EBOLA OUTBREAK IN SIERRA LEONE
DATE: 26 June 2014

	Insignificant	Minor	Moderate	Important	Major
Expected impact				X	

	Not required	Low	Moderate	Important	Urgent
Need for international assistance				X	

Crisis overview

- An Ebola Virus Disease (EVD) outbreak, which started in Guinea in early 2014, has now spread to Liberia and Sierra Leone. As of 23 June, the total cumulative number of cases reported in the three countries was **635 out of which 399 died,** a **Case Fatality Rate (CFR) of 62.8%**. (WHO, 25/06/2014). Ebola patients have been identified in more than 60 separate locations across the three countries, complicating efforts to treat patients and curb the outbreak (MSF, 25/06/2014).

- Sierra Leone has only been affected by the outbreak in the past month, and as of 24 June the total number of cases was of **163, with 46 confirmed deaths** according to the Ministry of Health (MoHS SL 24/06/2014).

- The epidemic hotspot in Sierra Leone is Kailahun district, and the Government of Sierra Leone declared a State of Emergency in this district on 12 June. Sierra Leone closed its borders with Guinea and Liberia on 11 June.

Key findings

Anticipated scope and scale of the event

The outbreak of the Ebola Virus Disease continues to produce new cases, particularly in Sierra Leone, where effective containment measures have been slow to organise and populations have been resistant to the communication messages of the local authorities. There is a concern about the on-going cross-border transmission into neighbouring countries as well as the potential for further international spread. MSF emphasises the need to recognize this as a major emergency to avoid it spreading to other countries.

Priorities for humanitarian interventions in the coming weeks

Immediate needs include qualified medical staff, the organisation of training on how to treat Ebola, and increasing number of contact tracing and awareness-raising activities among the population. There is need for socioeconomic and psychological support to cases, their families and communities. There is social disruption and stigma associated with the illness. Most of the people affected by Ebola in Sierra Leone are women, as they are the ones who take care of sick family members, deceased and relatives.

Humanitarian constraints

The upcoming rainy season is expected to hamper humanitarian access.

Need for humanitarian assistance

There is an urgent need to intensify response efforts, and to promote cross-border collaboration and information sharing (WHO 25/06/2014). Bringing the epidemic under control will require a massive deployment of resources by governments in West Africa and aid organisations (MSF 24/06/2014).

Key Information about the current outbreak

Current situation in Guinea, Sierra Leone and Liberia

Brief Background: This is the first Ebola virus outbreak registered in the region of West Africa, expected to have started in Guinea in either late 2013 or early 2014. Epidemiological research identified a two-year old girl from Guéckédou as the first suspected case, who died in early December 2013 (ECDC 09/06/2014). The virus was first detected in Guéckédou in the south-eastern region of Guinea in February 2014 (ECDC 09/06/2014), and was publically announced by the Guinean Government on 22 March (EC 11/04/2014). Up until the end of May only Guinea and Liberia had been affected (ECHO 24/06/2014). During the first week of April, it looked as though the control measures would bring the situation to a halt, however, during the last week of May, there was a surge in the number of new cases as the outbreak spread to previously unaffected areas of Sierra Leone and Liberia (ECDC 09/06/2014).

Current Caseload: As of 23 June 2014, the total cumulative number of cases reported was 635 out of which 399 died, which means a case fatality rate (CFR) of 62.8%. This makes the on-going Ebola outbreak the largest in terms of the number of cases and deaths as well as geographical spread (WHO 25/06/2014). In Sierra Leone, as of 24 June, the cumulative number of cases tested is 312, with 163 laboratory cases of Ebola and 46 confirmed deaths (MoHS SL 24/06/2014). Reporting of fatalities has been modified since 25/06 lowering the number of reported casualties.

Overview of the caseload and deaths per country and area as of 20 June (WHO)

Country/Area		Total # cases	Total # deaths
GUINEA		**390**	**270**
	Conakry	65	33
	Gueckedou	226	177
	Macenta	41	28
	Dabola	4	4
	Kissidougou	6	5
	Dinguiraye	1	1
	Telimele	25	9
	Boffa	21	12
	Kouroussa	1	1
SIERRA LEONE		**158**	**34**
	Kailahun	135	32
	Kambia	1	0
	Port Loko	2	0
	Kenema	19	2
	Western	1	0
LIBERIA		**51**	**34**
	Lofa	36	21
	Montserrado	11	11
	Margibi	2	2
	Nimba	2	0

Source : WHO 23/06/2014

New Cases between 18 and 20 June: In Guinea no new cases were reported during this time frame, but three deaths were reported, of which two were from Gueckedou and one from Telimele. No new cases were reported in Sierra Leone during the time period, but four new deaths were reported, of which four were from Kailahun and one from Kenema. In Liberia, ten new cases and eight new deaths were reported from Lofa (eight cases and six deaths) and Montserrado (two cases and two deaths).

Anticipated Scope and Scale

The outbreak of the Ebola Virus Disease continues producing new cases, particularly in Sierra Leone, where effective containment measures have been slow to organise and populations have been resistant to the communication messages of the local Ministry of Health (MoH) (ECHO 18/06/2014).

According to WHO, this is no longer a country specific outbreak but a sub-regional crisis that requires firm action by Governments and partners. There is a concern about the on-going cross-border transmission into neighbouring countries as well as the potential for further international spread. There is an urgent need to intensify response efforts; to promote cross-border collaboration and information sharing of suspected cases and contacts in line with WHO guidelines and to mobilise all sectors of the community to ensure unhindered access to affected areas. This is the only way that the outbreak will be effectively addressed (WHO 25/06/2014).

On 11 June, Sierra Leone closed its borders with Guinea and Liberia, and also closed schools, cinemas and nightclubs along border regions in a bid to halt the spread of the Ebola virus (OCHA 16/06/2014).

According to MSF there is a need to recognize this as a major emergency, otherwise it will continue to spread to other countries (Washington Post 20/06/2014).

Humanitarian constraints

The impending rainy season is likely to hamper access to the remote epidemic hot spot of Kailahun (ECHO 24/06/2014).

Crisis Impact

Immediate needs

Immediate needs include qualified medical staff, the organisation of training on how to treat Ebola, and contact tracing and awareness-raising activities among the population need to be stepped up (MSF 23/06/2014).

Factors affecting efforts to control outbreak

Part of the population does not believe Ebola exists as a contagious illness caused by a virus, which results in patients not coming to treatment centres. People have more confidence in traditional practitioners than the health system, which means health officials have trouble stopping the spread of the virus. The highest risk of infection occurs when a person dies. At funerals, people prepare the corpse and mourners also touch the body, which increases the risk of contamination (CBC 23/06/2014).

There is a lack of understanding about how the disease spreads has made people continue to attend funerals where infection-control measures are not implemented (MSF 23/06/2014).

There is a lot of fear, denial and stigma attached to the highly contagious disease, as it is the first time it has appeared in Sierra Leone. Some communities are not letting authorities or humanitarian actors enter, while many of those who may have come into contact with the virus and need to be watched, disappear and are, therefore unable to be traced. For those who do accept that Ebola is a real disease, they believe it is fatal and as a result do not see the reason for seeking healthcare when they have symptoms (IFRC 24/06/2014).

Affected vulnerable groups

According to IFRC, most of the people affected by Ebola in Sierra Leone are women, as they are the ones who take care of sick family members and relatives. They are also the ones who care for the body of a person who has died, which is highly infectious if not properly handled (IFRC 24/06/2014).

Background Information

What is the Ebola Virus Disease (EVD)

Background and symptoms: Ebola virus disease (EVD), formerly known as Ebola haemorrhagic fever, is a severe, often fatal illness in humans. EVD outbreaks can have a case fatality rate of up to 90%. Ebola first appeared in 1976 in two simultaneous outbreaks, in Nzara, Sudan, and in Yambuku, Democratic Republic of Congo. The latter is a village situated near the Ebola River, from which the disease takes its name. EVD is a severe acute viral illness often characterized by the sudden onset of fever, intense weakness, muscle pain, headache and sore throat, followed by vomiting, diarrhea, rash, impaired kidney and liver function, and in some cases, both internal and external bleeding (WHO 04/2014).

Transmission: Ebola is introduced into the human population through close contact with the blood, secretions, organs or other bodily fluids of infected animals. Ebola then spreads in the community through human-to-human transmission, with infection resulting from direct contact (through broken skin or mucous membranes) with the blood, secretions, organs or other bodily fluids of infected people, and indirect contact with environments contaminated with such fluids. Burial ceremonies in which mourners have direct contact with the body of the deceased person can also play a role in the transmission of Ebola. Men who have recovered from the disease can still transmit the virus through their semen for up to 7 weeks after recovery from illness. Health-care workers have frequently been infected while treating patients with suspected or confirmed EVD. This has occurred through close contact with patients when infection control precautions are not strictly practiced (WHO 04/2014). An outbreak will be considered over in a country after 42 days (two incubation periods) have passed without a confirmed case (WHO 24/06/2014).

No licensed vaccine for EVD available: Several vaccines are being tested, but none are available for clinical use. Severely ill patients require intensive supportive care. Patients are frequently dehydrated and require oral rehydration with solutions containing electrolytes or intravenous fluids. No specific treatment is available. New drug therapies are being evaluated (WHO 04/2014).

Potential Aggravating Factors

Upcoming rainy season

The rainy season in Sierra Leone lasts from June through September (HEWS 25/09/2012), with the yearly highest average rainfall recorded in July, August and September (WB 2014). High rainfall is expected over Sierra Leone, Liberia, and coastal Côte d'Ivoire during the last week of June, increasing the likelihood for flooding over many local areas (FEWSNET 20/06/2014).

Response Capacity

Local and National Response Capacity

- On June 12, the Government of Sierra Leone declared a State of Emergency in Kailahun district (VOA 12/06/2014).
- The Government has introduced measures to contain the outbreak in Kailahun district, including closure of crowd gathering sites (theatres, schools, markets). Furthermore, the MoH is in the process of establishing surveillance systems (e.g., tracing, burials, etc.) (ECHO 18/06/2014). The Government and MSF is also constructing a 50-bed Ebola treatment centre in Kailahun, due to open last week of June. Small transit care units have already been set up in Koidu and Daru, with a third to open soon in Buedu. MSF has also provided the Ministry of Health with supplies in order to support the construction of further treatment centres (MSF 23/06/2014).

International Response Capacity

- In an effort to interrupt further spread of this virus in the shortest possible time, WHO is convening a special meeting of Ministers of Health of 11 countries and partners involved in the Ebola outbreak response in Accra, Ghana from 2-3 July 2014 to discuss the best way of tackling the crisis collectively, as well as develop a comprehensive inter country operational response plan (WHO 25/06/2014).
- The European Commission is allocating an additional €500,000 to enhance interventions aimed at curbing the worsening Ebola epidemic in Guinea, Liberia and Sierra Leone. This brings the total of Commission aid to €1.9 million (ECHO 24/06/2014).
- Governments, WHO, Red Cross, UN agencies and various NGOs and Donors are active in the crisis response.
- Ministries of Health and MSF are currently the only organisations treating people affected by the virus, but MSF has reached its capacity and can no longer deploy to new outbreak sites due to a lack of resources (equipment and personnel). Ebola patients have been identified in more than 60 separate locations across the three countries, complicating efforts to treat patients and curb the outbreak (MSF 23/06/2014).

Lessons Learned

Health workers treating patients with suspected or confirmed illness are at higher risk of infection than other groups. Health care providers at all levels of the health system – hospitals, clinics and health posts – should be briefed on the nature of the disease and how it is transmitted, and strictly follow recommended infection control precautions (WHO 15/04/2014).

The following main lessons learned were identified based on an Ebola outbreak in Uganda in 2007 (Journal of Infection Disease 3/11/2011):

- Education to rural medical personnel on the signs and symptoms of filovirus infections (*Ebolavirus* and *Marburgvirus)*, such that early chains of transmission can be identified by local populations can be seen as a way to prevent the spread of Ebola.
- Implementation of basic infection control procedures (patient isolation, disinfection of contaminated materials, and contact precautions) in rural hospitals to contain cases.
- Improve the capacity for local medical staff and public health personnel to identify, collect standardized information, and report suspect filovirus infections to the ministry of health or national public health authorities.
- Pre-establish an effective network to collect and transport diagnostic specimens, to rapidly deliver diagnostic specimens to the national (or other appropriate) laboratories.
- Improve the capacity to do filovirus diagnostic testing in-country to avoid the temporal lag associated with shipping diagnostic specimens internationally.

According to the CDC, there are several ways to control EVD outbreaks including (: Keys to controlling EVD outbreaks include (CDC 24/06/2014):

- Active case identification and isolation of patients from the community to prevent continued virus spread.
- Identifying contacts of ill or deceased persons and tracking the contacts daily for the entire incubation period of 21 days.
- Investigation of retrospective and current cases to document all historic and ongoing chains of virus transmission.
- Identifying deaths in the community and using safe burial practices.
- Daily reporting of cases.

Key Indicators	Sierra Leone	Guinea	Liberia
Total population	5,979 million (WB 2012).	11.45 million (WB 2012)	4.19 million (WB 2012)
Outbreak	26 May 2014	February 2014	29 March 2014
Case Fatality Rate (CFR)	158/34 (21.52%)	390/270 (69.23%)	51/34 (66.67%)
Age distribution of population	43% of the population is under the age of 14 (HEWS 25/09/2012).	42.9% under the age of 14 (HEWS, 25/09/2012)	43.49% under the age of 14 (HEWS, 25/09/2012)
Main WASH figures	In 2011, 57.5% had access to improved drinking water sources and 12.9% had access to improved sanitation facilities (UNICEF 2012).	In 2011, 73.6% had access to improved drinking water sources and 18.5% had access to improved sanitation facilities (UNICEF 2012).	In 2011, 74.4% had access to improved drinking water sources and 18.2% had access to improved sanitation facilities (UNICEF 2012).
Main health figures	In 2012, the infant mortality rate was 117 per 1,000 births and the under-5 mortality rate was 182 per 1,000 births (UNICEF 2012). In 2013, the maternal mortality rate was 1,100 per 100,000 live births (WB 2013).	In 2012, the infant mortality rate was 65 per 1,000 births and the under-5 mortality rate was 101 per 1,000 births. The maternal mortality rate was 980 per 100,000 live births (UNICEF 2012).	In 2012, the infant mortality rate was 56 per 1,000 births and the under 5 mortality rate was 75 per 1,000 births The maternal mortality rate was 990 per 100,000 live births (UNICEF 2012).
Food security	Access to food has improved in recent months, driven mostly by lower prices of imported commodities. Minimal food insecurity will be expected through at least September (FEWSNET 06/2014).	Most households will be in Minimal (IPC Phase 1) acute food insecurity from now through September 2014 (FEWSNET, 05/2014).	Poor households throughout the country are able to meet essential food and non-food needs through normal livelihood strategies and will face Minimal acute food insecurity (IPC Phase 1) through at least September (FEWSNET 05/2014).
Nutrition levels	As of 2010, 21.1% of children under 5 were underweight, 44.9% suffered from stunting and 7.6% from wasting (WHO 2010).	As of 2012, 35.8% of children under 5 were underweight, 16.3% suffered from stunting and 5.6% of wasting (WHO 2012).	As of 2007, 20.4% of children under 5, 39.4% suffered from stunting and 7.8% from wasting (WHO 2007).
Literacy rates	As of 2011, total literacy levels were 43.3% (54.7% for men and 32.6% for women) (CIA 2011).	As of 2010, total literacy levels were 41% (52% for men and 30% for women) (CIA 2010).	As of 2010, total literacy levels were 60.8% (64% for men and 56.8% for women) (CIA 2010).