (137) | 4161 (143) | 1659 (68) | 4580 (177) | 1808 (245) |
| Total | 7594 (74) | 7823 (76) | 2861 (33) | 8593 (96) | 3445 (122) |

Population figures are based on estimates from the United Nations Department of Economic and Social Affairs.² *Excludes cases for which data on sex are not available. ‡Excludes cases for which data on age are not available.

GUINEA

A total of 114 confirmed cases were reported in Guinea during the week to 28 December, 2014 (figure 1). The national trend has been fluctuating since September, and at present there is no discernible upward or downward trend in the country. Three districts that have previously reported Ebola cases did not report any confirmed or probable cases in week 52.

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



The graphs in figures 1–3 show the number of new confirmed cases reported each week in situation reports from each country (in dark blue; beginning from epidemiological week 38, 15–21 September) and from patient databases (light blue). The patient databases give the best representation of the history of the epidemic. However, data for the most recent weeks are sometimes less complete in the database than in the weekly situation reports. These numbers are subject to change due to ongoing reclassification, retrospective investigation and availability of laboratory results.

² United Nations Department of Economic and Social Affairs: <http://esa.un.org/unpd/wpp/Excel-Data/population.htm>

In the previous week, Guinea reported 156 confirmed cases, the highest weekly case incidence in this outbreak. This was mainly due to a sharp increase in cases in the south-eastern district of Kissidougou. The number of new confirmed cases in Kissidougou declined from 58 to 14 in the past week. Prior to week 51, the district had reported no more than 5 cases each week, emphasizing the need for vigilance in areas previously experiencing little or no transmission.

Transmission persists in the capital of Conakry, which reported 26 confirmed cases in the past week, while the neighbouring district of Coyah reported 12 confirmed cases. To the north of Conakry, Dubreka experienced a sharp rise in confirmed cases, reporting 17 in the past week. The district, which neighbours areas of high transmission such as Coyah and Kindia, has previously reported no more than 6 cases per week. Other districts experiencing persistent transmission include Kindia (16 confirmed cases), which shares a border with Sierra Leone, Lola (7 confirmed cases) and Téliimélé (4 confirmed cases). In other parts of the south-east, EVD transmission appears to be declining in areas with previously high activity in Macenta and Kerouane (4 confirmed cases each) and N'Zérékoré (2 confirmed cases).

Community resistance to response measures and the movement of the population within the country pose major challenges in containing the outbreak in Guinea.

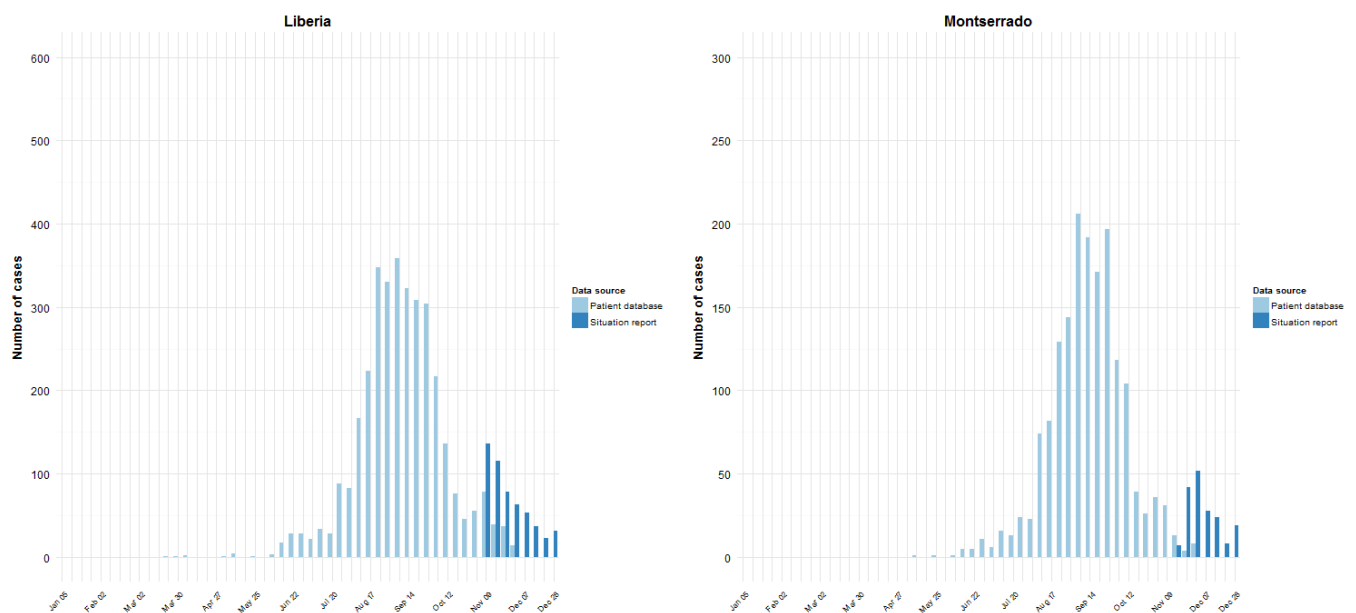
LIBERIA

Case incidence has been declining at a national level since mid-November (figure 2), although there was a slight rise in case incidence in the past week. A total of 31 confirmed cases were reported in 4 districts in the week to 28 December, 2014, compared with 21 cases in 5 districts in the previous week.

The district of Montserrado, which includes the capital Monrovia, continues to account for the most intense transmission in the country, with 19 confirmed and 16 probable cases reported in the past week. In the north of the country, near the Sierra Leone border, Grand Cape Mount is the other county experiencing high EVD activity, with 10 new confirmed cases.

The only other districts to report confirmed cases in the past week are Bong and Sinoe (1 confirmed case each). Eleven districts in Liberia did not report any confirmed cases during the week, indicating that the geographical reach of the outbreak in the country is now contained to a limited number of districts.

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



Systematic data on laboratory confirmed cases have been available since 3 November nationally, and since 16 November for each district.

SIERRA LEONE

EVD transmission remains intense in Sierra Leone, with 337 confirmed cases reported in the week to 28 December, 2014 – more than double the number of cases in Guinea and Liberia combined. While there are signs from the country situation reports that the incidence is no longer increasing (figure 3), disease transmission in all the EVD-affected countries is currently most intense in the western and northern districts of Sierra Leone.

The capital of Freetown accounted for much of the transmission, reporting 149 confirmed cases – its highest case incidence in four weeks. The neighbouring Port Loko remains the other prime area of EVD activity, reporting 69 confirmed cases in the past week. Other western districts with persistent transmission include Bombali and the Western Rural Area (22 confirmed cases each). Kambia also continues to report confirmed cases (5 in the past week).

The Western Area Surge (WAS), an operation by the Government of Sierra Leone, WHO and UN partners, is continuing. The WAS is intensifying efforts to curb the disease in the western parts of the country, particularly Freetown and neighbouring areas, to break chains of transmission, identify cases for early isolation and treatment, and conduct safe burials. Response efforts are supported by social mobilization activities highlighting preventive practices to reduce transmission.

In the country’s east, the district of Kono reported 39 confirmed cases – its highest case incidence in this outbreak. EVD activity has remained high in the district for the past seven weeks. Transmission has also been intense in the neighbouring Tonkolili for the past 15 weeks, and the district reported 13 confirmed cases in the past week.

In the south of the country, the district of Bo reported 6 confirmed cases, after reporting 2 the previous week. These low case numbers follow a 12-week period of sustained high EVD activity.

Four districts in the country’s south and east did not report any new confirmed cases: Bonthe, Kailahun, Kenema and Pujehun. The southern district of Pujehun, near the Liberian border, has not reported a confirmed case in the past 4 weeks.

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

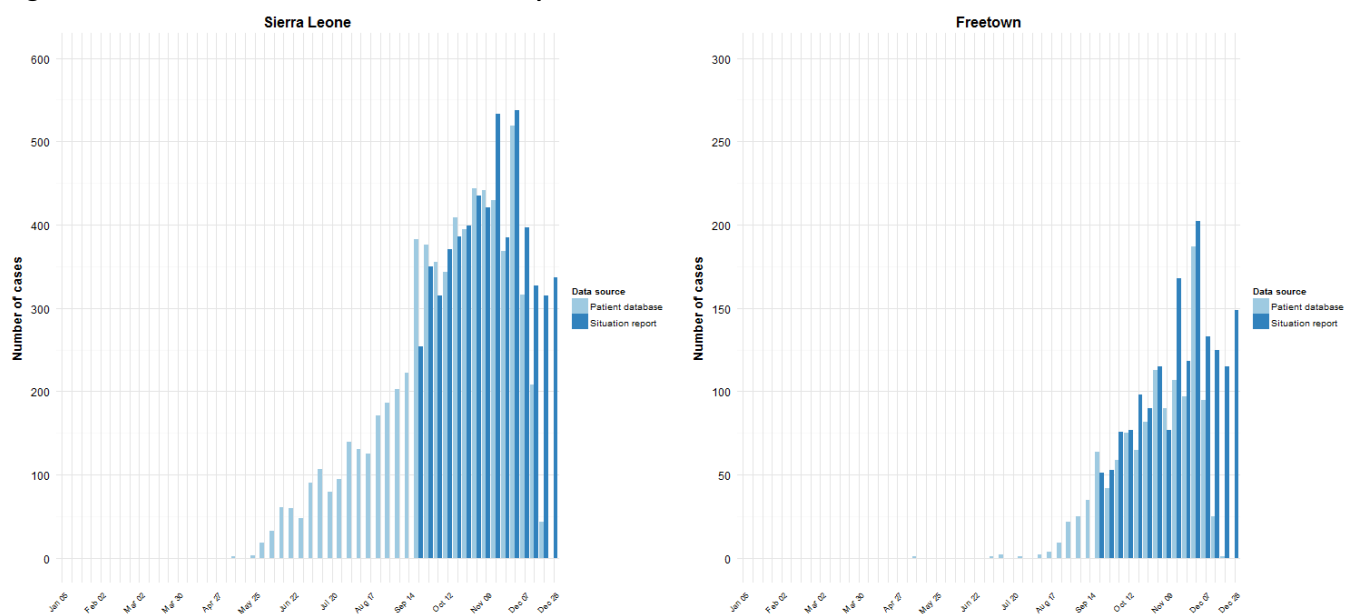
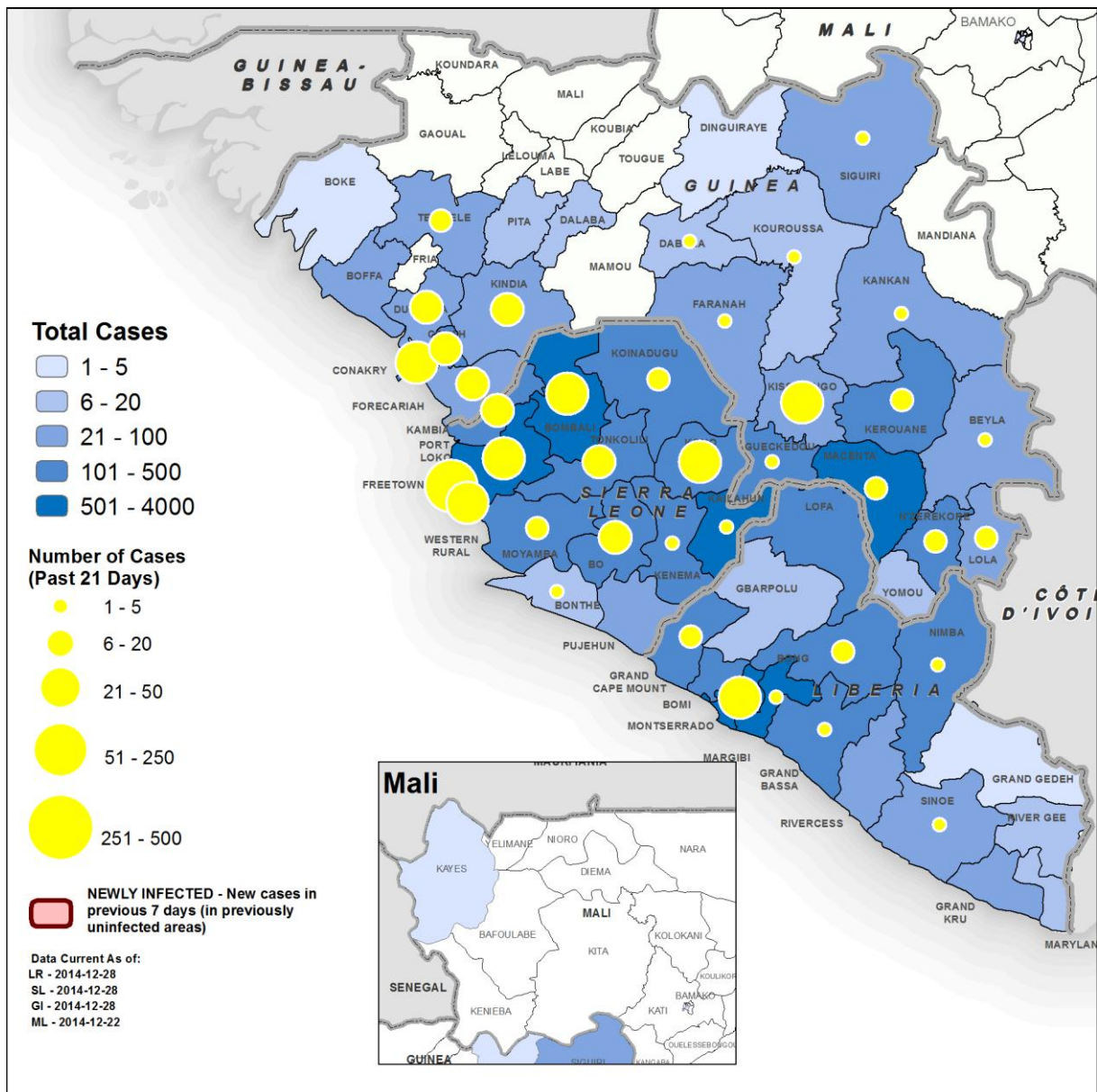


Figure 4: Geographical distribution of new and total confirmed and probable* cases in Guinea, Liberia, Mali and Sierra Leone



Data are based on situation reports provided by countries. 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. *Data for the past 21 days represent confirmed cases in Guinea, Liberia, Mali and Sierra Leone. A probable case in Koubia, Guinea has been retrospectively added to the case count. Koubia will be reported as an affected district in the next situation report.


RESPONSE IN COUNTRIES WITH WIDESPREAD AND INTENSE TRANSMISSION

A comprehensive 90-day plan is being implemented to control and reverse the EVD outbreak in West Africa (see UN Mission for Ebola Emergency Response: Annex 2). Among the plan's key objectives is, by 1 January 2015, to treat and isolate 100% of EVD cases, and conduct 100% of EVD burials safely and with dignity. The various agencies that coordinate each part of the response are shown in Annex 3. Tables 3 to 5 provide information on progress in the domains for which WHO is the lead agency: case management and case finding (laboratory confirmation and contact tracing). Information is also provided on social mobilization and the capacity to conduct safe burials.

Case management

Providing the capacity to treat patients with EVD in facilities that allow them to be isolated from other patients and the community is central to the EVD response. At present, most of this capacity is concentrated in Ebola Treatment Centres (ETCs), large facilities ranging from 20 to 200 beds. Community Care Centres (CCCs) provide an alternative to care in ETCs in areas where there is insufficient ETC capacity, and remote areas that are not yet served by an ETC. Compared with ETCs, CCCs are smaller, with 8 to 30 beds per facility. This means they are easier to set up, which enables response coordinators to provide more rapid, flexible coverage dispersed over a wider geographical area. Community Transit Centres (CTComs) are being set up in Guinea to provide rapid isolation of suspected cases. Confirmed cases are transferred to the nearest treatment centre. CTComs are small structures with 8 to 10 beds, limiting their logistic demands and technical requirements.

Table 3. Key performance indicators for the Ebola response in Guinea

| Indicator | Source dates | Current status | % of planned / target |
|---|--------------------------|--|-----------------------|
| % of districts with laboratory services accessible within 24h | As of 28/12/14 | | 100% |
| % of ETC beds operational | As of 28/12/14 | 36% (250 beds) | 695 beds |
| % of CCC/CTComs beds operational | As of 30/12/14 | 1 operational CTCom (Siguri) with 62 planned | |
| Capacity to isolate patients (beds per reported patient) | 07/11/14 – 28/12/14 | Average: 1.9 beds per reported patient Median: 0 Range: 0 – 60 | |
| Case fatality rate (%) among hospitalized patients | Cumulative (to 28/12/14) | 58% | |
| % of registered contacts to be traced who were reached daily | 22/12/14 – 28/12/14 | 96% | |
| # of newly infected national HCWs | 15/12/14 – 28/12/14 |  (Kerouane – 1) | |
| % of burial teams trained and in place | As of 30/12/14 | 103% (64 teams) | 62 teams |
| % of districts with a list of identified key religious leaders or community groups who promote safe and dignified burials | As of 29/12/14 | 71% | |

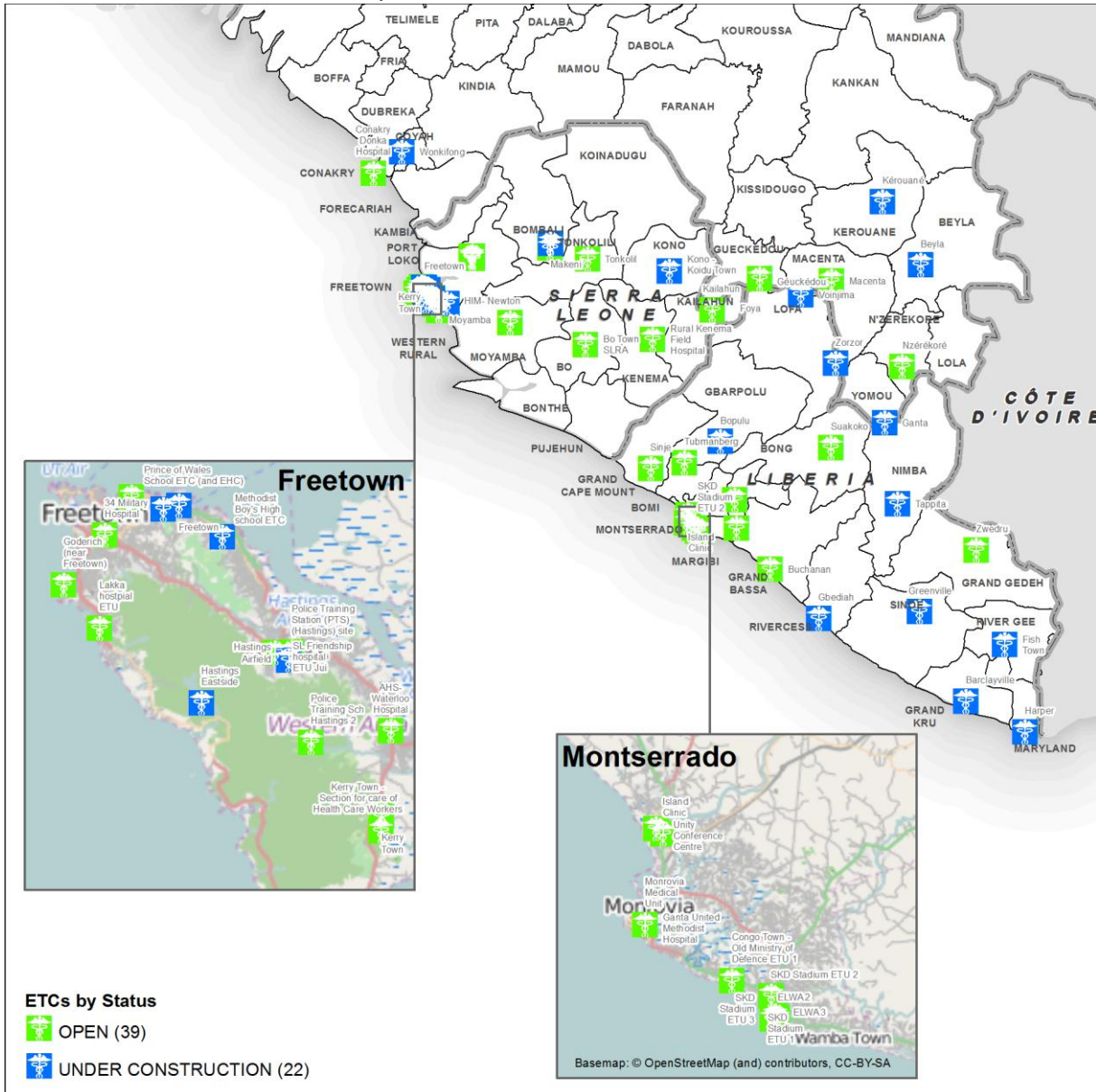
Definitions for each indicator are found in Annex 2.

Capacity to treat and isolate patients is used as a proximate measure of the proportion of EVD cases that are isolated. Using this proximate measure at a national level, all three intense-transmission countries currently have the capacity to isolate all reported cases. In Guinea (table 3) there are 1.9 available beds per reported confirmed and probable EVD case, in Liberia (table 4) there are 13.9 beds for every confirmed and probable case, and in Sierra Leone there are 3.6 beds for every confirmed and probable case (table 5).

However, these figures mask a more complex picture at the district level. Of the three countries with widespread and intense transmission, Guinea is the most restricted in the capacity to isolate patients. This is due to the existence of only 4 ETCs concentrated in Conakry and the country's south-east, and 1 CTCom. Yet Guinea has a vast distribution of cases spread across the country, making it necessary for patients to travel long distances for isolation and treatment. For example, in Kissidougou, which has experienced a large increase in cases in recent weeks, there is no ETC to isolate patients. Patients are likely to be isolated and receive treatment to the south in Guéckédou or Macenta. In Sierra Leone, the districts of Kono and Kambia have reported 21 and 8 cases per week over the past 21 days respectively. Yet neither district has an ETC, CCC or isolation unit. Capacity for treatment and isolation is most evenly distributed in Liberia. However, some districts, such as Sinoe (which reported 3 cases each week on average over the past 21 days) does not have an ETC or CCC.

By contrast, some areas with low case incidence have additional capacity to isolate. For example, Kailahun in Sierra Leone has 72 beds per reported case in the district. The available beds in any given district may be used to isolate and treat patients from other districts. Steps are being taken in each country to address these discrepancies in the geographical distribution of beds, such as opening new ETCs in the Western Rural Area of Sierra Leone and Coyah in Guinea.

Figure 5. Ebola Treatment Centres in Guinea, Liberia and Sierra Leone




Four ETCs in Sierra Leone and one in Liberia are not shown.

The capacity to isolate patients is dependent on the number of available ETC and CCC beds and the number of new EVD cases. In Guinea, bed capacity has not changed in the past week, and the number of beds per reported case (1.9) appears to be lower than the number reported the previous week (2.0). This may be explained by a growth in the number of probable and confirmed cases in the country in recent weeks. In Liberia, the capacity to isolate patients has expanded, due to an increase in the number of beds and a decrease in the number of confirmed and probable cases. In Sierra Leone, a large increase in ETC bed numbers has extended the capacity to isolate patients in the country. Capacity to isolate takes into account only confirmed and probable cases that are isolated in ETCs or CCCs. Cases isolated at home, in hospitals or isolation units are not included.

As of 28 December, 250 EVD-treatment and isolation beds were operational in Guinea, concentrated in 4 ETCs located in the capital, Conakry, and the south-eastern districts of Guéckédou, Macenta and N'Zérékoré. A bed is considered operational when it is staffed and ready to receive patients. This uneven distribution of capacity means that any patient with EVD in the north and centre of the country needs to travel long distances to access treatment. Planned ETCs in the eastern districts of Kérouané, Coyah and Beyla should also help address this distribution problem. While Guinea does not have any CCCs, the country's first CTCCom has been constructed in Kourémalé in the Siguri préfecture. There are plans to construct 62 such facilities in the country.

Table 4. Key performance indicators for the Ebola response in Liberia

| Indicator | Source dates | Current status | % of planned / target |
|---|--------------------------|--|-----------------------|
| % of districts with laboratory services accessible within 24h | As of 28/12/14 | 100% | 100% |
| % of ETC beds operational | As of 28/12/14 | 33% (660 beds) | 1989 beds |
| % of CCC beds operational | As of 28/12/14 | 24% (103 beds) | 428 beds |
| Capacity to isolate patients (beds per reported patient) | 03/11/14 – 28/12/14 | Average: 13.9 beds per reported patient Median: 17.4 Range: 0 – 399 | |
| Case fatality rate (%) among hospitalized patients | Cumulative (to 28/12/14) | 58% | |
| % of registered contacts to be traced who were reached daily | 22/12/14 – 28/12/14 | 90% | |
| # of newly infected national HCWs | 22/12/14 – 28/12/14 |  (Montserrat – 1) | |
| % of burial teams trained and in place | As of 30/12/14 | 89% (89 teams) | 100 teams |
| % of districts with a list of identified key religious leaders or community groups who promote safe and dignified burials | As of 29/12/14 | 0% | |

In Liberia, 660 beds are operational in 16 ETCs. Seven ETCs are located in the capital, Monrovia, 3 are in Margibi, and the districts of Bomi, Bong, Grand Bassa, Grand Gadeh, Grand Cape Mount and Nimba each have 1 ETC. There are currently 6 CCCs open, 1 in each of Grand Cape Mount and River Gee, and 2 in each of Lofa and Margibi. A total of 103 CCC beds are operational in the country.

In Sierra Leone, a total of 896 ETC beds are operational in 19 ETCs, an increase of 63 beds in the past week. There are 2 ETCs in the eastern province, 1 in the southern province, 5 in the northern province and 11 in the western province. There are also 26 CCCs in the country's northern province, with a total of 291 beds. In addition, Sierra Leone has 49 isolation units with 998 operational beds.

Case fatality

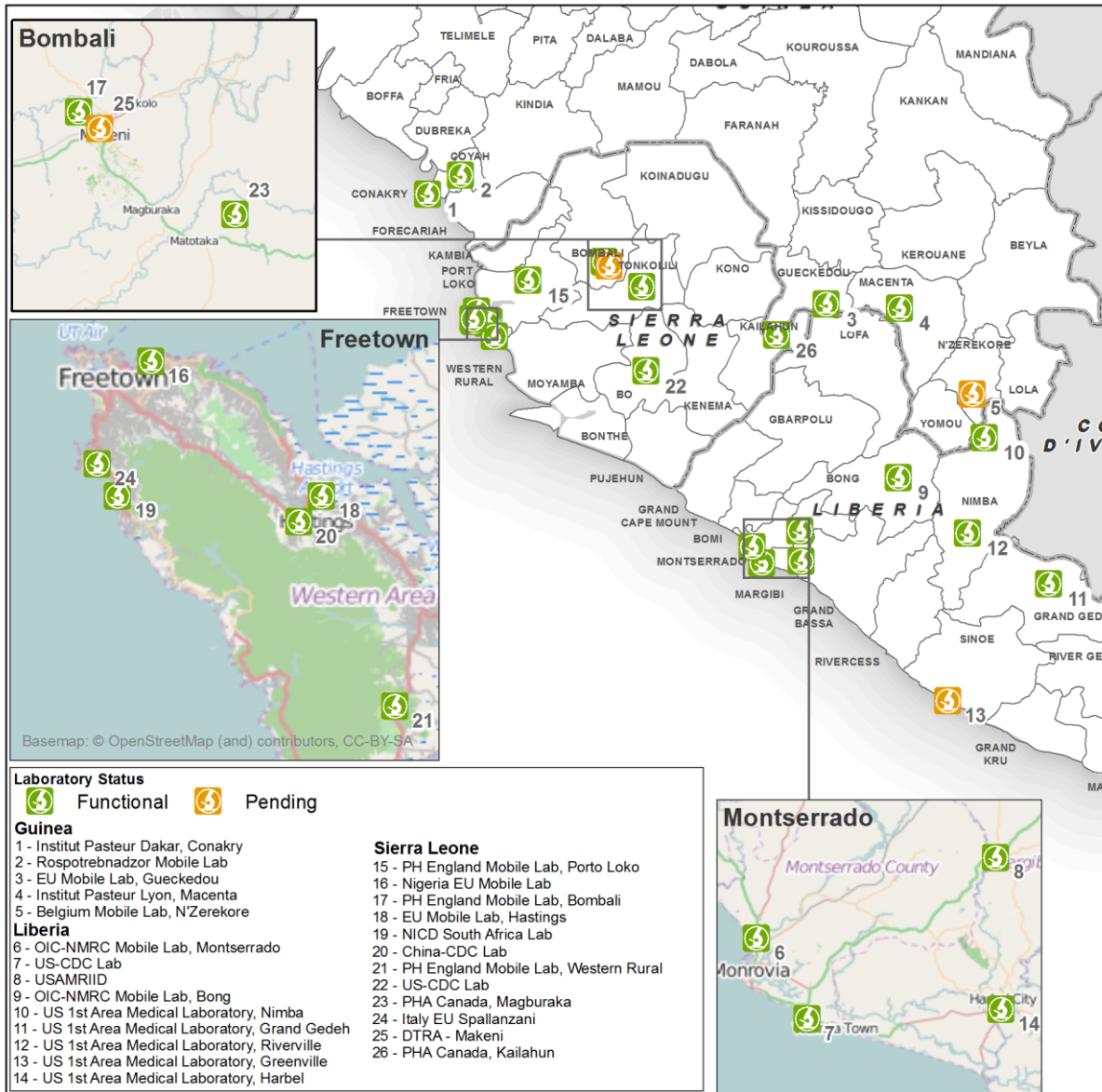
The cumulative case fatality rate in the three intense-transmission countries among all probable and confirmed cases for whom a definitive outcome is recorded is 71%. For those patients recorded as hospitalized, the case fatality rate is 58% in each of Guinea and Liberia, and 60% in Sierra Leone (tables 3–5). There is no evidence of a fall in case fatality among hospitalized patients in any of the three countries over the 52-week period of observation.

Laboratories

Providing capacity for prompt and accurate diagnosis of EVD cases is an integral part of the response to the EVD outbreak. All 53 EVD-affected districts (those that have ever reported a probable or confirmed case) have access to laboratory support (figure 6). Access is defined as having the logistical capacity to transport a sample to a

laboratory by road within 24 hours of sample collection. As of 29 December 2014, 23 laboratories have the capacity to confirm EVD cases: 4 in Guinea, 8 in Liberia and 11 in Sierra Leone. These laboratories currently serve 24 affected districts in Guinea, 15 in Liberia and 11 in Sierra Leone. It is anticipated that in coming weeks, additional laboratories will have the capacity to confirm EVD cases including 1 laboratory in Guinea, 1 in Liberia and 2 in Sierra Leone. The time from sample collection to diagnostic report is now being measured, as a more precise indicator of performance in each country.

Figure 6. Status of laboratories deployed in the affected countries to support the Ebola outbreak response



Contact tracing and case finding

Effective contact tracing ensures that the reported and registered contacts of confirmed EVD cases are visited daily to monitor the onset of symptoms during the 21-day incubation period of the Ebola virus. Contacts presenting symptoms should be promptly isolated, tested for EVD, and if necessary treated, to prevent further disease transmission.

During the week to 28 December 2014, 96% of all registered contacts were visited on a daily basis in Guinea, 90% in Liberia and 94% in Sierra Leone. However, the proportion of contacts reached was lower in many districts (as low as 28% in Kenema in Sierra Leone), while 100% of contacts were reached in some districts. Each district is reported to have at least one contact-tracing team in place. On average, during the past 21 days, 12 contacts

were listed per new confirmed case in Guinea, 23 in Liberia and only 4 in Sierra Leone. Active case-finding teams are being mobilized as a complementary case-detection strategy in several areas.

Table 5. Key performance indicators for the Ebola response in Sierra Leone

| Indicator | Source dates | Current status | % of planned / target |
|---|--------------------------|---|-----------------------|
| % of districts with laboratory services accessible within 24h | As of 28/12/14 | 100% | 100% |
| % of ETC beds operational | As of 28/12/14 | 50% (896 beds) | 1783 beds |
| % of CCC beds operational | As of 28/12/14 | 24% (291 beds) | 1208 beds |
| Capacity to isolate patients (beds per reported patient) | 07/12/14 – 28/12/14 | Average: 3.6 beds per reported patient Median: 4.7 Range: 0 – 72 | |
| Case fatality rate (%) among hospitalized patients | Cumulative (to 28/12/14) | 60% | |
| % of registered contacts to be traced who were reached daily | 22/12/14 – 28/12/14 | 94% | |
| # of newly infected national HCWs | 22/12/14 – 28/12/14 | (0) | |
| % of burial teams trained and in place | As of 30/12/14 | 89% (101 teams) | 114 teams |
| % of districts with a list of identified key religious leaders or community groups who promote safe and dignified burials | As of 29/12/14 | 100% | |

Health-care workers

A total of 678 health-care workers (HCWs) are known to have been infected with EVD up to the end of 28 December 2014, 382 of whom have died (table 6). The total case count includes 2 HCWs in Mali, 11 HCWs infected in Nigeria, 1 HCW infected in Spain while treating an EVD-positive patient, 1 HCW in the UK who became infected in Sierra Leone, and 3 HCWs in the USA (including 1 HCW infected in Guinea, and 2 HCWs infected during the care of a patient in Texas). Two HCW infections were reported in the week to 28 December: 1 in Montserrado in Liberia, and 1 in Keroune in Guinea.

Table 6: Ebola virus disease infections in health-care workers in the three countries with intense transmission

| Country | Cases | Deaths |
|--------------|------------|------------|
| Guinea | 148 | 87 |
| Liberia | 369 | 178 |
| Sierra Leone | 143 | 110 |
| Total | 660 | 375 |

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.

Safe and dignified burials

As of 30 December, there are 254 safe burial teams trained and in place: 64 teams in Guinea, 89 teams in Liberia and 101 teams in Sierra Leone. Guinea has surpassed its target of having 62 trained teams in place, and now has 103% of the planned number of safe burial teams trained and in place. Liberia and Sierra Leone each have 89% of safe burial teams in place. At a national level, all three countries have sufficient capacity to safely bury all reported EVD-related fatal cases. By contrast with the distribution of capacity to isolate and treat patients, the geographical distribution of safe burial teams is far more even across the three intense-transmission countries, though some more remote areas may still be underserved.

Many safe burials are of people who did not die from Ebola. This is because the symptoms of the disease are similar to those of other conditions, and a subsequent laboratory test found that the case was negative for Ebola. EVD deaths continue to be under-reported in this outbreak, which means some burials of people who died from Ebola are unreported.

The International Federation of Red Cross and Red Crescent Societies (IFRC) is currently the only organization involved in safe burials across all three of the intense-transmission countries. The non-governmental organization Global Communities operates in Liberia, Concern Worldwide operates in Liberia and Sierra Leone, and World Vision operates in Sierra Leone. Data on the number of safe burials to have taken place only includes burials done by IFRC and Global Communities.

Community engagement and social mobilization

Social mobilization promotes the adoption of strategies to prevent Ebola infection, helps communities to gain a better understanding of Ebola, and dispels misconceptions about the disease. UNICEF is the lead agency in social mobilization during this Ebola outbreak, supported by partners and WHO.

Engaging communities in Ebola-affected countries is essential to reduce the spread of disease. Fear may prompt people with clinical symptoms to avoid seeking appropriate treatment, leading to the unsafe practice of family members caring for sick people at home. Social mobilization activities can encourage people with Ebola symptoms to seek early medical care and, if confirmed as a case of EVD, to be appropriately isolated. Outreach campaigns inform communities about the risks of Ebola, how the disease can be prevented, and why contact tracing is necessary to prevent further infection.

Community engagement can help reduce the stigma associated with Ebola, so that survivors and orphans can be reunited with, and supported by, their communities. Anthropologists are playing an important role in gaining a more complete understanding of culturally acceptable practices in Ebola-affected communities, supporting and contributing to the effectiveness of response activities.

Fear, limited understanding and misconceptions in the community about Ebola, and limited cultural sensitivity among some response workers may lead to incidents that place the safety of health-care and other workers at risk. Between 17 and 24 December, at least one security incident or other form of refusal to cooperate was reported in 6% of chiefdoms, villages or prefectures in Guinea and 14% in Sierra Leone. No such incidents were reported in Liberia that week.

With burials continuing to be a significant source of infection, conducting burials safely and with dignity is crucial to curbing the spread of disease. Religious leaders and community groups play a major role in a range of community engagement activities, including promoting and implementing safe burial practices according to standard guidelines. As of 24 December, all 14 districts in Sierra Leone have a list of identified key religious leaders or community groups promoting such burial practices. In Guinea, 71% (27 of 38) of districts have such a list. Data are not available for Liberia.

Social mobilization taskforces have been established to develop activities promoting safe and culturally acceptable burial practices, and to engage communities about the need to isolate and appropriately treat those with clinical symptoms of EVD. As of 24 December, 87% (33 of 38) of districts in Guinea are monitoring the status and progress of community sensitization activities, 73% (11 of 15) of districts in Liberia, and 29% (4 of 14) of districts in Sierra Leone.

In Guinea, social mobilization activities in the country include the establishment of Community Watch Committees (CWCs). These comprise community leaders, religious and spiritual leaders and residents who disseminate information and act as liaisons between the population and available services. UNICEF has set up 111 CWCs in Kissidougou, which has recently reported a large number of cases. A total of 107 CWCs are active in the district. In the country, 1257 CWCs have been set up, of which 1254 are operational. UNICEF also prepared 21 000

hygiene kits for distribution. In the capital Conakry, UNICEF has launched a social mobilization campaign to stop the spread of disease. The campaign, in partnership with Guinea's largest civil society network CNOCS, involves 250 CWCs and 120 social mobilization workers. A study is also being conducted to understand the causes of community resistance in Conakry and several remote areas. Findings from the study will inform the Ebola response at a national and district level. The two largest universities in Guinea, Université Gamal Abdel Nasser de Conakry and Université Général Lansana Conté, are conducting studies on community resistance, and will provide training to NGOs and participate in social mobilization campaigns.

In Liberia, in collaboration with UNICEF and PCI media, the first episode of a call-in radio show related to Ebola was broadcast on the United Nations Mission in Liberia radio and the Liberian Broadcasting System radio network. The show aims to keep the community informed about Ebola, provide social support to listeners, and encourage changes in behaviour that can help stop the spread of disease. Additionally, a text message campaign is being used to reach out to people in the counties of Montserrado, Lofa, Bong and Maryland. About 1900 people have registered to receive the text messages, as part of the "U-report" campaign, including messages about preventing Ebola during the Christmas holiday period and elections.

Following two separate outbreaks in Lonfaye town in Margibi county and Yekepa town in Nimba country, UNICEF and partners organized social mobilization activities to engage the populations of the quarantined and neighbouring villages. In town hall meetings and house-to-house visits, messages were spread about the importance of preventive practices, rapid reporting and isolation of sick family members, the identification of people with EVD symptoms, and reducing stigmatization.

Between 17 and 24 December, information about Ebola prevention was provided to more than 13 000 households, as part of door-to-door campaigns in 11 counties across Liberia. Additionally, almost 11 000 women, more than 8000 men and more than 6000 children were reached through more than 180 community meetings and group discussions. A total of 35 of the 52 radio stations with which UNICEF has program cooperation agreements aired Ebola messages between 17 and 24 December. Social mobilization workers continue to face challenges in gaining access to some communities because of heavy rain, bad roads and pockets of resistance.

In Sierra Leone, UNICEF is supporting the health education division of the Ministry of Health and Sanitation to conduct awareness activities in the country's western urban and rural areas, which are currently experiencing intense EVD transmission. More than 5000 social mobilizers are working in these areas. Ebola awareness is being raised on the radio, and by motorbike rallies and volunteers with megaphones driving through communities and playing songs. In addition, a "hotspot busters" project, funded by UNICEF and the Health for All Coalition, has trained 788 ward-level social mobilizers to intensify activities in areas of intense transmission throughout the country. The aim is to engage communities about safe burials and early isolation of symptomatic people.

Budget

As of 29 December, WHO had received US\$215.4 million, with a further \$17.9 million pledged.

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

Six countries (Mali, Nigeria, Senegal, Spain, the United Kingdom and the United States of America) have reported a case or cases imported from a country with widespread and intense transmission.

In the United Kingdom, public health authorities confirmed a case of EVD in Glasgow, Scotland on 29 December, 2014. The case is a health-care worker who returned from volunteering at an Ebola Treatment Centre in Sierra Leone. The patient has been isolated and is receiving treatment in London. Public health authorities are now investigating all possible contacts.

A total of 8 cases, including 6 deaths, have been reported in Mali (table 7). The most recent 7 cases were in the Malian capital Bamako, and not related to the country's first EVD case, who died in Kayes on 24 October, 2014. The last confirmed case tested negative for the second time on 6 December, 2014, and was discharged from

hospital on 11 December, 2014. All identified contacts connected with both the initial case in Kayes and the outbreak in Bamako have completed the 21 day follow-up period.

Table 7: Ebola virus disease cases and deaths in Mali

| Country | Cumulative cases | | | | | Contact tracing | | | |
|-----------------------|------------------|----------|---------|--------|---------------------|--------------------------|--|-----------------------------------|---|
| | Confirmed | Probable | Suspect | Deaths | Health-care workers | Contacts under follow-up | Contacts who have completed 21-day follow-up | Date last patient tested negative | Number of days since last patient tested negative |
| Mali | 7 | 1 | 0 | 6 | 25% | 0 | 433 | 6 December 2014 | 24 |
| United Kingdom | 1 | 0 | 0 | 0 | 100% | Under investigation | | | |

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 evolving EVD outbreak highlights the considerable risk of cases being imported into unaffected countries. With adequate levels of preparation, however, such introductions of the disease can be contained with a rapid and adequate response.

The success of Nigeria and Senegal in halting the transmission of EVD highlights the critical importance of preparedness. Key factors in preventing the spread of EVD in both countries included strong political leadership, early detection and response, public awareness campaigns, and strong support from partner organizations.

WHO's preparedness activities aim to ensure all countries are operationally ready to effectively and safely detect, investigate and report potential EVD cases, and to mount an effective response. WHO provides this support through country visits by preparedness strengthening teams, direct technical assistance to countries, and the provision of technical guidance and tools.

Priority countries in Africa

The initial focus of support by WHO and partners is on highest priority countries – Cote d'Ivoire, Guinea Bissau, Mali and Senegal – followed by high priority countries – Burkina Faso, Benin, Cameroon, Central African Republic, Democratic Republic of the Congo, Ethiopia, Gambia, Ghana, Mauritania, Nigeria, South Sudan, Niger and Togo. The criteria used to prioritize countries include geographical proximity to affected countries, trade and migration patterns, and strength of health systems.

Since 20 October, international preparedness strengthening teams have provided technical support in 14 countries: Benin, Burkina Faso, Cameroon, Central African Republic, Cote d'Ivoire, Ethiopia, Gambia, Ghana, Guinea Bissau, Mali, Mauritania, Niger, Senegal and Togo. Technical working group meetings, field visits, high-level exercises and field simulation exercises have helped to identify key areas for improvement. Each country now has a tailored 90-day plan to strengthen operational readiness for response. A preparedness strengthening team is expected to visit Equatorial Guinea in January.

WHO and partners are deploying staff to those countries that have been visited by preparedness strengthening teams, to assist with the implementation of 90-day plans. Budgeted operational preparedness and response plans in priority countries have been presented to technical and financial partners for support. Coordination structures for Incident Management and Emergency Operations Centres have been set up, or are in the final stages of establishment, in 7 of 14 priority countries (Cameroon, Gambia, Ghana, Guinea-Bissau, Mali, Mauritania and Senegal). In all 14 countries, exercises have been held to review plans, raise awareness and share information,

with the aim of identifying planning gaps. Functional field exercises and drills have been held in 3 priority countries (Benin, Cameroon and Mali). Risk communication training has commenced, targeting all priority countries.

Preparedness in the rest of the world

WHO is expanding preparedness efforts to other countries in Africa and all regions. Fifty-two countries have been visited in Europe, the Americas, South-East Asia, and the Western Pacific and Eastern Mediterranean regions.

Tools and resources for preparedness

Building on existing national and international preparedness efforts, a set of tools has been developed to support any country to identify opportunities for improvements to intensify and accelerate their readiness. The WHO EVD Preparedness Checklist³ identifies 10 key components and tasks for countries preparing their health systems to identify, detect and respond to EVD. The 10 components include: overall coordination, rapid response, public awareness and community engagement, infection prevention and control, case management, safe burials, epidemiological surveillance, contact tracing, laboratory capacity, and capacity building for points of entry. A revised list of technical guidelines and related training materials by preparedness component has been finalized and can be found on the revised WHO preparedness website.⁴

ANNEX 1: CATEGORIES USED TO CLASSIFY EBOLA CASES

EVD cases are classified as suspected, probable, or confirmed.

Ebola virus disease 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 virus disease (EVD) 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' EVD 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 EVD in the laboratory. |

³ <http://www.who.int/csr/resources/publications/ebola/ebola-preparedness-checklist/en/>

⁴ <http://www.who.int/csr/resources/publications/ebola/preparedness/en/>

ANNEX 2: UN MISSION FOR EBOLA EMERGENCY RESPONSE: DEFINITIONS OF KEY PERFORMANCE INDICATORS

The first-ever UN mission for a public health emergency, the UN Mission for Ebola Emergency Response (UNMEER), has been established to address the unprecedented EVD outbreak. WHO is a partner in the mission. Its strategic priorities are to stop the spread of the disease, treat infected patients, ensure essential services, preserve stability, and prevent the spread of EVD to unaffected countries. Response monitoring indicators are calculated using the following numerators and denominators:

| Indicator | Numerator | Numerator source | Denominator | Denominator source |
|--|--|--------------------------------|--|--------------------------------|
| % of districts with laboratory services accessible within 24h | # of EVD-affected districts able to send samples to a laboratory within 24h | National laboratories | # of EVD-affected districts: reported a probable or confirmed EVD case | Clinical investigation records |
| % of ETC beds operational | # of ETC beds operational | WHO | # of ETC beds planned | UNMEER |
| % of CCC beds operational | # of CCC beds operational | UNMEER | # of CCC beds planned | UNMEER |
| Capacity to isolate patients (beds per reported patient) | Number of operational ETC and CCC beds | WHO / UNMEER | Average number of probable and confirmed EVD cases (last 21 days) | Country situation reports |
| Case fatality rate (%) among hospitalized patients | # of deaths among hospitalized patients | Clinical investigation records | # of hospitalized patients with probable or confirmed EVD for whom a definitive survival outcome is reported | Clinical investigation records |
| % of registered contacts to be traced who were reached daily | # of registered contacts to be traced who were reached daily | Country situation reports | # of contacts currently registered | Country situation reports |
| # of newly infected HCWs* | # of newly infected HCWs | Country situation reports | N/A | N/A |
| % of burial teams trained and in place | # of burial teams trained and in place | IFRC/WHO/UNMEER | # of burial teams planned | UNMEER |
| % of districts, counties etc. with list of identified key religious leaders or community groups who promote safe funeral and burial practices according to standard guidelines | # of locations with list of identified religious leaders / influencers who promote safe burial practices | UNICEF | # of districts with list of identified religious leaders or established community groups | UNICEF |

*Used as a proximate measure of the effectiveness of infection prevention and control measures in EVD treatment facilities.

ANNEX 3: COORDINATION OF THE EBOLA RESPONSE

| Response activity | Lead agency |
|--|--|
| Case management | WHO |
| Case finding, lab and contact tracing | WHO |
| Safe and dignified burials | International Federation of Red Cross and Red Crescent Societies |
| Community engagement and social mobilization | UNICEF |
| Crisis management | UNMEER |
| Logistics | UNMEER and World Food Programme |
| Cash payments coordination | United Nations Development Programme |
| Staffing | UNMEER |
| Training | WHO and US Centers for Disease Control and Prevention |
| Information management | UNMEER |