Ebola viral disease: Need for augmented 'One Health' approaches in Africa

Dear Editor:

Zoonoses present many challenges within a large and complex system and compel responses from different sectors. It has been documented that the last pandemic of swine-origin influenza A H1N1¹ was triggered by a lack of an integrated approach, which allowed for the undetected persistence and evolution of the potentially pandemic strain for many years. Similarly, the absence of integrated stringent control measures with regard to Ebola virus disease (EVD) could trigger a pandemic. In the past, miscalculating an emerging zoonosis and poor risk communication between different sectors had public health consequences with considerable economic loss; the World Bank estimated that zoonoses in the last decade have caused global losses exceeding US\$200 billion.²

Epidemiological risk factor identification focusing on the underlying interactions within the whole system (i.e., systems approach) is suited for management of zoonotic diseases, re-emphasizing the systems approach-based 'One Health' concept that consolidates the "collaborative efforts of multiple disciplines working locally, nationally, and globally to attain optimal health for people, animals and our environment."³ Although an international public health emergency has been declared for the current EVD, the affected countries are experiencing disruptions in such areas as health care, trade, tourism, energy, education, transport, agriculture, and animal husbandry; in the event of a pandemic, worldwide systems disruptions can be anticipated, leading to significant global economic losses.

To prevent this scenario, a joint effort encompassing early recognition of new outbreaks of EVD and rapid response to such

events is required. Some developed countries have networks advocating 'One Health' for combating zoonoses, whereas inadequacies exist in developing nations such as those West African countries in which the current EVD epidemic is taking place. Therefore, to combat the threat of EVD, an augmented networking approach of One Health with the capacity to control and respond to the risks posed by EVD is required, with the support of developed economies.⁴ Three key preventive interventions⁵ recommended for the global response to EVD – preventing the unknown spillover and the introduction of Ebola virus into humans, limiting the handling of bush meat and limiting contact with bats – are unquestionably under the ambit of systems approach-based One Health.

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