

## NOTES

### ZOONOTIC DISEASE UNIT (ONE HEALTH)

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#### **Introduction**

Zoonotic diseases are infections transmitted naturally between animals and humans within a continuum like interface of direct or indirect human exposure to animals, their products and their environments. Zoonotic diseases comprise of approximately 60% of all human infections and about 75% of the new emerging/re-emerging diseases. Some of the zoonotic diseases endemic in Kenya include Brucellosis, Rift Valley Fever, Anthrax, and Rabies.

Apart from the substantial impact on human health, zoonotic diseases also prevent the efficient production of food of animal origin, particularly of much-needed proteins, and may create obstacles to international trade in animals and animal products. Some of these diseases have the potential to spread across borders and become global problems like Highly pathogenic Avian Influenza, 2009 pandemic Influenza and Ebola among others.

The International Health Regulations (IHR) that were revised by the World Health Organization (WHO) in 2005 have explicitly required countries to establish a system for surveillance of zoonoses and potential zoonotic diseases, as well as a mechanism for coordinating all relevant sectors in the implementation of IHR. In the current OIE strategic plan (2011-2015), a Strategic Framework for collaboration in reducing risks of infectious diseases at the Animal–Human–Ecosystems interface has been laid down under item 89 of the Fifth strategic plan.

#### **Road map to One Health in Kenya and Formation of Zoonotic Disease Unit**

In Kenya, One Health approach to zoonotic disease management has gained a lot of support and great efforts have been deployed to institutionalize its approach.

In 2006, a Multisectoral group of experts formed the National Influenza Task Force (NTF) in response to the threat of H5N1 pandemic influenza and later (2006- 2007) the task force was involved in the planning and implementation of the response activities during the Rift Valley Fever (RVF) outbreak in Kenya. This more rapid and better coordinated response appeared to result in more effective management of the epidemic that led to less morbidity (infections) and mortality (deaths) in both humans and animals when compared to a similar RVF epidemic in 1997-1998. Using lessons learned from the RVF outbreak, the National Task Force recognized the need for a more focused group dedicated to zoonotic diseases that would effectively link human and animal health experts and systematically address management of zoonotic diseases.

In 2008, the NTF was renamed the Zoonotic Technical Working Group (ZTWG) and a terms of reference were developed. Since 2008, the ZTWG meets on quarterly basis and consists of approximately 20 experts with representation from the Ministry of Public Health and Sanitation (MoPHS), Ministry of Livestock Development (MoLD), WHO, Food and Agriculture Organization, Kenya Medical Research Institute, Kenya Wildlife Services, Center for Disease Control and Prevention among other stakeholders.

In effort to ensure regular coordination of One Health activities in the Country, ZTWG advised the government to create a unit within the Ministries that would be mandated to carry out this activity. To address this need, therefore, MOLD and MOPHS established the Zoonotic Disease Unit (ZDU) based on One Health principles by signing a memorandum of understanding (MOU) on 2nd August 2011. Terms of references were outlined in the MOU after which a strategic plan for implementing One Health in Kenya was developed. The mission of the ZDU is to establish and maintain active collaboration at the animal, human and ecosystem interface towards better prevention and control of zoonotic diseases. For sustainability, the ZDU is nested between the two Ministries and has the technical staff seconded from the MOLD and MOPHS. (Fig.1).

With support from the United States Government (Biosecurity Engagement Program of the US Department of State, the Cooperative Biological Engagement Program of US Department of Defense, and Centers for Disease Control and Prevention), the ZDU rental office was opened on March 1<sup>st</sup>, 2012 and construction of a permanent ZDU office on government of Kenya grounds started. The permanent ZDU offices were completed and handed over to the government on August 30<sup>th</sup>, 2012.

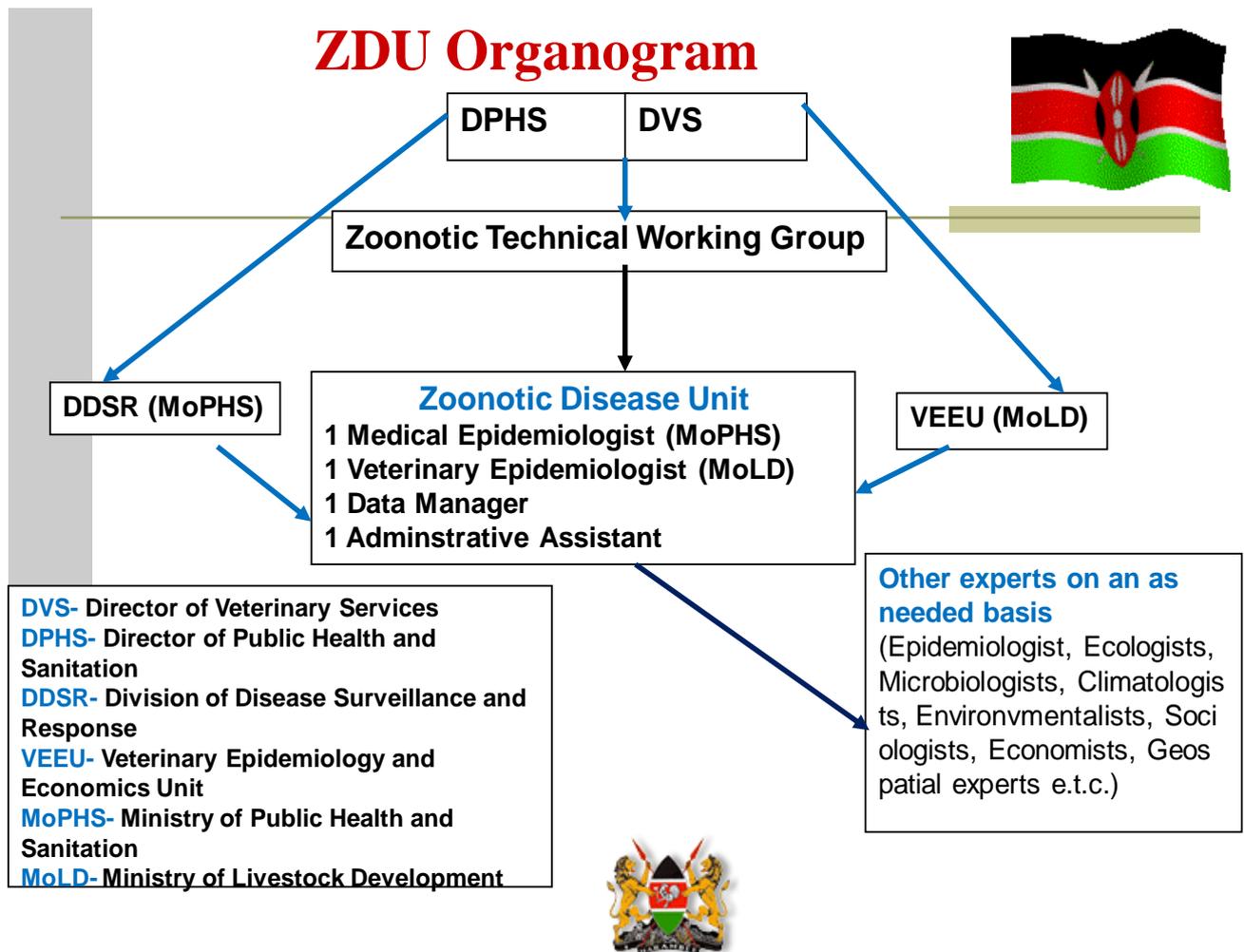


Figure 1: Organogram for the Zoonotic Disease Unit

Shortly after its inception in March 2012, ZDU was able to demonstrate its utility, by successfully responding to reported cases of Human African Trypanosomiasis (sleeping sickness) among tourists visiting Maasai Mara Game Reserve in March- April 2012.

ZDU has also initiated a study that is looking at the burden of brucellosis among humans and animals in Kenya. This will inform the Ministries on best approaches to diagnose, prevent and control this disease using evidence based information.

### **The Future of ZDU**

The vision of ZDU is to have a country with reduced burden of zoonotic diseases like anthrax, rabies, brucellosis; and better able to assess Kenya's risk to emerging infectious diseases like the Ebola disease which has recently hit Uganda and Democratic Republic of Congo. This will also guide the Ministries in development of specific disease control strategies as well as contingency plans.

In partial fulfillment of the Millennium Development Goals (MDGs) and the Vision 2030, ZDU will concentrate on actions that promote health (human, animal and environment); hence promoting food security and reduction of extreme poverty. This will be achieved by strengthening surveillance, prevention, and control of zoonotic diseases, establishment of structures and partnerships to promote One Health approaches as well as conducting research at the human-animal-ecosystem interface.