



Introducing 'One Health' as an overlooked concept in Iran

Hamid Sharifi^{1,2}, Mohammad Karamouzian^{3,4,*}

¹Research Center for Modeling in Health, Institute for Futures Studies in Health, Kerman University of Medical Sciences, Kerman, Iran

²Department of Food Hygiene and Public Health, Faculty of Veterinary Medicine, Shahid Bahonar University of Kerman, Kerman, Iran

³Regional Knowledge Hub and WHO Collaborating Centre for HIV Surveillance, Institute for Futures Studies in Health, Kerman University of Medical Sciences, Kerman, Iran

⁴School of Population and Public Health, Faculty of Medicine, University of British Columbia, Vancouver, BC, Canada

*Correspondence to: Mohammad Karamouzian, Email: karamouzian.m@alumni.ubc.ca

Copyright: © 2014 by Kerman University of Medical Sciences

Citation: Sharifi H, Karamouzian M. Introducing 'One Health' as an overlooked concept in Iran. *Int J Health Policy Manag* 2014; 2: 101–102. doi: 10.15171/ijhpm.2014.24

Received: 1 December 2013, Accepted: 23 January 2014, ePublished: 25 January 2014

Dear Editor,

'One Health' is the "collaborative effort of multiple disciplines—working locally, nationally, and globally—to attain optimal health for people, animals and our environment" (1). The concept of 'One Health' is not as new as it may seem at the first glance, as its pioneer supporters used to live in the 19th century. Looking back in history, Louis Pasteur and Robert Koch's achievements are good examples of practicing 'One Health' (2). More recently in 1940s, efforts of Dr. Steele and his peers around the globe in developing the first 'Veterinary Public Health' program made rapid advances in the control and prevention of zoonotic diseases, both in the United States and globally (2). The interaction of humankind, environment, and animals has led to a dynamic through which the health of these groups is interrelated.

The scope of 'One Health' is remarkable, wide, and rapidly growing. It is a pity that the way we treat the environment has lessened its health. This contamination and pollution would lead to creating a favorable setting for micro-organisms and expansion of infectious diseases damaging the health of both animals and humans (3). Of around 1400 infectious diseases recognized in humans, almost 60% are due to multi-host pathogens moving across species lines (4). Furthermore, around 75% of new emerging and re-emerging human infectious diseases in the last 30 years have been zoonotic (5). Several examples could address the importance of veterinary medicine in increasing the health of humans; from the spread of AIDS-related infections (i.e. tuberculosis) to the outbreaks of Severe Acute Respiratory Syndrome (SARS), avian flu, monkey pox, and Crimean-Congo Hemorrhagic Fever (CCHF) around the globe (6). All in all, the complete health of a community would only be achieved by calling for an integrated approach addressing the health of not only human and animals, but also and the ecosystem they reside in. The health of these three groups are highly inter-connected and should not be separated (7).

Despite the growing interdependence of humans with animals and their products and in turn the probable threats against our health, veterinary and human medicines are still viewed

as separate units and the evident links between them are frequently ignored in most of the developing countries including Iran. Although it has been a while since the World Health Organization (WHO) promoted the concept of Intersectoral Action for Health (IAH) as "a recognised relationship between part or parts of the health sector with parts of another sector which has been formed to take action on an issue to achieve health outcomes (or intermediate health outcomes) in a way that is more effective, efficient or sustainable than could be achieved by the health sector acting alone", this strategy is not yet operationalized in developing countries, including Iran (8). Another widely known but neglected concept could be the Health in All Policies (HiAP) which is "an approach to public policies across sectors that systematically takes into account the health and health systems implications of decisions, seeks synergies and avoids harmful health impacts, in order to improve population health and health equity" (9). Both these overlooked concepts highlight the importance of taking the 'One Health' approach in improving the overall health of our communities.

In Iran or similar settings, while the Ministry of Health needs inputs from several other sectors such as Ministry of Agriculture—which is in charge of the Iranian Veterinary Organization—and Ministry of Labour and Social Welfare, those sectors may not be willing to or even required to share such a responsibility to improve health. Conversely, at the end of the day, it is the health sector that is mainly expected to provide health for the general public.

Overall, we need to adopt an integrated and holistic approach when it comes to health and prevention of threats from crossing fields. It is now time to introduce the 'One Health' approach to the curriculum of the medical, veterinary, and public health schools throughout the country. Nonetheless, this strategic need requires proper vision and leadership. Such recommendations can only be implemented with the support of all governmental related sectors. In other words, the responsibility of taking the action sits on the shoulders of multiple sectors in the government and is not limited to healthcare professionals and health policy-makers. It is time to set off intersectoral studies to help develop best practices and appropriate models for the context of Iran. All related sectors in the government should decide on their future role in approaching 'One Health' and help reach the best possible health for our people, animals, and environment.

Ethical issues

Not applicable.

Competing interests

The authors declare that they have no competing interests.

Authors' contributions

HS and MK both contributed to the conceptualization of the paper. MK drafted the manuscript and both HS and MK contributed to the revisions and editing.

References

1. Arámbulo P 3rd. Veterinary public health in the age of "one health". *J Am Vet Med Assoc* 2011; 239: 48–9.
2. King LJ, Anderson LR, Blackmore CG, Blackwell MJ, Lautner EA, Marcus LC, *et al.* Executive summary of the AVMA one health initiative task force report. *J Am Vet Med Assoc* 2008; 233: 259–61.
3. O'Brien M. Our Stolen Future: Are We Threatening Our Fertility, Intelligence, and Survival?—A Scientific Detective Story. *Environment: Science and Policy for Sustainable Development* 1997; 39: 26.
4. Osburn B, Scott C, Gibbs P. One world—one medicine—one health: Emerging veterinary challenges and opportunities. *Rev Sci Tech* 2009; 28: 481–6.
5. Taylor LH, Latham SM, Mark E. Risk factors for human disease emergence. *Philos Trans R Soc Lond B Biol Sci* 2001; 356: 983–9.
6. Loscher T, Prufer-Kramer L. Emerging and re-emerging infectious diseases. In: Kramer A, Kretzchmar M, Krickenberg K, editors. *Modern Infectious Disease Epidemiology: Concepts, Methods, Mathematical Models, and Public Health*. New York: Springer; 2010. p. 39–67.
7. Zinsstag J, Schelling E, Waltner-Toews D, Tanner M. From "one medicine" to "one health" and systemic approaches to health and well-being. *Prev Vet Med* 2011; 101: 148–56.
8. Adeleye OA, Ofili AN. Strengthening intersectoral collaboration for primary health care in developing countries: can the health sector play broader roles? *J Environ Public Health* 2010; 2010: 272896.
9. Leppo K, Ollila E, Pena S, Wismar M, Cook S. *Health in All Policies—Seizing opportunities, implementing policies*. Helsinki : Ministry of Social Affairs and Health; 2013.

Archive of SID