



Animal Disease Early Warning System through the One Health Perspective

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INTRODUCTION

Since 2006, the tripartite international organisation FAO-OIE-WHO has been establishing a Global Early Warning System for Major Animal Diseases at international level, which includes Zoonosis (GLEWS), which evolved into GLEWS+. The system additionally conducts timely robust joint risk assessments, the aim of which is to formulate risk management options for health events at the human-animal-ecosystems interface. There is no functional GLEWS+ without a well-developed Animal Disease Early Warning System at the national level. The latter could be defined as: 'The provision of timely and effective information on exceptional disease events detected early in animals that allows all veterinary services to respond rapidly and effectively.' The One Health approach, which is strongly promoted by OIE, FAO and WHO, facilitates a well-established system that is important for the early detection, prevention, control and eradication of animal disease. Such a system makes it possible to also follow the introduction of new diseases step by step as a consequence of two determining factors – climate changes and the displacement of numerous human populations from one geographical area to another.

METHODOLOGY

The multidisciplinary, integrated and holistic approach of One Health is important for the Animal Disease Early Warning System and its disease reporting component at the national level. According to an OIE survey of all 178 national delegates in 2012, disease reporting and food safety were high-priority programme areas for One Health approaches. Therefore, the authors explore published experiences on how the One Health approach impacts the Animal Disease Early Warning System. Social science tools such as situational analysis, benchmarking and best practices, which can be used by veterinary decision-makers, explore the points of reference and application of the One Health approach. Furthermore, these tools contribute to the development of an appropriate national strategy and action plan of the Animal Disease Early Warning System incorporating One Health in the event of climate changes or shifts in new determinants.

RESULTS

The joint activities of the animal or human health professionals have contributed to prioritisation of the disease, better understanding of the critical role of zoonotic diseases, and integration of epidemiological and laboratory data pertaining to different disciplines. Advocacy efforts to make One Health mainstream have built up capacity and contributed to the transfer of knowledge and have raised the level of awareness of national experts from various disciplines, including from central level to local level. The development of institutional structures and a framework for the implementation of One Health has supported the flexibility of joint actions, better engagement and mobilisation of the resources, and formalisation of the commitment between the parties to work together. The critical role of leadership is important in the overall multi-sectoral coordination mechanism.

However, simply focusing on animal or human health without addressing the problem encountered by wildlife populations and/or the environment impedes a well-functioning system. Furthermore, the social science professionals, such as anthropologists, human behavioural scientists and sociologists, need to be invited to play a role in the system interface.

DISCUSSION

The coronavirus disease (COVID-19) pandemic caused by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), first reported in December 2019 and thought to have emerged from an animal source and then spilled over to the human population, brings strengthening of the Animal Disease Early Warning system at national level to the top of the international agenda. Strengthening the Animal Disease Early Warning System can be achieved through institutionalisation of the One Health approach. The strategy, action plan, evaluation and indicators of the Animal Disease Early Warning System incorporating the One Health approach need to be actively developed by the national stakeholders to guarantee efficiency, effectiveness and sustainability. Communication about One Health is important as everyone shares an interest in the specific fields of action in daily life, even professionally and/or socially. All citizens become aware of and responsible for emerging and re-emerging disease events at national and international level.