

Abstract

At the beginning of 2020, the recent outbreak of Ebola Virus Disease (EVD) in the Democratic Republic of Congo (DRC) had passed 3,000 cases and was still on-going, but its impact had slowed down. During the outbreak, a single instance of potential crossborder transmission took place in June 2019. Ugandan health officials in Kasese district identified three suspected cases of EVD; a young boy, his grandmother and his sibling. The trio had crossed into Uganda from the Mabalako Health Zone in the DRC and screening at the national border post indicated the boy was unwell. Unfortunately, all three died later after positive confirmation of EVD. The Ugandan health ministry later conducted an After Action Review (AAR), with support of WHO, on 29 and 30 August 2019. The AAR showed that timely action and an all-front approach helped to quickly control the outbreak in Kasese. Freely sharing information across borders, stakeholder collaboration, communitybased surveillance in more than 227 villages in and around Kasese district, and the screening more than 1,700,000 people in less than one month were vital in the response to EVD. Additionally, on-site sample testing reduced turnaround time for laboratory results. Advanced preparation, timely deployment of teams and confirmation of suspected cases of EVD, community engagement and development of subnational capacities are essential in effective response to infectious disease threat events (IDTE).

Description

Process and outcomes

Context: In June 2019, three cases of suspected Ebola virus disease (EVD) were identified at the border of Uganda and Democratic Republic of Congo.¹ All the three belonged to a single family cluster and were epidemiologically linked to the DRC. The family had recently returned to Uganda after attending a funeral at the Mabalako Health Zone in the DRC. Among them, a 5-year old boy showed signs of illness during the screening process by the National Border Health system at Kasindi health checkpoint in Uganda. He then presented to Kagando hospital in Kasese district where the attending health worker suspected EVD as the possible cause of his illness. The boy was then transferred to the Bwera Ebola Treatment Unit (ETU) in Kasese. The other two family members (a grandmother and a sibling of the boy) who had travelled with the boy from DRC also developed Ebola-like symptoms and tested positive for EVD. The boy

and his grandmother, died at the Bwera ETU. The boy's sibling was removed from Uganda and sent to his home in the DRC. Unfortunately, he died on arrival.

The AAR results: The ministry of health in Uganda requested an After Action Review (AAR) of the EVD outbreak response in Kasese. The AAR following the Kasese outbreak ran on 29 and 30 August 2019. The AAR showed that timely action and an all-front approach helped to quickly control the outbreak in Kasese. Cordial cross border collaboration between DRC and Uganda facilitated the unobstructed sharing of information. A group of 21 organizations held regular meetings and coordinated field activities to facilitate this response. Generally, effective surveillance exists at the border: 30 control posts that could screen more than 1.7 million people per month exist at points of entry. Furthermore, the onsite EVD sample testing laboratory in Kasese significantly reduced the turnaround time for laboratory test results from 24 hours to less than 3 hours. Additionally, enhanced community-based surveillance reached more than 227 villages in and around Kasese district.

Ebola virus disease - Republic of Uganda Disease outbreak news 13 June 2019 (https://www.who.int/csr/don/13-june-2019-ebola-uganda/en/ Accessed 30th January 2021)



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Assessment of IHR core capacities: After the Kasese AAR, participants were invited to assess the performance and use of selected International Health Regulation (2005) core capacities during the response (e.g. coordination, laboratory, surveillance, risk communication and points of entry). Participants were asked to rate capacities on a scale of 0 to 3, with zero being 'capacities could not be performed,' one being 'performed with major challenges,' two being 'performed with some challenges' and three being 'performed without any challenges.'

Results from assessment of IHR core capacities:

These concurred with the results of the AAR. Participants experienced limited or no challenges when following the recommended actions for IHR Coordination and IHR focal point functions, laboratory and National health emergency framework (score 2 or 3). Conversely, the participants experienced immense challenges when following the recommended actions for entry points (score 1). The radar chart below summarizes the scores for Kasese EVD response provided by participants (Figure 1).

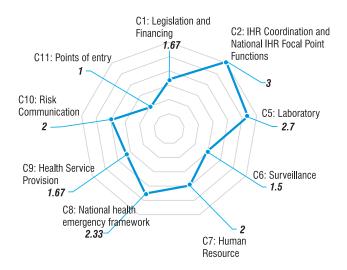


Figure 1: Evaluation of IHR (2005) core capacities during Kasese EVD response

Way forward

The AAR provided several valuable lessons. First, it is essential to prepare and distribute appropriate and clear guidelines, standard operating procedures and terms of reference, and train teams in advance of emergency health events. Second, early deployment of competent and adequate multidisciplinary teams is critical for timely containment of an outbreak.

A delay in dispatching response teams for protracted outbreaks is highly demotivating and can cause communities to mistrust the emergency response teams. Third, timely testing and confirmation of disease in suspect cases increases community responsiveness and eases overall acceptance of emergency management teams during the response. Fourth, the involvement of village health team leads facilitates the tracing of patients' contacts and communication of health risk information. Communities, through their leaders, should be involved in preparedness activities, this helps public health messages to reach broader audiences for risk behaviour change, timely reporting of events and general trust in the system.

Fifth, the establishment of sustainable capacities at district and national levels implies prepositioning logistics and having case management teams in districts in place, or the transport and temporary or permanent placement of Ebola Treatment Units in the districts. Sixth, though the effective coordination of response to outbreaks is essential, coordination mechanisms like meetings at national and district level and supportive supervision trips are seldom funded. This limitation impacts the ability of countries to monitor response activities.

which surpassed 3,000 cases, an isolated instance of potential cross-border transmission took place. In June, 2019 Ugandan health officials in Kasese district reported three confirmed cases of EVD; a young boy, his grandmother and his sibling. The trio had crossed into Uganda from the Mabalako Health Zone in the DRC; screening at the national border had indicated the boy was unwell. Sadly all the three died. The Ugandan health ministry later conducted for an After Action Review (AAR), with support of WHO, on 29 and 30 August 2019. The AAR showed that timely action and an all-front approach helped to quickly control the outbreak in Kasese. Although points of entry may have been a potential source of crossborder transmission, unobstructed sharing of information between the two countries, stakeholder collaboration, community-based surveillance in more than 227 villages in and around Kasese district, and the screening more than 1,700,000 people in less than one month were vital in the response to EVD. Additionally, on-site sample testing reduced turnaround time for laboratory results. Advanced preparation, timely deployment of teams and confirmation of suspected cases on EVD, community engagement and development of subnational capacities are essential in effective response to IDTE.

Lay Summary

During an outbreak of Ebola virus disease (EVD) in the Democratic Republic of Congo in 2020,

Cross-border response to Ebola at points of entry: difficult but possible with rapid response. Case study

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