Anticipatory Briefing Note – 23 November 2015

# Liberia
## Re-emergence of Ebola

## Crisis Overview

On 20 November, a new Ebola virus disease case was confirmed in Monrovia, capital of Liberia. The latest case, depending on sources either a 10-year or 15-year-old boy (New York Times, 21/11/2015; Reuters, 20/11/2015), who lives in the eastern Paynesville district of the city, was admitted to a treatment centre in the outskirts of Monrovia on 19 November (WSJ, 20/11/2015; The Independent, 20/11/2015; MOHSW, 20/11/2015). Two direct family members tested positive as well on 20 November (Reuters, 20/11/2015). As of 20 November, at least four other people, of whom two relatives, had been admitted to the Ebola treatment centre (ETC) (New York Times, 21/11/2015). At least 153 contacts have been identified and are being monitored. Food and water were delivered on 21 November to high risk contacts (Reuters, 22/11/2015).

The boy was at school, the Living in Christ International Ministry School, and appears to have shown symptoms before being admitted to hospital, according to health officials. At least seven healthcare workers may have treated him without the protective equipment essential for Ebola cases (New York Times, 21/11/2015). According to media sources, the child's family and school will be put into quarantine (Front Page Africa, 20/11/2015).

These are the first new Ebola cases in Liberia, since the country was declared free from the disease a second time on 3 September 2015 (International SOS, 15/10/2015).

The ACAPS Ebola Project aims to support strategic decision making, programme design and advocacy work surrounding the Ebola outbreak by providing analysis on current priority needs and ongoing issues. Funded by the European Commission's department of Humanitarian Aid and Civil Protection (DG ECHO), it builds on the contextual knowledge and sectoral analysis forged through the ACAPS Ebola Needs Analysis Project (ENAP).

## Key Findings

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| **Anticipated scope and scale** | When the diseases last re-emerged in Liberia, on 29 June 2015, six additional cases, including two deaths, were identified. Depending how quickly the latest outbreak is contained, other humanitarian needs, such as health or protection, could follow. |
| **Priorities for humanitarian intervention** | + **Health:** Infection prevention control (IPC) measures, contact tracing and case management.<br>+ **Social mobilisation**: Sensitisation campaigns. |
| **Potential humanitarian constraints** | + **Fear:** Fear and mistrust of authorities, and of the national and international health system, have facilitated Ebola transmission over previous outbreaks. Fear has proven to be one of the most difficult barriers to overcome during the outbreak.<br>+ **Ebola fatigue:** Communities are becoming less vigilant regarding Ebola.<br>+ **Shift in the Ebola response**: Donor funding for Ebola response is falling, and emergency response organisations are scaling down. |

### Limitations

Only three cases have been reported since 20 November and limited information is available. It is too early to tell if this new outbreak will be rapidly contained. More information is needed to determine the cause, to better control and contain the epidemic.

# Potential Humanitarian Impact

## Risk of Further Ebola Transmission

Reports indicate that the new Ebola patient had had no previous known contact with an Ebola survivor or casualty, nor has recently travelled to Guinea or Sierra Leone, nor attended a burial, raising questions about the origin of transmission (NPR, 20/11/2015; UNICEF, 20/11/2015). However, according to WHO's special representative for the Ebola response, the chance that this case is part of missed transmission chain is unlikely, given the long period of time that has passed since the country's last case (CIDRAP, 20/11/2015). It is possible that this case would not be part of the original outbreak, which appears to be over, but may be due to the persistence of the virus in some survivors who can then pass it along to others. If confirmed, it will reveal "a fundamental shift and change in the epidemiology of the outbreak" (Washington Post, 20/11/2015).

## Health

At least seven healthcare workers may have treated the latest Ebola patient without the necessary protective equipment, putting them at risk (New York Times, 20/11/2015). Following the latest Ebola cases, more people may be afraid to seek medical care, as they will fear catching the virus in the health facilities, resulting in a lack of utilisation of health services. In April 2015, in Liberia, an assessment indicated that fear of Ebola transmission remained a major concern in communities and prevented families from visiting health facilities (ACAPS, 04/2015).

## Protection

Before the latest case, many reported that orphans, survivors, and frontline workers were being blamed for keeping Ebola in the communities and were perceived as a risk of possible further transmission (ACAPS, 11/11/2015). With this new outbreak, it is likely that rumours on the origin of transmission will increase, as well as stigmatisation towards vulnerable groups as a result.

## Education

The latest Ebola patient appears to have attended school while showing symptoms, before going to hospital (New York Times, 21/11/2015), increasing the likelihood of further student cases. Parents may refuse to send their children to schools, for fear of further transmission. In Liberia, an ACAPS assessment in April 2015 indicated that fear of Ebola remained a concern and continued to prevent families from sending their children to school. The fear was being reported countrywide, regardless of whether the county had seen a high number of Ebola cases (ACAPS, 04/2015).

## Vulnerable Groups Affected

+ **Contacts** of people infected by Ebola are most at risk.
+ **Health workers** are at a 30-fold greater risk of Ebola than the general population (MoH, 07/04/2015).
+ **Women** have been slightly more infected over the course of the Ebola outbreak (51% among confirmed cases in the three countries (WHO, 18/11/2015)). They are the ones who take care of sick family members and relatives, and of the body of a person who has died (IFRC 24/06/2014).

# Aggravating Factors

## SPREAD OF THE DISEASE

## Population Density

The West Africa Ebola outbreak is the first to involve major rural and densely populated urban areas. Previously, most cases were limited to rural areas where the disease spreads much slower, due to lower population density (WHO, 08/2015). The latest cases were recorded in the outskirts of Monrovia. According to the last census, in 2008, the population in Monrovia was estimated to be one million people. Montserrado County is the most densely populated in Liberia, at over 1,500 people per square mile, and can be much higher in Monrovia and its environs. 32% of the national population lives in Montserrado County (Government, 06/2008). The virus hit the capital hard in 2014, which was ill-prepared to cope with the rapid increase of cases. In August-September 2014, West Point, West Africa's largest slum located in Monrovia, was affected by the virus. The virus quickly spread in this peninsula where more than 70,000 people are crowded together, with no running water, sanitation or garbage collection (WHO).

## Funeral Practices

Infection by Ebola can occur from touching the bodies of those who have died from the disease. Funeral and burial practices in West Africa are therefore exceptionally high-risk: touching and washing the body is traditional in the affected countries. Data reported by

Guinea's Ministry of Health, in August 2014, indicated that 60% of cases in that country could be linked to traditional burial and funeral practices (WHO, 01/2015).

### Fear

Fear and mistrust of the authorities, and of the national and international health system, has facilitated continued Ebola transmission. Fear has proven to be one of the most difficult barriers to overcome during this outbreak. Previous Ebola deaths have caused panic and further dysfunction within the already weak health system. Fear has driven some families to shun hospitals, perceiving health institutions as a danger rather than offering help (IRIN, 27/08/2014).

### Dry Season

The dry season is ongoing and it is expected to improve access and transportation, as the construction of new roads and infrastructure begins (Front Page Africa Online, 19/11/2015). Improved transportation could make it easier for the virus to spread, as the distribution of food and supplies tends to increase, with cross-border movement representing a particular risk factor. The rainy season in Liberia during limits population movements, with many of the roads covered in mud and impassable (Devex, 15/12/2014)

### Containment Measures

In the past, containment measures have damaged trust between the affected population and emergency responders (ACAPS, 10/2015). At the beginning of the first Ebola outbreak, the Liberian Government imposed quarantine quickly. In August 2014, three counties (Bomi, Lofa and Grand Cape Mount) were under quarantine (AFP, 11/08/2014). At the end of August 2014, curfews were declared over the country and the West Point slum in Monrovia was completely sealed off. This sparked violent clashes between security forces and West Point residents, in which live ammunition was used, dozens were injured, and one killed (AFP, 20/08/2014). During the second outbreak in July 2015, Liberian authorities also quarantined two households (international media, 01/07/2015). Quarantine and containment measures could once again lead to further tensions with the affected communities and create panic. As of 22 November, barriers and soldiers have not been used to enforce quarantines (Reuters, 22/11/2015).

### Ebola Fatigue

A number of key informant interviews, conducted by ACAPS in September-October 2015 in West Africa, revealed that the drawn-out effects of the outbreak have led to a loss of vigilance. Both responders and affected populations are fatigued (ACAPS, 10/2015).With only six new cases in Liberia since last March, community opposition to burial teams has increased (Global communities, 08/09/2015). Washing of bodies is being reported again, raising fears this could lead to new sources of transmission and new cases (ACAPS, 10/2015).

### Shift in the Response

Donor funding for Ebola response is falling, and emergency response organisations are scaling down – some will leave the region around the end of the year. Government and national organisations lack the resources to sustain the necessary level of response and surveillance activities (ACAPS, 10/2015).

## HUMANITARIAN IMPACTS CAUSED BY THE EBOLA OUTBREAK

### Health System

Before the first Ebola outbreak, there were less than 60 Liberian doctors in the country. 375 Liberian health workers have been infected with Ebola, of whom 189 died (The Economist, 14/11/2015; WHO, 22/04/2015). The loss of healthcare workers to Ebola resulted in high maternal mortality: maternal deaths had increased 111% as of May, compared to 2013, with the maternal mortality ratio reaching 2,251 deaths per 100,000 live births (or 1:50) (World Bank, 08/07/2015). As of August 2015, nearly all health facilities in the country were open, but most were operating at reduced levels compared to before the outbreak (WHO, 26/08/2015).

### Orphaned and Otherwise Affected Children

As of November 2015, 8,530 children have been registered as directly affected (quarantined, orphaned, unaccompanied, separated, in treatment, and discharged) by Ebola. More than 7,850 children lost one or both parents or primary caregivers to the disease, according to government data (UNICEF, 11/11/2015).

### Livelihoods

The Ebola crisis has been significantly impacting livelihoods. People have been facing decreased employment opportunities and wage rates below average. Decreased income and purchasing power have been affecting food security. In an August survey, 35% of traders reported less wage opportunities than average for the time of year (FEWSNET, 11/11/2015).

## CRIMINALITY AND INSECURITY

A rise in ritual killing and armed robbery has been reported recently, according to Liberia's President. Local media have reported at least ten murders related to ritual killings since the summer (Reuters, 20/11/2015). Reports of crime have spiked since Liberia was declared Ebola-free for the second time, potentially indicating long-term social issues caused by the loss of breadwinners to Ebola in many households together with stigma, and poverty (The Economist, 14/11/2015). As the UN peacekeeping mission in Liberia, UNMIL, plans to leave the country in September 2016, Liberia needs to increase national security efforts need to maintain peace and security (All Africa, 19/11/2015).

# Ebola Background Information

## Previous Outbreaks

+ **West Africa:** The recent West Africa Ebola outbreak began in Guinea in December 2013 and rapidly spread to neighbouring Sierra Leone and Liberia. As of 20 November 2015, there have been 28,598 suspected, probable, and confirmed Ebola cases. 11,299 deaths have been reported in the three most affected countries: Guinea, Sierra Leone, and Liberia. Sierra Leone was declared Ebola-free early on 7 November 2015. The most recent case, from Guinea, was reported on 29 October 2015 (WHO, 20/11/2015). The outbreak has recorded more cases than all past Ebola epidemics combined (WHO, 08/2015).
+ **Liberia:** Two Ebola outbreaks occurred in Liberia between 2014 and 2015. The first started on 30 March 2014 and transmission was declared over on 9 May 2015. 10,666 suspected, probable and confirmed cases and 4,806 deaths were reported. The disease re-emerged on 29 June 2015 and six additional cases, of whom two deaths, were identified. Liberia was declared Ebola-free once again on 3 September 2015 (WHO, 03/09/2015; WHO, 20/11/2015).

## Transmission and Symptoms

+ Ebola, formerly known as Ebola haemorrhagic fever, is a severe, often fatal illness in humans (WHO, 08/2015).
+ The virus is transmitted to people from wild animals and spreads in the human population through human-to-human transmission, via direct contact with the blood, secretions, or other bodily fluids of infected people, or with surfaces and materials (e.g. bedding, clothing) contaminated with these fluids (WHO, 08/2015).
+ Ebola is a severe acute viral illness often characterised by the sudden onset of fever, intense weakness, muscle pain, headache and sore throat, followed by vomiting, diarrhoea, rash, impaired kidney and liver function, and in some cases, both internal and external bleeding (WHO 04/2014).
+ The virus has been found in semen 199 days after the onset of symptoms, 40 days in sweat, 31 days in urine, and 98 days in ocular fluids. From previous Ebola outbreaks in Africa, the virus had also been found 33 days after the onset of symptoms in vaginal secretion, 22–29 days in rectum swabs, and 15 days in breast milk. The mean and maximum duration of persistence of either live virus or generic fragments in these body fluids is largely unknown. However, while results can show whether the virus is still present in body fluids, they cannot imply that the virus is infectious until viral isolation can be performed on the samples (MoH/WHO/CDC, 13/10/2015; Sprecher, 14/10/2015).

## Treatment and Vaccines

+ The average Ebola case fatality rate is around 50%. Case fatality rates have varied from 25% to 90% in past outbreaks (WHO, 08/2015).
+ Early supportive care with rehydration, and symptomatic treatment improves survival (WHO, 08/2015). However, at this time, there is no vaccine for Ebola licensed for use in humans. Clinical trials for at least 15 candidate vaccines are in various phases, with four main candidates in advanced stages of human testing (WHO).
+ Convalescent whole blood donated by Ebola-recovered patients is currently being administered in some Ebola treatment centres in Sierra Leone and trials are under way in Guinea (WHO, 06/10/2015)

# Key Characteristics of Population and Area

**Demographic profile:** Estimates for July 2015 indicate that around 4,195,600 people live in Liberia (CIA Factbook, 07/2015). As of 2014, 49.9% of the population were female, and 50.7% of the people were living in rural areas (World Bank, Female Population, 2014; Rural Population, 2014). 43.49% of the population is under the age of 14 (HEWS 25/09/2012).

**Food security:** Around 200,000 people were reported to be severely food insecure as of June 2015. 640,000 were moderately food insecure (LFSA, 30/06/2015; All Africa, 20/10/2015).

**Nutrition:** Severe and moderate chronic malnutrition in 2012 were reported as high as 41.8%, while moderate and severe acute malnutrition was 2.7% (UNICEF, 2012). 21,800

children were estimated to be suffering from severe acute malnutrition as of May 2015 (OCHA, 31/05/2015).

**Health:** Child mortality rate in 2012 was 75 per 1,000 live births. Infant mortality rate in 2012 was 56 per 1,000 live births, while estimates for 2015 indicate that it has reached 67.5 (UNICEF, 2012; CIA Factbook, 2015).

**WASH:** As of 2015, 75.6% of the population has access to an improved water source, but only 16.9% has access to improved sanitation facilities (World Bank, Access to Improved Water Source, 2015; Access to Improved Sanitation Facilities, 2015).

**Lighting and cooking**: As of May 2015, over 95% of the population is reported to use biomass (charcoal or firewood) for cooking and heating (Jones, 05/2015).

**Literacy**: As of 2015, the literacy rate of the people over 15 years of age is 47.7%, while youth's literacy rate (15–24 years old) is 60.8% (UNESCO, 2015).

## Response Capacity

### Local and National Response Capacity

The Montserrado County Health Team, under the guidance of the Ministry of Health and Social Welfare, is working with partners to isolate the patient and the high risk contacts, and to perform adequate contact tracing (MOHSW, 20/11/2015). The governmental entities in charge of the outbreak response operate through the Incidence Management System and the Ebola Operation Centre (OCHA, 18/11/2015).

Liberia Red Cross society has been involved in the response since the beginning of the outbreak (IFRC, 2015).

### International Response Capacity

Medecins Sans Frontieres (MSF), which was one of the first organizations to respond to the outbreak, was still in Liberia as of 1 November 2015 (MSF, 02/11/2015; Williams, 08/09/2015). Even though the organisation decided to withdraw from several areas of the country, as soon as the outbreak was safely contained, it always stated its availability to intervene in case of new request of support by the Liberia government (MSF, 11/12/2014).

The Ebola emergency response system is led by WHO since 1 August 2015 (Global Ebola Response Coalition, 2015). The Centre for Disease Control and prevention (CDC) of the United States of America, has been present in Liberia since October 2014, to provide support in responding to the disease, in monitoring the contacts, and in other activities aiming to contain the outbreak (CIDRAP, 14/10/2015).

UNICEF, UNDP, WFP, IOM, GOAL, ACF and many other and NGOs are present in Liberia, mostly providing support in health, WASH, and protection (USAID & CDC, 06/11/2015; OCHA, 18/11/2015; UNICEF 11/11/2015; WFP, 30/09/2015; UNDP, 17/11/2015).

### Population Coping Mechanisms

Liberians were already poor, and the previous Ebola outbreaks exacerbated existing poverty and social issues. Reduced food security has caused many households to depend on food aid, as no coping mechanisms are available to most of the population (All Africa, 19/11/2015; ECHO, 13/01/2015).

## Information Gaps and Needs

**Origin of transmission**: More information is needed to determine the cause of the latest outbreak, to better control and contain the epidemic.

**Contacts**: Information on the past movements of the medium and high-risk contacts is needed to ensure efficient and quick contact-tracing.

## Lessons Learned

### SECOND EBOLA OUTBREAK IN LIBERIA (CDC, 03/09/2015)

Several factors were crucial in the rapid containment of the last outbreak in Liberia:

+ Maintaining **command, control, and partner coordination** through the existing Ministry of Health Incident Management System and a temporary field-based emergency operations centre near the place where the new case was reported.
+ **Quickly executing the rapid response plans** developed to prepare against the possible re-emergence of Ebola into Liberia.
+ Applying experience in **contact tracing and active case finding** developed over the course of the previous outbreak, such as early identification and triage of cases, and effective contact monitoring.

+ Implementing **healthcare worker surveillance and infection prevention and control** strategies to prevent nosocomial transmission.
+ Increasing Ebola **laboratory testing capacity** for rapid testing and confirmation of cases.
+ Building on ongoing **community engagement** to build trust and cooperation within the affected community.

## WEST AFRICA EBOLA OUTBREAK

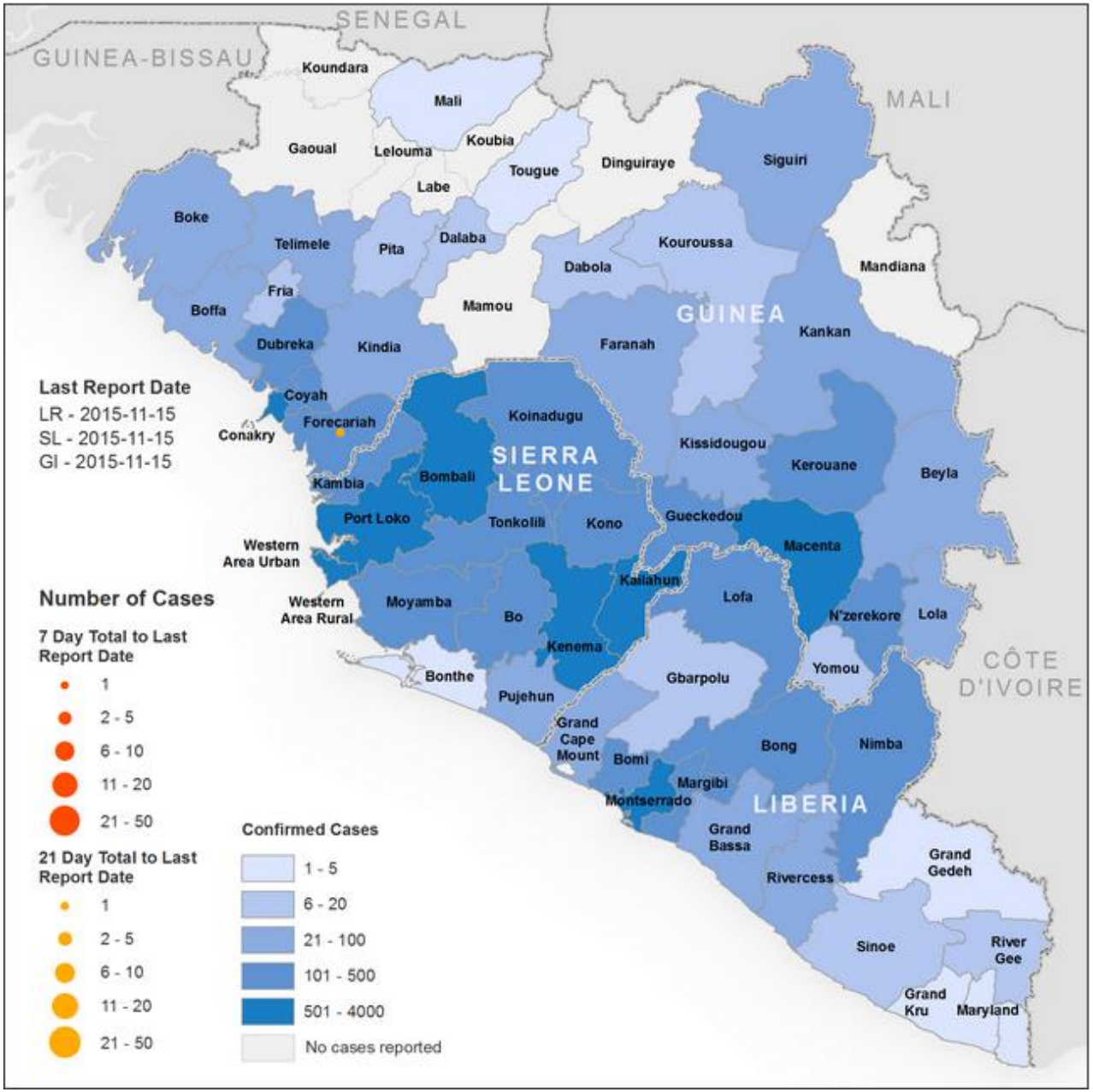
Several lessons learned around the response have been gathered throughout the Ebola outbreak, notably:

+ Define a clear **chain-of-command** and organisational structure, ensure effective **resource management**, advanced planning and effective **intersectoral coordination** (CDC, 17/10/2014; UNICEF 24/09/2014). **Cross-border coordination** is essential, especially given the high population mobility in the region (WHO, 01/2015).
+ **Decentralise** the National Ebola Emergency Operations Centre, while simultaneously building the state's capacity to manage the outbreak (UNICEF 24/09/2014).
+ Increase **surveillance and response capacity** to track ongoing transmission and re-emergence of the disease, especially safe burials and laboratory support (CIDRAP, 03/09/2015; CDC, 11/09/2015).
+ **Collect, collate and rapidly share information** on cases, laboratory results and contacts is needed (WHO, 01/2015).
+ Implement active **case ascertainment, investigation**, and daily interaction with all known contacts (CDC, 11/09/2015).
+ Ensuring that contacts of patients with Ebola are **monitored for a full 21 days** after their last exposure is among the most important aspects of effective Ebola control. Over time, in both Guinea and Sierra Leone, emphasis has shifted from efforts to enforce cooperation toward efforts to support identified contacts to ensure that they are able and willing to cooperate with monitoring (CDC, 11/09/2015).
+ **Ensure community ownership** by engaging with the community through social mobilisation to successfully manage the outbreak and its impacts (WHO, 08/2015; CDC, 11/09/2015). In Sierra Leone, it is viewed as a critical success factor in the National Ebola Response Centre's 'Getting to a resilient zero' strategy, and considered central to all aspects of the response (NERC, 24/07/2015). **Faith leaders** have played an important role in promoting messages of acceptance and changing community perceptions, while taking into account local traditions. They have worked with communities to communicate accurate messages about Ebola (Cafod and al., 01/07/2015).
+ **Centralise media messaging** within a single official source to minimise rumours (UNICEF 24/09/2014). Messaging and familiarisation with new practices as the crisis evolved have played a central role in changing populations' attitudes towards frontline workers, safe burials, protective equipment and other factors that were initially marked by fear and scepticism (IRC, 2015; NERC, 24/07/2015).
+ **Ensure the payment of incentives for health workers** to encourage them to remain in Ebola-affected areas (UNICEF 24/09/2014).

### Quarantine

+ **Demystifying quarantine** is a key to a successfully conveyed message. Local communities had previously considered quarantine as a death sentence. Quarantine needs to be described as liveable, and even desirable, as it is a necessity to make patients' family members and the rest of the society safe and as it is a situation where basic necessities like food, water and medicine are provided for free (Ebola Anthropology platform, 10/01/2015)
+ **Self-imposed** quarantine has proved less problematic. Coercion is counterproductive (ACAPS, 19/03/2015).
+ The **communities' understanding** of the benefits of quarantine and its role in stopping the outbreak is essential (ACAPS, 19/03/2015).
+ The **timely and reliable delivery of resources** (e.g. food/water) and expertise (e.g. contact tracing/safe and dignified burials) is essential to ensure cooperation and deter quarantine violation (ACAPS, 19/03/2015).

## Geographical distribution of new and total confirmed cases in Guinea, Liberia and Sierra Leone as of 18 November




**Source:** WHO, 15/11/2015