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Strengthening One Health in Uganda: an After-Action Review of Crimean Congo Hemorrhagic Fever Outbreak Response

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Background:

The Uganda Ministry of Health confirmed an outbreak of Crimean Congo Hemorrhagic Fever (CCHF) in Nakaseke district in central Uganda with one human case and no deaths, in November 2015. CCHF is a zoonotic viral disease caused by the CCHF virus that belongs to the genus Nairovirus (family Bunyaviridae). The disease is transmitted by Ixodid (hard) ticks to animals and from animal to human but human to human transmission can also occur.



Ticks of the genus *Hyalomma* are reservoirs and vectors of the CCHF Virus (Source: CDC)

It is asymptomatic in infected animals, but a serious threat to humans with nonspecific febrile symptoms, which progress to a serious hemorrhagic syndrome with a high case fatality rate of up to 40%. The virus is a potential bioterrorist agent and has been listed in the U.S. as a CDC/NIAID Category C priority pathogen.

Objectives:

An After-Action Review (AAR) of the CCHF response was conducted, using a One Health (OH) approach to identify and document the strengths, challenges and gaps in conducting a multisectoral zoonotic disease outbreak investigation and response. Provide government with short and long term recommendations in order to be better prepared to respond to future outbreaks of CCHF and other zoonotic diseases.

Methodology:

Investigators from human, animal and wildlife sectors were provided with an AAR Protocol developed by USAID Preparedness & Response Project (P&R) that standardize the review process into clearly defined parameters to address the main issues of implementing field investigations and response under a OH approach. Documented information such as; questionnaires, minutes of meetings, investigation notes, laboratory results, interviews and discussions were used to obtain information for analysis.



Sample collection from a Uganda Kob (Source: Uganda Wildlife Authority)

Results /Major Findings

The key findings show engaging different sectors using the One Health approach promoted collaboration, resource sharing, and partner support. However, challenges and gaps identified were the lack of an emergency fund in sector budgets, delays in the release of funds, and ill-equipped laboratories, all leading to delays in disease confirmation and response.

Policy Recommendations

Zoonotic diseases such as CCHF require a One Health approach and for effective response an emergency response fund should be established. Laboratory services should also be improved to support outbreak preparedness and response.

Conclusion:

Government formally adopted the One Health approach and established a National One Health Platform which was launched in November 2016 with technical working groups and a coordination unit. The One Health approach has since improved zoonotic disease outbreak preparedness, coordination and response and in addressing other One Health issues within the context of the Global Health Security Agenda and International Health Regulations.



Launch of the National One Health Platform (Source: USAID Preparedness & Response Project)

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