

Research Application Summary

Experiences in the ‘One health approach’: Situational analysis of preparedness for Epi-Zoonotic emergencies in six Eastern Africa countries

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Abstract

This paper reports on a situation analysis that assessed the capacity for response to zoonotic emergencies in 6 countries, namely Uganda, Kenya, DR Congo, Ethiopia, Rwanda and Tanzania. Most of the countries did not have policies for preparedness, technical responses were handled by various ministries, with very limited cross coordination. Also, there was generally limited capacity to handle zoonotic emergencies.

Key words: Eastern Africa, Epi-zoonoses, situational analysis

Résumé

Cet article présente une analyse de la situation qui a évalué la capacité de réponse aux urgences zoonotiques dans 6 pays, à savoir l’Ouganda, le Kenya, la République démocratique du Congo, l’Ethiopie, le Rwanda et la Tanzanie. La plupart des pays n’ont pas de politiques pour la préparation ; des réponses techniques ont été traitées par les différents ministères, en coordination en travers très limitée. En outre, il y avait généralement une capacité limitée pour traiter des urgences zoonotiques.

Mots clés: Afrique de l’Est, Epi-zoonoses, analyse de la situation

Background

Epidemics of infectious diseases rank among the top 5 disaster hazards in the Eastern Africa region. Of particular concern are the new and emerging infectious diseases, most of which are zoonotic diseases (Rock *et al.*, 2009). The animal-human interface should form a key focus for searching for new highly pathogenic infectious agents. Epidemic prone zoonotic diseases (epi-zoonotics) are becoming a global public health challenge (Conrad *et al.*, 2009; Mazet *et al.*, 2009). Learning from the

experience of Influenza A H5N1 and H1N1, SARS, Nipah Virus and HIV, it is important that global efforts are re-focused to intensified pre-emptive surveillance and early detection of these pathogens while they are still in animals (Chandrasekhar and Parija, 2009; Conrad *et al.*, 2009). According to the USAID, these surveillance activities should be taken to the 'geographic hot-spots' and 'high risk' communities in order for them to be effective in preventing major pandemics. The Eastern Africa region and the Congo Basin form a 'hot-spot' for emergence of new infectious diseases and some have caused deadly epidemics at different foci (Mazet *et al.*, 2009). However, capacity for response to zoonotic emergencies is largely inadequate in the region. It is on this basis that a multicountry situational analysis of institutional capacity for early warning, detection, prevention and control of zoonotic diseases of epidemic potential was conducted for 6 countries (Uganda, Kenya, Tanzania, Rwanda, DRC and Ethiopia). The objective was to assess capacity for response to zoonotic emergencies based a 'One Health' approach.

Study Approach

A multi-country assessment involving 6 country teams was conducted. The country teams were composed of epidemiologists, public health specialists and disaster management trainers. A review of records, country policies and policy briefs, programme documents, and interviews with key informants from stakeholder agencies were conducted. The key informants were from varying sectors including surveillance and veterinary Public Health departments in ministries of health, leaders of public health and veterinary training schools, representatives of Civil and Non-Government organizations involved in health care support as well as representatives in districts and regions.

Research Application

There are many socio-economic and cultural factors that predispose human beings to transfer of disease from animals. These factors are highly prevalent in almost all subsistence communities, yet health education activities targeting these behaviours are minimal.

Countries have varying levels of preparedness for emergencies originating from epi-zoonoses. Most countries do not have policies for disaster management, and where they exist, zoonotic emergencies are not adequately covered. However, most countries have a framework for disaster management, but these frameworks focus on response rather than prevention and

preparedness. Technical response to epidemics is managed by the line sectors, with limited collaboration between sectors. Animal health emergencies are managed under the Ministries responsible for Agriculture/Livestock while epidemics in humans are overseen by Ministries for Health and wild-life health emergencies overseen by specialized authorities. It was noted that some sectors were disproportionately more prepared than others but overall capacity was limited to control common epidemics.

Surveillance systems are mostly passive and facility based, meaning that many cases occurring in the communities (especially of new diseases) are likely to be missed. There were a limited number of surveillance activities at areas with intense interaction between humans and animals, most of them focusing on specific diseases. It was noted that all countries had built reasonable capacity to respond to avian influenza. However, there was need to cascade the capacities for avian influenza so as to strengthen the entire veterinary public health structure. Although four of the countries have veterinary personnel at all administrative levels, there were gaps in the areas of specific activities towards surveillance and preparedness. Other countries lacked personnel at lower levels and in general, the veterinary public health services at operational levels were ill-facilitated.

In conclusion, there is need to strengthen veterinary public health services at all levels, but with a 'one health' approach, in which human health is handled jointly with animal health (Linton, 1976; Sculco and Sculco, 1976; MacKenzie *et al.*, 2008). There is also need to establish more active surveillance activities at geographic 'hot spots' and to build community resilience to epidemic prone zoonotic diseases.

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