

## Executive summary of the AVMA One Health Initiative Task Force report

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### **Preface and Acknowledgments**

It has been a special privilege to serve as the Chair of the One Health Initiative Task Force (OHITF). The concept of One Health is not new and perhaps has even enjoyed stronger endorsement and support in past decades prior to the advent of clinical specialization in human and veterinary medicine. Achieving the end point of One Health is truly one of the critical challenges facing humankind today.

The task force is acutely aware of the heroes of the past such as William Osler and Rudolf Virchow, the Father of Comparative Pathology. Even the seminal scientific work of both Louis Pasteur and Robert Koch demonstrated the importance of comparative medicine and biomedical research. Both were early practitioners of One Health and their findings represented enormous medical breakthroughs of the 19th century. We also remember the early efforts of Rachel Carson,<sup>1</sup> who raised an awakening of an entire generation to environmental issues, leading to an appreciation of the health of the environment as an integral component to the One Health concept.

Pioneers in this field include former Assistant Surgeon General James Steele, who epitomizes One Health. Dr. Steele organized and developed the first Veterinary

Public Health program with the Center for Disease Control (CDC) in the 1940s, and was responsible for the official inclusion of veterinarians into the US Public Health Service, beginning in 1947. It was the groundbreaking work of Dr. Steele, partnering with physicians and other health professionals, which led to rapid advances in the control and prevention of zoonotic diseases both in the United States and internationally.

However, for me personally, and for many members of the task force, we fondly remember the pioneering and visionary efforts of Dr. Calvin Schwabe. We were influenced and “converted” to One Health by Dr. Schwabe, who spent a lifetime practicing and teaching the principles of One Health. The task force members wish to honor Dr. Schwabe by dedicating the full report to him.

The American Veterinary Medical Association (AVMA), and this task force in particular, have been well served by committed volunteers who give their time and energy to work on important issues to improve and advance the veterinary profession. The American Medical Association (AMA) and American Public Health Association (APHA), as well as other professional organizations, operate similarly and are also dependent on volunteers. I commend these dedicated professionals and salute them for their hard work and aspirations to make a difference in the lives of the people and animals that we serve.

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I am especially appreciative and thank my fellow task force members. The OHITF members have added remarkable insights, wisdom, and intellect into this report and to our deliberations. The group has formed a strong camaraderie and has enthusiastically devoted themselves to the cause of One Health today and for the future.

In addition, the AVMA is fortunate to have a talented, energetic, and superb staff. The entire task force wishes to both acknowledge and thank Drs. Lynne White-Shim, Heather Case, Elizabeth Curry-

Galvin, and Ms. Ellen Pietka, all of whom gave tirelessly to supporting our task force and this project. Other staff members, including Dr. Janis Audin, J.B. Hancock, and Sharon Curtis Granskog, have also added real value to our work. Finally, I would like to thank Dr. Roger Mahr, who championed the One Health concept and greatly helped elevate it as part of the AVMA's agenda.

Lonnie King, DVM, MS, MPA, DACVPM  
Chair, OHITF

The convergence of people, animals, and our environment has created a new dynamic in which the health of each group is inextricably interconnected. The challenges associated with this dynamic are demanding, profound, and unprecedented. While the demand for animal-based protein is expected to increase by 50% by 2020,<sup>2</sup> animal populations are under heightened pressure to survive, and further loss of biodiversity is highly probable.

On top of that, of the 1,461 diseases now recognized in humans, approximately 60% are caused by multi-host pathogens characterized by their movement across species lines.<sup>3</sup> And, over the past 3 decades, approximately 75% of new emerging human infectious diseases have been zoonotic.<sup>4</sup> Our increasing interdependence with animals and their products may well be the single most critical risk factor to our health and well-being with regard to infectious diseases.

There is a growing concern that the world's latest generation could be the first in history to experience a reduction in life expectancy and health in general. Yet, veterinary and human medicines are considered separate entities and the obvious links between them frequently ignored. According to the KPMG study "The Current and Future Market for Veterinarians and Veterinary Medicine in the United States,"<sup>5</sup> published in May of 1999, "our traditional approaches and past requisite skills and levels of knowledge may not be commensurate with the rapid changes and new demands of food-animal industries and the shifting requirements needed for the corporate and public opportunities of the future, including public health, biomedical research, and the global food system."

**The need for a holistic, collaborative approach—**One strategy to better understand and address the contemporary health issues created by the convergence of human, animal, and environmental domains is the concept of One Health. Although the concept of One Health is not new—the theory was supported by William Osler and Rudolf Virchow, the Father of Comparative Pathology, and re-articulated in Calvin Schwabe's *Veterinary Medicine and Human Health*<sup>6</sup> in 1984—our increasing interdependence with animals and their products has spurred the human medical and veterinary professions to readdress such an approach. This approach would encourage the collaborative efforts of multiple disciplines working locally, nationally, and globally, to attain optimal health for people, animals, and our environment.

**The benefits of One Health—**The benefits of a One Health approach include:

- Improving animal and human health globally through collaboration among all the health sciences, especially between the veterinary and human medical professions, to address critical needs
- Meeting new global challenges head-on through collaboration among multiple professions—veterinary medicine, human medicine, environmental health, wildlife health, and public health
- Developing centers of excellence for education and training in specific areas through enhanced collaboration among colleges and schools of veterinary medicine, human medicine, and public health
- Increasing professional opportunities for veterinarians
- Adding to our scientific knowledge to create innovative programs to improve health

**The One Health Initiative Task Force—**On April 14, 2007, the AVMA Executive Board took official action to establish an One Health Initiative by approving a recommendation by then-president Dr. Roger K. Mahr to establish a OHITF. The purpose of the task force was to study the feasibility of a campaign to facilitate collaboration and cooperation among health science professions, academic institutions, governmental agencies, and industries to help with the assessment, treatment, and prevention of cross-species disease transmission and mutually prevalent, but non-transmitted, human and animal diseases, and medical conditions.

The OHITF, comprising 13 visionary individuals and communicators, was charged by the AVMA Executive Board with the task of defining "One Health," and providing recommendations and strategic actions that would support and expand the concept across the health professions. Just 2 months later, the AMA House of Delegates followed suit, with unanimous approval of a resolution in support of One Health.

**Partnership is critical to success—**The veterinary profession must implement solutions to the critical workforce challenges in collaboration with multiple professions, including public health, human medicine, bio-engineering, animal science, environmental science, and wildlife. By working together, more can be accomplished to improve health worldwide, and the veterinary medical profession has the responsibility to assume a major leadership role in that effort. One Health calls for the collaborative efforts of multiple

disciplines working locally, nationally, and globally to attain optimal health for people, animals, and our environment.

**OHITF recommendations**—The following recommendations, which are not listed in order of priority, were based on the findings of the OHITF both during their meetings, and in the follow-up sessions held by the working groups. While the AVMA and the AMA plan to take a leadership role in this effort, the success of these recommendations will depend heavily on the collaboration of various health science professions, academic institutions, governmental agencies, and private industries.

- **Create and fund a One Health Joint Steering Committee** to begin the execution of the other recommendations and associated actions.
- **Complete a One Health Proposal for Donors as well as a Business Plan** and continue the process of engaging potential donors and sponsors.
- **Create and implement initial components of a One Health Communication Effort.**
- **Engage an all-inclusive communications firm** to develop and implement a communications plan and coordinate ongoing media relations, public relations, publicity, marketing, and advertising.
- **Plan a study on One Health to be conducted by the National Academy of Sciences** and secure the necessary funding to underwrite this effort.
- **Develop, charter, and form a National One Health Commission** (to replace the steering committee) and recruit full-time staff in key positions to support the goals and mission of the commission and complete the recommendations within the full report.
- **Appoint a national/global One Health Advisory Team** to help support the National One Health Commission and give it direction, counsel, and wisdom.
- **Plan and hold a One Health National Summit.**
- **Convene several panels and a national meeting to establish a national research agenda** for One Health.
- **Work toward the inclusion of key One Health outcomes for listing in the strategies for Healthy People 2020 and Healthy Animals 2010.**
- **Inform, engage, and solicit the support of medical, veterinary medical, and public health students and their respective organizations.**
- **Create a guiding coalition of liaisons, champions, and key supporters** to promote the One Health concept.

**Call to action**—We now stand at the precipice of health care transformation where disease prevention and health promotion in people, animals, and our environment have become a critical strategic need. The most pressing need for a transformation of this magnitude is almost always vision and leadership. The OHITF recommendations can serve as an action plan to guide individuals and professions during the process of change. But, while the AVMA and AMA are eager and willing to take the lead on this effort, we cannot succeed without the support of others.

Decisions made today impact events of tomorrow. We live in a world in which the difference between what can be imagined and what can be accomplished has never been smaller. Veterinary medicine is in a unique position. Veterinarians are well grounded in population health, comparative medicine, and preventive medicine. The profession has the potential to help lead the efforts of One Health. However, this is not a given, and a reluctance by our profession or by the other health sciences to take this step will, without question, be a lost opportunity that will be picked up by other groups.

The responsibility sits clearly on our shoulders. The human medical profession is faced with the same dilemma—it also must decide on its future role in One Health. Every profession has its defining moments—special points in time when talented individuals work cooperatively to influence the course of events for generations to come. For veterinary medicine and the other health sciences, that time is now.

Our recommendations will only be fulfilled if action is taken, resources identified and committed, and leadership supported. We urge you to join us in supporting the One Health Initiative.

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View the full OHITF report at [www.avma.org/onehealth/](http://www.avma.org/onehealth/).