



THE POLITICS OF DELIVERING ONE HEALTH

Diseases that affect people and have their origins in animals (zoonoses) have the potential to cause social, political and economic upheaval, often with little warning. Witness 2014's Ebola outbreak in West Africa, as well as recent avian (H5N1) and swine (H1N1) flu pandemics. Other zoonoses less dramatically, but with wider impact, quietly devastate lives and livelihoods, an added burden in the lives of poor people in poor countries. Growing attention is being paid to integrated, One Health approaches to zoonoses, which involve animal and human health professionals, as well as wildlife, environmental and other specialists. However, practice on the ground is less informed by this ideal and more by approaches rooted in political understandings of disease. To progress with One Health, it is therefore essential to understand the context in which policymakers are operating.



Photo: Sue Welburn

A BACKGROUND TO ONE HEALTH

In recent years, there has been an increasing interest in a One Health approach to zoonoses. In this, human, animal and environmental health are understood to be inter-related, and so a collaborative and multidisciplinary approach offering an integrated response best for disease management. One Health approaches are strongly linked to other approaches, including for example Ecohealth and One Medicine.

A universally-accepted definition of One Health has proved difficult to find, but the approach is being endorsed by an ever-increasing number of players in the research world, with new programmes, courses and funding calls embracing the perspective, and many publications and conferences launched under the One Health marque. Alongside, there has also been a growing policy focus on One Health. Fears surrounding the spread of avian and swine flu and post 9/11 biosecurity concerns have in particular boosted its traction and resulted in the establishment of many new initiatives, actors and networks. Examples of One Health-style integration include the US Centers for Disease Control and Prevention (CDC) One Health Office, the One Health Initiative and the multi-organisational strategic framework *Contributing to One World, One Health* by the UN Food and Agricultural Organization (FAO), World Organisation for Animal Health (OIE), the World Health Organization (WHO), UNICEF and others. However, although widely accepted as desirable in name, an integrated One Health approach is not proving simple and straightforward to put into practice.

THE RESEARCH

The Dynamic Drivers of Disease in Africa Consortium is an international research programme that has explored the factors that influence when and how One Health is used, by whom and to what ends, in five African countries, relating to four zoonotic diseases. These are: Lassa fever in Sierra Leone, trypanosomiasis in Zambia and Zimbabwe, Rift Valley fever (RVF) in Kenya and Henipah viral infections from bats in Ghana. The research was informed by interviews with policymakers, policy influencers and other stakeholders related to the diseases in the case study countries at local, national and international levels.

The research identified four factors that have an impact on the extent to which collaboration takes place in practice, and hence to which an effective One Health approach is adopted:

1. **Technology.** In the desire to see quick and tangible results, there is often a search for technological ‘silver bullets’. This ignores local knowledge and understandings, as well as the complex systems under consideration.
2. **Funding.** There are often territorial battles over limited funds, with particular personalities and national or business or security interests having excessive influence on international bodies.
3. **Discipline.** Ecologists, biodiversity experts and conservationists are often left out of debates informing disease management interventions. Social scientists (with the exception of economists) too are often isolated or, when included, subject to traditional hierarchies which privilege natural scientists.
4. **Political-economic interests.** Agricultural, conservation, mining, land investment and security concerns often exert undue influence.

The result is that, often heavily influenced by these four factors, One Health is seen in different ways by different people. Too often the ideals of cross-sectoral and multidisciplinary collaboration are overridden by perspectives which are entrenched in particular backgrounds, positions and interests, and reflect long histories of practice that are difficult to overturn.

THE CASE STUDIES

1. TRYPANOSOMIASIS IN ZAMBIA



Testing livestock Photo: Neil Anderson

Trypanosomiasis is caused by parasites transmitted by the tsetse fly. In livestock, the disease is known locally as *nagana* and it causes severe production losses. In people, the disease manifests itself as sleeping sickness, a serious illness which kills in the absence of appropriate treatment. There are thought to be 50,000-70,000 cases per year worldwide, but as it mainly affects remote rural

communities in regions with poor health infrastructures, many cases certainly remain undiagnosed or unreported.

In Southern Africa, conservationists have historically considered the presence of tsetse, and so trypanosomiasis, as a factor protecting natural areas that would otherwise be invaded by people and livestock. By contrast, other development professionals have perceived tsetse as preventing the expansion of productive agriculture and thus as an obstacle to poverty alleviation. They have advocated for tsetse eradication policies, including wildlife culling and bush clearance.

The result has been a plethora of views on trypanosomiasis risk assessment and control approaches, as well as on where funding priorities should lie. This has led to conflict and confusion in policy making between different control measures and the prioritisation of tsetse control in government and aid agency budgets.

2. LASSA FEVER IN SIERRA LEONE

Lassa fever is an acute haemorrhagic infection caused by the Lassa virus and transmitted by a common rodent. It occurs across large areas of West Africa and is endemic in parts of Guinea and Sierra Leone. Estimates of its prevalence vary widely, but annual incidence of infection across the region may be as high as 13 million, with 67,000 fatalities a year. The Lassa virus is considered to have potential for bioterrorism and WHO declared the disease 'notifiable', due to its potential to cause economic and social disruption in epidemic scenarios.

The dominant lens through which the disease has, therefore, been viewed has been a security one. On the one hand, such a perspective has raised awareness and mobilised resources successfully in Sierra Leone, e.g. the funding of a specialised lab at Kenema Government Hospital. On the other, these resources have been limited and have failed to prioritise civilian populations. For example, there was, until recently, very little research into public health measures or the social and ecological dimensions of Lassa fever transmission, especially that surrounding land-use change as a result of agricultural practices and mining, to guide policies.



Lassa lab, Kenema Photo: Catherine Grant

Alongside this dominant perspective, city dwellers in Sierra Leone have historically considered Lassa fever as a disease of ignorant and unsanitary rural dwellers. They have therefore stigmatised vulnerable populations and paid little attention to the alternative understandings of Lassa held by local people and frontline health workers. In these circumstances, and given the poor funding situation and a lack of institutional capacity, there has been only a narrow range of medical interventions. One Health has existed as rhetoric only.

3. RIFT VALLEY FEVER IN KENYA

RVF is a disease transmitted by mosquitoes. It affects domestic livestock, causing abortions and the death of newborns. It also affects people, where it is mainly a mild illness but in 20 per cent of cases is serious, sometimes fatal. Outbreaks are episodic and affected by land use, rainfall and climate change.



Children with cattle Photo: Bernard Bett

For many years RVF was not a high policy priority in East Africa as it occurred sporadically and mainly affected remote, rural pastoralists. However, livestock movement and trade restrictions imposed by Middle Eastern authorities pushed RVF up the policy agenda. This resulted in publication of the Department of Veterinary Services' *Contingency Plan for Rift Valley Fever* in 2010. This had minimal input from the Ministry of

Health. However, this Ministry has since developed a separate plan to cover human health aspects and there are plans to merge the two documents into

one. Moreover, in October 2012 a Zoonotic Disease Unit was established in Kenya, as a joint initiative between the ministries of agriculture and health. This represents One Health progress.

Yet policymakers and public officials have often failed to recognise the perspectives and innovations of pastoralists, whose knowledge of the disease differs from that of settled, irrigation farmers. A collaborative, One Health approach would imply strengthening coordination between pastoralists, community animal health workers and community (human) health workers. In Kenya, One Health has yet to be established at levels closest to the communities at risk compared to upper administrative levels where, for example, ministries have inter-sectoral committees.

4. HENIPAH IN GHANA

Fruit bats have been well established as a reservoir of viruses and a significant potential source of known and emerging disease. However in Ghana, where there are several very big colonies of bats, often existing in close association with people, spillover of Henipah from bats to people has not yet been recorded. This may be because these have not occurred in great numbers, raising medical alarm, and because evidence requires specialised laboratory techniques.

Locally in Ghana, bats are imbued with various qualities, including for some sacredness and for others evil or pollutedness. They are also a source of food and livelihoods for many through the bushmeat trade. Officials have often viewed bats purely in terms of their 'nuisance', while wildlife experts value their conservation role as pollinators. Veterinarians know of bats' role in relation to rabies, but medics have little awareness of their role in



Bats for sale *Photo: Alexandra Mannering*

disease emergence. An understanding of disease risk from bats has until very recently been largely limited to a core group of interested academics. In this context, health policymakers have said that they need more certain evidence of disease transmission before they are willing or able to act. Yet no specialism has taken responsibility and inter-sectoral collaboration, to date, has been very limited. It may, however, be that the 2014 Ebola outbreak triggers a change in this situation and a One Health agenda sees progress as the bat-disease connection becomes more widely known.

IMPLICATIONS FOR DECISION MAKERS

The importance of these observations lies not in understanding which or whose perspective is ‘right’ in any particular context in relation to a particular disease, or in trying to find some kind of ‘middle road’. It lies in recognising the existence of conflicting perspectives; and thus that the responses to disease are often contested. In essence, what some might see as a matter purely for natural scientists, is in fact highly political. This has meant there have been both winners and losers in One Health. If the rhetoric of a more integrated approach is to be realised in practice, it is therefore important that those involved in decision making related to disease emergence and control can:

- **Identify** political and institutional barriers to One Health.
- **Seek out** plural forms of evidence (and recognise the different perspectives they offer).
- **Understand** all the different interpretations of reality on the ground.

This can help to guide policy making and interventions down particular pathways, recasting the way in which disease control is thought about and practised, and offering up alternative, possibly more effective, approaches that have to date been ignored or sidelined. It should also provide a firmer basis for collaboration across institutions and so better realise the aims and ambitions of a One Health approach.

FURTHER READING

STEPS Centre/Dynamic Drivers of Disease in Africa Working Paper Series: Political Economy of Knowledge and Policy (<http://steps-centre.org/publication/dddac-pol-econ-wp-series/>)

Scoones, I (2010) Towards a One World, One Health Approach, in Scoones, I. (ed), *Avian Influenza: Science, Policy and Politics*. London: Earthscan

Grace, D. et al (2013) ‘Zoonoses – From Panic to Planning.’ Rapid Response Briefing. Brighton: IDS (<http://www.ids.ac.uk/publication/zoonoses-from-panic-to-planning>)

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ACKNOWLEDGEMENTS

This briefing was written by Naomi Marks. It was produced by the Dynamic Drivers of Disease in Africa Consortium, NERC project no. NE-J001570-1, funded with support from the Ecosystem Services for Poverty Alleviation Programme (ESPA). The ESPA Programme is funded by the Department for International Development (DFID), the Economic and Social Research Council (ESRC) and the Natural Environment Research Council (NERC), as part of the UK’s Living with Environmental Change Programme (LWEC). The views expressed here are those of the authors and do not necessarily represent those of the funders, the ESPA Programme, the ESPA Directorate or LWEC.

