

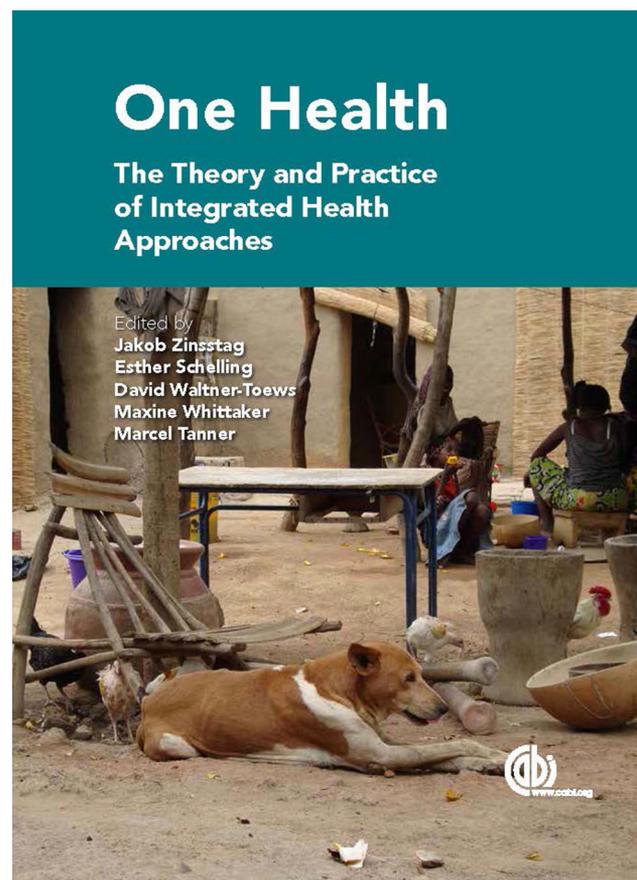
## Book Reviews

### A Healthy Perspective

**“ONE HEALTH. THE THEORY AND PRACTICE OF INTEGRATED HEALTH APPROACHES”**  
EDITED BY: JAKOB ZINSSTAG, ESTHER SCHELLING, DAVID WALTNER-TOEWS, MAXINE WHITTAKER AND MARCEL TANNER

One Health explicitly demands that we consider the health of humans, animals, plants, and environment in an integrated manner, and appreciate that each impacts in some way on the other. By extension, the science would suggest that to understand and deliver optimal health we would need to work across the various sectors and in multidisciplinary teams. The One Health concept has gained considerable momentum in recent years but has proved difficult to operationalize in research, in policy development, and in field activities because of resistance from different sectors and health departments to change the way they traditionally operate. A “silo mentality” and “turf protection” have impeded progress in delivering real value through a One Health approach. Two recent books, *One Health: The Human-Animal-Environment Interfaces in Emerging Infectious Disease* (2013), and *One Health: People, Animals, and the Environment* (2014), have highlighted these issues and sought to provide practical examples of how these problems have been overcome as well as the added values and insights that can be gained from a One Health approach.

The new volume by Zinsstag et al., amplifies this trend and breaks new ground. The book initially outlines the theoretical foundations of the One Health movement (Part 1). It describes methods for assessing animal–human linkages (Part 2) and provides a range of case studies from basic research to those dealing with policy and practice (Part 3). It concludes with a description of various capacity building projects, areas of public engagement, and some



ideas of how One Health will look in the future (Part 4). Each section has chapters written by different authors, each bringing their own experiences, perspective, and insight.

The division of the book into these four areas is concise and provides an excellent roadmap through the various elements that now make up One Health. It also though broadens the concept, highlighting repeatedly, the ecological and environmental components of One Health. The opening series of chapters do much more than provide a simple historical setting. They also provide an in-depth

view of the complexity of the One Health approach and examine how an understanding in one sector can contribute significantly to concerns in another. For example, ecological studies of pastoralists in Chad illustrate the importance and of animal–human nutrition flows, showing that human serum retinol levels are dependent on the milk retinol and beta-carotene content of their cattle. This, in turn, recognizes that those levels in animals are dependent on their nutritional status and the pastures on which they are being raised.

The second section examines various aspects of human–animal linkages and broadens the concept through interesting chapters on One Health economics and on One Health study design. There is an excellent chapter on the role of social science by Maxine Whittaker, which places this science at the center of a genuine one health approach and provides important insights into the contributions social science can make in One Health interventions. In Fiji, for example, examining causal determinants of leptospirosis, including community member ages, occupations, and the organization of social groups, permitted the use of a wider range of interventions based on an appreciation of the socio-cultural context in which the disease occurred.

The third section presents One Health case studies. They include four key diseases, tuberculosis, rabies, leptospirosis, and trypanosomiasis. Rather than focus on the clinical disease, the authors have taken a much broader approach, presenting examples where a One Health approach has proved beneficial and added significant value beyond that of health outcomes. A case in point is the management of both human and animal trypanosomiasis in Uganda, which is now undertaken through a single one health coordinating office. This has enabled continuity of trypanosomiasis control programs in both animals and humans through the periods of Government centralization and then decentralization. It further highlighted the value and savings that can accrue at an operational level by adopting a more unified and coordinated approach to animal and human disease management. Interestingly and importantly, several chapters include plant health. One chapter (Chapter 22) in this section focuses specifically on the integration of plant health, and argues that including plants is often consistent with improved outcomes for people, animals, and the environment. The authors appreciate that active engagement of all this is currently unusual, but frames the issue thoughtfully and cites an

example of Sidai Africa, a donor-funded attempt to improve the quality of advice on animal health through an agro-dealer franchise in Kenya.

The final section has a focus on enabling activities that are crucial to the further development of a multi-sectorial approach spanning research, policy development, and operational activities. It looks at examples from both the developing and developed world and considers government and non-government perspectives. Several chapters look at how to build capacity and further operationalize One Health in academia, in government, and in a regional context. One contribution (Chapter 34. Bunch and Waltner-Toews) specifically tackles the issue of One Health versus Ecohealth and comes down firmly in the belief that an Ecohealth approach provides a fundamentally more sound basis for appreciating, understanding, and managing the complex interactions of the environment, animals, and humans, and the implications for a healthier world.

In conclusion, is this yet another of the One Health books that we have seen recently and does it have anything additional to offer? The editors of this book have a strong background in Ecohealth and the environmental issues relating to One Health. They have brought together an impressive array of authors from across all sectors and the book provides an excellent up-to-date account of the many facets of One Health. However, they have taken the concept of One Health well beyond that of infectious diseases of humans and animals that characterized the two previous One Health books. Despite some broader definitions of One Health, for many it remains in practice, somewhat narrowly focused. This publication provides many rich examples of how animal and human health intrinsically link within the frameworks of social science and ecology. The chapters combine to leave one with an impression that the term Ecohealth perhaps captures more accurately the contents of this book and the approaches that are advocated. Whatever the case, this publication builds and broadens on what has gone before, and perhaps in the last analysis, helps puts One Health in the broader Ecohealth context.

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