

## **Ebola outbreak in West Africa – What are the lessons learned from a coordinated network response in East Africa?**

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An outbreak of Ebola virus disease (EVD) began in December 2013 in Guinea (1) and has spread in West Africa since then. To date (July 31, 2014), there have been 1,323 cases in four West African countries (Guinea, Liberia, Nigeria, and Sierra Leone) and 729 deaths. This is the first outbreak of EVD in West Africa; previous outbreaks have mainly occurred in East African countries. The initial local infection control responses have been slow and not well coordinated; the response has further been impaired by the fact that Guinea is one of the poorest countries in the world (ranking 178/187 countries UNDP Human Development Index) along with Liberia (174) and Sierra Leone (177). (2) Health infrastructure is almost non-existent and the countries are subject to continued civil unrest and corruption.

The outbreak has continued to spread to neighbouring countries through porous borders and to another West African country via air travel; the international response and attention is now increasing. Although there are many international agencies providing support and advice, there does not appear to be a coordinated regional response. Communication and sharing of information between counterparts in different countries has not occurred and regional cooperation is therefore difficult.

### **The Eastern and Southern African knowledge and experience must be leveraged**

There are no infectious disease surveillance networks in West Africa and the West African population is experiencing the largest outbreak of Ebola disease since record. This stresses the importance of leveraging the unique first hand experience of previous outbreaks in East Africa where SACIDS and EAIDSNet are networks that link Eastern and Southern African countries for the surveillance of infectious diseases.

SACIDS has summarised the key lessons learned from previous outbreaks of Viral Haemorrhagic Fevers such as Ebola and Marburg as:

- Invest in health infrastructure;
- Develop policies to facilitate collaborations between health and other sectors from different countries;

- Implement outbreak control by relevant multi-disciplinary teams; and
- Educate the communities about risks (3)

### **The Ebola outbreak in Uganda 2000/1**

Reflecting on a large outbreak of Ebola disease virus in Uganda 2000/1 there are several areas of lessons and recommendations:

#### **Lessons for information sharing**

##### *Early detection – rapid response*

Key for early detection of outbreaks is to have close surveillance activities on a routine basis. (4) Having a local field laboratory (BSL4 in Gulu, Uganda) with the capacity to handle samples of Ebola patients safely and securely within a short time period is considered important to support containment measures. (5)

##### *Informal information gathering – rumour registry*

Members of the public reported and alerted health care facilities about cases in their community. A “rumour registry” for informal surveillance was kept by health officials and followed up by trained staff in surveillance teams. (5) For the containment of the outbreak Gulu a task force was activated swiftly. This, together with a quick lab confirmation of samples, enabled focused containment measures.

#### **Lessons for communication**

##### *Communications*

One of the major problems in the outbreak management of Viral Hemorrhagic fevers such as Ebola and Marburg fever is public fear and miscommunication. One of the key achievements in outbreak control is seen by SACIDS to be the Ministry of Health’s accurate, early and transparent communication. (6) Education of the public about the disease and measures that they can take to reduce their risks has proved to be a successful strategy.

There is no cure and no causal treatment for EDV, but data from the largest outbreak of Ebola so far (Uganda 2000/1) suggests the reduction from a case fatality rate of 100% (untreated) to 64% (with supportive treatment). (5) However, most

communications state that the fatality rate is up to 90%, which does not motivate patients or relatives to seek help or isolation in a health facility.

It is recommended that the measures for the public to be actively involved are communicated early to build their confidence in responding to the health threats and actively contribute to the management of the outbreak. (5, 7)

Instil confidence and not fear – is a key message; not only for local media coverage, but for international media reporting as well.

### *Public as partners*

When response teams arrived in villages to support local health teams, people in the village already knew that Ebola was a deadly disease. There was a high degree of fear and stigmatisation. (7) It is important to work with the community and involve local chairmen, religious leaders and council member prior to any activities in the community. Even drastic measures such as quarantine was more successful when imposed by the community – rather than by health authorities or other strangers. (5)

## **Lessons for coordination**

### *Information sharing*

Information was shared on a daily basis in meeting. Although this seemed to be a time consuming procedure, it turns out that this face-to-face meeting served multiple purposes: officials avoided duplications, double-checked with more senior staff and ultimately created the treated trust among health professionals and members of the public. (5)

### *Cooperation*

Coordination committees and sharing information widely with various stakeholders played a crucial role in fighting the Ebola outbreak in East Africa. (6) To leverage first hand experience and support West African colleagues, knowledge transfer and translation of practices in East Africa into current circumstances is of high value. East African networks, SACIDS and EAIDSNet, have identified lessons learned. (3, 6)

### *Risk communication training*

Based on needs identified in CORDS, the Rockefeller Foundation commissioned a risk communication training for the CORDS networks at the Bellagio Centre in July

2013 and subsequently in SACIDS. This risk communication training built and strengthened the capacity for information sharing, communication and coordination.

### **Actions being taken**

#### *Leverage first hand experience*

The coordinated response and cooperation is of high value to leverage their unique first hand experience; the high security laboratory at the National Institute for Communicable Disease in South Africa (SACIDS) is enhancing regional capacity through SACIDS and preparing to send a team to West Africa.

#### *Share lessons learned*

In order to further identify lessons learned for the current outbreak a workshop is planned in East Africa to better support the international community focus their activities. These lessons will be summarised and published widely.

#### *Strengthening capacities*

SACIDS networks include the National Institute of Communicable Diseases in South Africa (<http://www.nicd.ac.za/>) that enhances national and regional capacity in terms of facilities, expertise and on-going research and surveillance programme for Emerging Diseases, including Ebola. This programme is lead by Prof Janusz, who also is also SACIDS Deputy Director. Research programmes include work on the ecology of viral haemorrhagic fevers, with special focus on Ebola and Marburg as well as LuJo virus (a virus that was discovered by them in 2008). And incidentally, a SACIDS Postdoc from the DRC was the first non-South African African to be trained in working under BSL-4 conditions.

### **References**

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