One Health: a concept led by Africa, with global benefits

Titus Mlengeya Kamani and others argue that Africa is well positioned and equipped to conduct and benefit from an integrated approach

ONE Health evolved from the recognition that an interdisciplinary approach is required to understand complex health problems, and that the health of humans and animals are inextricably linked. Through closer cooperation between the human, veterinary and environmental health sectors, added value, in terms of health metrics, cost savings and environmental services is achievable. Although the One Health concept has been recognised for many years, particularly since the seminal work of Calvin Schwabe (Schwabe 1984), many challenges remain in making it operational.

In Africa, however, where people’s lives are intimately related to the health and productivity of livestock and the natural environment, the situation is different. National medical and veterinary institutions are still maturing, which presents African health professionals with an opportunity to build on an instinctive understanding of the connectivity between people, animals and their environments, and to ‘leapfrog’ barriers imposed by more well-established and rigid institutional systems.

The establishment of an effective inter-ministerial zoonotic disease unit in Kenya, which has rapidly developed integrated national plans for rabies control and elimination, is one example of how these opportunities are being met with innovative cross-sectoral structures.

Following a succession of global disease problems, such as highly pathogenic avian influenza, SARS, Ebola virus disease and bovine spongiform encephalopathy, which all had their origins in animal populations and are linked with agroecological change, it is perhaps surprising that One Health has gained so little mainstream traction among biomedical professions. A possible explanation is that separate animal and human health agencies, responsible for disease prediction, prevention and control, have been embedded in many developed countries since the 19th century, with institutional barriers impeding horizontal collaboration. The resulting gulf between human and animal health, caused by disciplinary conventions and cultures rather than scientific rationale, divides medicine in two.

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Opportunities for One Health in Africa are also provided by new academic organisations, such as the Nelson Mandela African Institutions of Science and Technology (NMAIST), which aim to train and nurture the next generation of African scientists to address the development needs of the continent. These fledgling institutions – the Tanzanian campus of

A vaccine is prepared while owners of domestic dogs in a village in northern Tanzania wait in line for their dogs to be immunised against rabies.

Image: Felix Lankester
The world is looking to African researchers as world leaders to develop the emerging discipline of One Health, and the health of the global community will undoubtedly benefit from its effective implementation.

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References
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Titus Mlengeya Kamani, Rudovick Kazwala, Sayoki Mfinanga, Dan Haydon, Julius Keyyu, Felix Lankester and Joram Buza

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