

Student Paper Communication étudiante

One Health: From theory to practice

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Abstract – One Health approaches to human and veterinary medicine are critical to professionals addressing global issues of food security and disease prevention. However, we have yet to develop a sufficient strategy to translate our theoretical understanding to practical application. This paper will explore the current shortcomings of One Health, within both the medical and veterinary communities, and highlight solutions to overcome these challenges.

Résumé – Une santé : De la théorie à la pratique. Les approches d'Une santé face à la médecine humaine et vétérinaire sont cruciales pour permettre aux professionnels d'aborder les enjeux mondiaux en matière de sécurité alimentaire et de prévention des maladies. Cependant, nous n'avons pas encore mis au point une stratégie suffisante afin de trouver des applications pratiques pour notre compréhension théorique. Cet article explore les défauts actuels d'Une santé, dans les collectivités médicale et vétérinaire, et signale des solutions pour surmonter ces défis.

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The American Veterinary Medical Association defines One Health as “the collaborative effort of multiple disciplines — working locally, nationally, and globally to attain optimal health for people, animals and the environment” (1). When one considers the magnitude and complexity of global issues surrounding disease and food, this approach has the potential to provide the creative, impactful, and sustainable solutions required. However, One Health is also one of the most misused terms in our profession. It is a concept whose rise in popularity has been compounded by a lack of understanding, which has limited its utility and application to practice. Therefore, One Health is not being effectively incorporated into the medical and veterinary professions.

A massive movement towards the One Health approach already exists, as evidenced by the volume of resources (human and financial) being placed into various academic and developmental projects. However, incorporation implies that it is embedded into the core of the profession and being utilized by all or most of its members instead of a small select group

of motivated individuals. With the majority of graduates pursuing opportunities in small animal practice, there is a large population of emerging professionals for whom the One Health approach is not yet an integral part of practice.

There is a need, therefore, to educate professionals about the role One Health can play in all veterinary careers. This universal buy-in is imperative to bringing about the large-scale changes surrounding our approach to disease and health.

Health was once defined as simply the absence of disease. Today, the World Health Organization now recognizes Health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (2). The many layers of this definition suggest that interactions between one living thing and another, even if they do not generate a disease state, can have implications for the health of the individual or population, or both. This broader understanding of health recognizes that evaluating and treating disease has implications both for the individual and the population, and thus defines the One Health approach.

In order to appreciate One Health, one must understand populations and how they interact with each other. In society, population is synonymous with large groups of people. A more refined approach recognizes that population can be used to group individuals according to any number of different factors. It is not simply a group of one species but can be used to describe and differentiate smaller groups that are related in some way such as families or communities. This distinction is an important one in the context of One Health. For example, an animal such as a dog could be one individual, a part of a family, or even a part of a community. Therefore, it is better to use “population” in the context of relationships rather than simply quantity.

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The second piece of the One Health approach is inter-professional communication. Compartmentalization of knowledge inhibits progress. In essence, this means that only by collaborative efforts can we properly analyze and address the complex, multi-faceted health problems that society faces today; therefore, the strength of One Health lies in preventative not reactive medicine. Collaborative, proactive approaches to combating disease, however, are often not applied due to the current disconnect between the veterinary and medical professions. There is a need for the creation of effective and efficient communication channels to engage with stakeholders across different disciplines and professions.

To summarize, One Health is about the implications of medicine for not only the individual but also for all populations. This approach is only as useful as the communication framework that supports it and is most effective when used to find creative, impactful, sustainable, and proactive solutions to disease and maintenance of health. Given the potential of this approach for helping combat current and future public health issues, how best does one get the veterinary and medical communities to utilize it? In my opinion, the answer is by embedding One Health into current veterinary and medical curricula and continuing professional development.

One Health employs many transferable skills such as teamwork, critical analysis, and strong oral and written communication. It is not a single course, topic, technical skill, or lecture; however, that is the current manner in which the One Health concept is often delivered. This method of delivery makes it extremely challenging for students to recognize the opportunities to integrate One Health into their own practice of medicine. What can be done, therefore, is evaluation of the opportunities to better illustrate, embed, and develop the components of One Health within each and every topic taught. This should address some of the misconceptions surrounding the term, in particular, the belief that One Health approaches are species-specific. The result would be students whose approach to problem solving is founded on components of the One Health concept.

There are also opportunities to build capacity for One Health understanding by current practitioners. While established avenues, such as conferences and other continuing education forums, can cater to individuals most interested in the concept, One Health may be presented to a larger group of health professionals through use of the Internet. I believe this could be done by the creation of an online network highlighted by a problem-based discussion forum. An example of

this approach is the Technology, Entertainment, Design (TED) Conversations forum which connects companies, professionals, non-government organizations (NGOs), and the public through issues of importance. Ideas or questions are posted and individuals openly debate the topics and possible solutions to some of the planet's most pressing challenges. It is one example of the power of collaboration and connectivity that the Internet has granted the present generation.

Online networks present a remarkable opportunity to connect individuals from a variety of backgrounds in an interactive and convenient manner. More importantly, the nature of this approach stimulates conversation. The multiple sources of input from varying perspectives force us to re-evaluate our position on issues by pushing our own boundaries of understanding. These are but a few examples of how the components required for One Health thinking can be provided through the creation of such a network.

While such a forum would likely produce novel approaches to help solve complex health problems, it is the process which is most important; the collaborative nature of discussing health in a transparent and inviting manner could transcend political, academic, and geographic limitations to provide an opportunity for people to apply the core concepts of One Health.

Worldwide, various industries are beginning to harness the power of collaboration. It is time for the veterinary and medical communities to make a more serious commitment to synergistically utilizing our vast network of experienced and innovative professionals and the tools they possess. By embedding the concept of One Health into our respective curricula, and using the Internet as a means to connect our professions, we will be able to produce a generation of professionals who are capable of providing the multi-disciplinary solutions that tomorrow's health problems are going to require.

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