

AFROHUN Kenya Policy Briefs

Scaling up implementation of One Health approach in Kenya: Overcoming the bottlenecks

Mosoti Mogo¹, Peter Gathura¹, Judith Mangan², Rose Opiyo¹, Christine Minoo¹, Diana Muta³, and Sam Wanjohi³

¹University of Nairobi, ²Moi University, ³AFROHUN-Kenya Country Office

*One Health is a simple and powerful concept with a complex implementation process
(Bhatia, 2019)*

Summary and Policy Recommendations

One Health is defined as a collaborative, multi-sectoral, and trans-disciplinary approach, working at the local, regional, national, and global levels with the goal of achieving optimal health outcomes for people, animals, plants, and the environment they share. It is the recommended approach to managing threats of public health importance as this comprehensive approach has been shown to achieve the best health outcomes.

From time to time, Kenya like many other countries is faced with a number of One Health issues including zoonotic diseases; antimicrobial resistance; food safety and food security; vector-borne diseases; environmental contamination and others whose effective management requires a One Health approach. Given this, Kenya established a One Health Institutional Framework by setting up a National One Health office in 2012 – bringing together two key ministries responsible for public health and animal health to promote and coordinate multi-sectoral disease surveillance and outbreak response activities between these two ministries and other key stakeholders, at both the national and sub-national levels. Since its institutionalization in Kenya, One Health has been driven by collaborations and partnerships between local One Health stakeholders and partner institutions in research, training and community engagements - focusing on One Health issues especially zoonotic diseases, antimicrobial resistance and food safety. Numerous partners (United States Agency for International Development [USAID], Centres for Disease Control and Prevention [CDC], Global Health Security Agenda [GHSA], among others), local One Health stakeholders including One Health Central and Eastern Africa (OHCEA) and now Africa One Health University Network (AFROHUN), have helped in the implementation of the One Health Approach in the country in the last decade. Whereas the country has made appreciable strides in implementing the One Health approach especially in enhancing One health institutional and workforce capacity and Institutional collaborative research on key zoonoses, strengthening surveillance systems for early detection of zoonoses, and development of a One Health strategic plan for the country, it is the position of some stakeholders that the pace of implementation of the approach is not commensurate with trends in emergence of threats of public health importance. And here, lies the basis for this policy synthesis.

One of the key requirements for successful implementation of a One Health approach is an enabling One Health policy environment. Recent studies have shown that there are policy and institutional capacity gaps that form part of the challenges facing the implementation of the approach in Kenya.

In this policy brief, we identify these challenges as seen from the perspective of the stakeholders, and give the following policy options and recommendations which if anchored in a comprehensive One Health policy, will scale up the implementation of One Health approach in the country:

- 1) The government should develop a comprehensive One Health policy for the country. The process of developing this policy must endeavour to involve all One Health stakeholders as a way of fostering ownership of the One Health Policy.
- 2) Any One Health policy developed through stakeholder engagement must strive to be sensitive to and in harmony with existing policies of all collaborating sectors
- 3) There should be deliberate effort in ensuring the One Health institutional and organizational frameworks are all encompassing, by bringing into decision making processes all relevant sectors in the letter and spirit of the One Health approach – of being collaborative, trans-disciplinary, multidisciplinary and multi-sectoral in nature. And in this regard, as a matter of urgency, the environmental sector (and all other relevant sectors) must have unequivocal representation in all One Health institutional and organizational frameworks in Kenya.
- 4) Given that the One Health stakeholders have identified challenges to the implementations of One Health approach, and prescribed the solutions to these challenges, it is recommended that government seizes the moment and leveraging the strength of individual stakeholders, work towards scaling up the implementation of the approach.
- 5) Collective action of all One Health stakeholders should be encouraged and supported in different ways in the process of seeking ways to scale up the implementation of One Health approach in Kenya
- 6) The government should pursue the objectives and strategies as outlined in the National Strategic Plan for the Implementation of One Health in Kenya 2012 -2017 (ZDU, 2014) and the recently launched One Health strategic plan 2021 – 2025 (ZDU, 2021) as these offer pathways to achieving progressive implementation of the One Health Approach.

Introduction

One Health is fronted and endorsed as an initiative that promotes a holistic approach to addressing complex global health issues (Bank, 2018; Rajesh Bhatia, 2019; R Bhatia, 2021; CDC, 2020; Collaboration, 2020; Falzon et al., 2018). There are benefits in using One Health approach in tackling public health challenges – it can help galvanize and enhance capacity in the prevention and control of emerging infectious diseases and in the management of other public health threats (Degeling et al., 2015). By using One Health approach, synergism is achieved and this can lead to a number of positive outcomes including improved communication (Adhikari, 2019; Degeling et al., 2015), improved surveillance, decreased lag time in response, improved health and economic savings, and enhanced public health efficacy (Häsler, Cornelsen, Bennani, & Rushton, 2014; Nyatanyi et al., 2017; Rostal et al., 2018), among others, which can translate to the protection and saving of millions of lives in our present and future generations.

Based on this understanding, in the year 2021, Africa One Health University Network - Kenya (AFROHUN-Kenya), one of the major One Health stakeholders in Kenya, brought together One Health stakeholders on a number of occasions to deliberate on how together, they can scale up the implementation of One Health in the country. This was borne of the concern that there are a number of bottlenecks to this process.

Context and Importance of the problem

During the AFROHUN Kenya-initiated One Health Consultative forums in 2021, *three* important issues were shared and discussed. These were the requirements for implementation of a One Health approach; the current One Health policy gaps in Kenya; and the known barriers to implementation of One Health approach. Stakeholders were clear that implementation of One Health Approach requires among other things a favourable One Health policy environment, establishing a One Health institutional framework, building One Health institutional capacity, conducting One Health research, recognizing the role of One Health stakeholders, and forging multi-disciplinary / multi-sectoral collaborations and partnerships. Furthermore, there is need for: One Health workforce development, a robust / strong communication / information dissemination system, sustainable resourcing (funding) of One Health initiatives, community engagement, engineering a cultural shift in the management of public health threats, and seeking and establishing political goodwill (AFROHUN, 2020; Degeling et al., 2015; FAO, 2020b; Munyua et al., 2019; Mwatondo et al., 2017; Nyatanyi et al., 2017). It did not escape the attention of the stakeholders that the country had made a number of gains in the implementation of the One Health approach since the institutionalization and operationalization of One Health through establishment of the Zoonotic Disease Unit [ZDU] in 2012, a decade earlier. Notable among these are: the prioritization of zoonotic diseases in Kenya and the development of the country's first strategic plan for implementation of One Health; establishment of One Health units in devolved government units (Counties) across the country from 2013(Munyua et al., 2019) through partnership with CDC and GHSA; strengthening of surveillance systems for early detection of zoonoses especially through use of mobile phone-based active disease surveillance (Munyua et al., 2019); institutional collaborative research which has been and continues to be carried out, focusing on a number of zoonotic diseases like brucellosis, anthrax, RVF, Q-Fever, MERS-Cov, Rickettsia (AFROHUN, 2020; Munyua et al., 2019); the on-going population-based infectious disease surveillance (PBIDS) and research on potential zoonotic diseases in small mammals in various parts of the country (Munyua et al., 2019). Others are: development of prevention and control plans such as the Rift Valley fever integrated preparedness and response plan and the rabies elimination plan that aims to eliminate human rabies by 2030; provision of a forum for communication and sharing of data between the human and animal health ministries and among research partners working on zoonosis; and training of One Health workforce since 2004, under ZDU's Field Epidemiology and Laboratory Training Program (FELTP) (Munyua et al., 2019) among others. However, there is still a lot that needs to be done owing to existing challenges.

In respect of One Health policy, existence of policy gaps was informed by three previous studies (AFROHUN, 2020; FAO, 2020a, 2020b). These three studies identified the various stakeholders in Kenya, their affiliations and the clear inadequacy of the existing One Health policy in terms of providing for inclusivity of the major stakeholders in the existing One Health institutional framework. A policy is an

important instrument that provides guidance on how to achieve specific goals set by institutions or organizations. A favourable One Health policy environment requires formulation of an appropriate One Health policy and legislative framework; One Health awareness creation among policy and decision makers; breaking the sectoral approach to human, animal and ecosystem health issues through policy initiatives; and knowledge integration at every stage of policy development to strengthen governance and coordination. Based on the findings of one of these studies (FAO, 2020b), the current legislative framework is relatively weak on One Health provisions to the extent that it barely facilitates a One Health approach (FAO, 2020b). This is despite the *proposed* revisions in the Health Act 2017 and Animal Health Bill 2019 (Kenya, 2019). It is on the basis of this that this study in its conclusion provided that “*the government in collaboration with the FAO Africa Sustainable Livestock 2050 project, plan to engage selected One Health policy stakeholders to discuss options to refine and operationalize the existing policy framework so as to enhance the capacity of the country to deal with current and emerging public health threats along the livestock value chain*”(FAO, 2020b). To AFROHUN-Kenya, this is a most welcome initiative. AFROHUN Kenya’s position in this brief is that the *proposed/ planned* issues are seen through to realize a more enabling One Health policy environment.

The current legislative framework is relatively weak on One Health provisions (FAO, 2020b).

Barriers to implementation of One Health approach in Kenya were identified and discussed in the 2021 One Health stakeholder forum, and these are not unique to Kenya but can be found in many other countries (Rajesh Bhatia, 2019; Degeling et al., 2015; Munyua et al., 2019; Mwatondo et al., 2017; Nyatanyi et al., 2017). Key among these barriers are the inadequate One Health policy and legislative provisions; inadequate implementation of existing One Health policy provisions; poor resourcing of surveillance, disease reporting and laboratory diagnosis services; fragmented and disconnected governance of sectors responsible for health, animal health and environment; poor adoption of One Health approach at sub-national level (County and sub-County); lack of incorporation of especially the environmental health sector into the mainstream One Health institutional and organizational framework thus encouraging continued operation of the ‘silo’ culture; inadequate numbers of experts trained in One Health approach; and lack of clarity about the definition, concept and scope of One Health approach. Others are: under-recognition and inadequate understanding of economic benefits of a One Health approach; poor communication in One Health; lack of guidance on how to operationalize the One-Health approach at national level; weak capacity for disease surveillance and response in the animal health sector as compared to the public health sector; inadequate training activities; inadequate deployment of improved technologies in data management in disease surveillance, prevention and control; battles over curricular time in training programmes; issues related to licensing and certification; interdisciplinary turf wars; and sustainability of One Health initiatives in absence of supporting donors and partners (AFROHUN, 2020; FAO, 2020a, 2020b; Munyua et al., 2019; Mwatondo et al., 2017). In the recent past, the Tripartite (The Food and Agriculture Organization of the United Nations [FAO], the World Organization for Animal Health [OIE], and the World Health Organization [WHO], together with the United Nations Environment Programme [UNEP] through their advisory panel - the One Health High Level Expert Panel (OHHLEP) came up with an operational definition of One Health (which the four bodies endorsed) which reads: “**One Health** is an integrated, unifying approach that aims to sustainably balance and optimize the health of

people, animals and ecosystems. It recognizes that the health of humans, domestic and wild animals, plants, and the wider environment (including ecosystems) are closely linked and inter-dependent. The approach mobilizes multiple sectors, disciplines and communities at varying levels of society to work together to foster well-being and tackle threats to health and ecosystems, while addressing the collective need for clean water, energy and air, safe and nutritious food, taking action on climate change, and contributing to sustainable development”(Collaboration, 2020). There is no doubt, and this is clear evidence, that the environmental sector in Kenya, with all its appendages, and the wildlife sector, need to be at the centre of any force driving forward the One Health agenda in the country.

To overcome some these challenges requires the collective action of all stakeholders and Kenya’s One Health stakeholders provided insights on the way forward. Suggested solutions included: pursuing the pathway suggested by FAO on working with stakeholders to develop an all-encompassing One Health policy framework; enhancing the implementation of existing One Health policy provisions; pursuing policy initiatives that bring onto the country’s One Health institutional and organizational framework all other relevant sectors whose absence at the moment is constraining interdisciplinary / trans-disciplinary implementation of a number of One Health initiatives; using policy initiatives to foster multi-sectoral and multi-disciplinary / trans-disciplinary collaborations and partnerships while undertaking all One Health initiatives, *among others*. It is important to note that the fundamental aspect in the One Health approach is multi-sectoral and multidisciplinary / trans-disciplinary collaboration. However, studies have shown that by far, the most challenging factor in implementing One Health initiatives is promoting collaboration between the wide diversity of its stakeholders (Carolinados S. Ribeiroab, 2019). Scaling up the implementation of One Health approach in Kenya must include seeking ways to facilitate and strengthen this multi-sectoral and multidisciplinary / trans-disciplinary collaboration.

It is informing to note that Kenya as a country developed a National Strategic Plan for the Implementation of One Health in Kenya 2012 -2017((ZDU), 2014), and the recently launched One Health strategic plan 2021 – 2025 ((ZDU), 2021). The strategic plan 2012 -2017 outlines three major objectives - establish structures and partnerships to promote one health approaches; strengthen surveillance, prevention, and control of zoonoses; and conduct applied research at the human-animal ecosystem interface; and nine strategies to achieve these objectives, in an effort to enhance the implementation of One Health in the country. The focus of these strategies is on institutionalization of One Health; devolution of One Health; advocacy for resources for One Health programmes; enhancing accountability in the implementation of One Health; enhancing preparedness, prevention and control of zoonotic disease outbreaks; strengthening zoonoses surveillance; enhancing prevention and control of endemic zoonoses; facilitating information exchange with the scientific community and stakeholders focused on One Health; and developing zoonoses research agenda for Kenya ((ZDU), 2014). It is the position of AFROHUN Kenya that all that is required is the implementation of these well-meaning strategies and in the process address literally all the impediments to implementation of One Health identified above.

References

- (ZDU), Z. D. U. (2014). *National Strategic Plan for the Implementation of One Health in Kenya 2012 -2017*. Retrieved from
- (ZDU), Z. D. U. (2021). *One Health Strategic Plan for the Prevention and Control of Zoonotic Diseases in Kenya (2021-2025)*. Ministry of Agriculture, Livestock, Fisheries and Co-operatives and Ministry of Health, Government of Kenya. . Retrieved from
- Adhikari, S. (2019). 'One Health'- A Multi-dimensional Approach to Health! .
- AFROHUN. (2020). *Report on Review of Relevant One Health Policy Documents and Publications*. . Retrieved from AFROHUN Kenya:
- Bank, W. (2018). *One Health: Operational Framework for Strengthening Human, Animal, and Environmental Public Health Systems at their Interface*. International Bank for Reconstruction and Development / The World Bank. Retrieved from
- Bhatia, R. (2019). Implementation framework for One Health approach. *Indian Journal of Medical Research*, 149(3).
- Bhatia, R. (2021). *National Framework for One Health*: Food & Agriculture Org.
- Carolinados S. Ribeiroab, L. H. M. V. d. B., Barbara J.Regeerb. (2019). Overcoming challenges for designing and implementing the One Health approach: A systematic review of the literature. *One Health*, 7.
- CDC, A. (2020). *Africa Centres for Disease Control and Prevention: Framework for One Health Practice in National Public Health Institutes*. *Zoonotic Disease Prevention and Control*. . Retrieved from <https://africacdc.org/download/framework-for-one-health-practice-in-national-public-health-institutes/>. Accessed on 20th August 2021:
- Collaboration, F.-O.-W. (2020). *Sharing responsibilities and coordinating global activities to address health risks at the animal-human-ecosystems interfaces - A Tripartite Concept Note*. Retrieved from
- Degeling, C., Johnson, J., Kerridge, I., Wilson, A., Ward, M., Stewart, C., & Gilbert, G. (2015). Implementing a One Health approach to emerging infectious disease: reflections on the socio-political, ethical and legal dimensions. *BMC Public Health*, 15(1), 1-11.
- Falzon, L. C., Lechner, I., Chantziaras, I., Collineau, L., Courcoul, A., Filippitzi, M.-E., . . . Postma, M. (2018). Quantitative outcomes of a one health approach to study global health challenges. *EcoHealth*, 15(1), 209-227.
- FAO. (2020a). *One Health Policy Stakeholders, A Snapshot*. *Africa Sustainable Livestock 2050*, . Retrieved from United Nations Office:
- FAO. (2020b). *One Health Legal Framework: A Livestock Value Chain Perspective on Emerging Zoonotic Diseases and Antimicrobial Resistance*.
- Häsler, B., Cornelsen, L., Bennani, H., & Rushton, J. (2014). A review of the metrics for One Health benefits. *REVUE SCIENTIFIQUE ET TECHNIQUE DE L OFFICE INTERNATIONAL DES EPIZOOTIES*, 33(2), 453-464.
- Kenya Animal Health Bill 2019, (2019).
- Munyua, P. M., Njenga, M. K., Osoro, E. M., Onyango, C. O., Bitek, A. O., Mwatondo, A., . . . Widdowson, M. A. (2019). Successes and challenges of the One Health approach in Kenya over the last decade. *BMC Public Health*, 19(Suppl 3), 465. doi:10.1186/s12889-019-6772-7
- Mwatondo, A., Munyua, P., Gura, Z., Muturi, M., Osoro, E., Obonyo, M., . . . Thumbi, S. M. (2017). Catalysts for implementation of One Health in Kenya. *Pan Afr Med J*, 28(Suppl 1), 1. doi:10.11604/pamj.supp.2017.28.1.13275

Nyatanyi, T., Wilkes, M., McDermott, H., Nzietchueng, S., Gafarasi, I., Mudakikwa, A., . . . Binagwaho, A. (2017). Implementing One Health as an integrated approach to health in Rwanda. *BMJ global health*, 2(1), e000121. doi:10.1136/bmjgh-2016-000121

Rostal, M. K., Ross, N., Machalaba, C., Cordel, C., Paweska, J. T., & Karesh, W. B. (2018). Benefits of a one health approach: An example using Rift Valley fever. *One Health*, 5, 34-36. doi:10.1016/j.onehlt.2018.01.001