



I first heard the term *One Health* at the NAVC Program Committee meeting in 2009. After Dr. Hayley Murphy, our zoological medicine program chair, explained the concept, I thought it would be a good addition to the NAVC Conference program. I just wish that more of our colleagues in the medical profession knew as much about zoonotic disease as we do. I am sure that many readers have favorite stories; mine is when my sister was told by the family doctor to get rid of her cat because my nephew had pinworms.

Our inaugural One Health meeting was well attended and even had a courtesy visit from the president of the American Medical Association. At the NAVC Conference 2012, we added a lab in One Health that also proved to be popular.

I was thus quite well versed on the importance of One Health when I became vice president of the WSAVA and learned about the excellent work of the One Health Committee under the leadership of Professor Michael Day. It was then a natural step for me to invite Professor Day to write an article on One Health for *Clinician's Brief*.

Colin F. Burrows  
*Editor in Chief*

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# One Health: Global Perspective

Over the past decade One Health has become a buzzword in veterinary medicine. But what exactly is One Health, and how does it impact veterinary practice?

While One Health has no single, universally accepted definition, the broad concept proposes close alignment and active collaboration in global disease management between human and veterinary medicine. One Health's primary focus is zoonotic infectious disease, recognizing that most emerging or reemerging human infections will arise in domestic or wild animals before crossing the species barrier to humans.

One key factor impacting disease emergence and interspecies transfer is environmental health, which has become an integral part of the One Health platform. Among other factors, environmental health includes climate change and altered land management (eg, deforestation, urbanization), which may encourage emergence of infections, alter geographic range of arthropod vectors of pathogens, or encourage closer contact between human and domestic or wild animal populations. One Health solutions to control and prevent emergent infections therefore rely on close collaboration and coordinated activity between medical and veterinary clinicians, public health officials, ecologists, environmentalists, and research scientists in academia and industry.

## IS ONE HEALTH WORKING?

The One Health concept has been firmly embraced by several prominent political associations and organizations (eg, US One Health Commission, World Organisation for Animal Health [OIE], World Health Organization [WHO], Food and Agriculture Organization [FAO]). In

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2011, several hundred delegates attended the 1st International One Health Conference in Melbourne, Australia; a second conference is currently in planning. Many local One Health initiatives are flourishing—notably the introduction of One Health graduate programs at several US and UK universities. The NAVC has also

## WHAT ABOUT COMPANION ANIMALS?

In 2010 the World Small Animal Veterinary Association (WSAVA) established a One Health Committee to assume leadership and ensure representation of companion animal practitioners at the global One Health table. From the outset the veterinary focus on One Health involved domestic and wild animal species known to be significant sources of infectious disease.

No better examples exist than recent global influenza outbreaks involving virus emergence from birds and pigs or severe acute respiratory syndrome coronavirus from the civet cat, in which controlling epidemics necessitated managing human disease and infectious animal reservoirs. However, those who primarily work with companion animals have remained on One Health's periphery, despite the broad range of known zoonoses (eg, rabies, visceral leishmaniasis) affecting our patients and the gradual extension of our care for exotic animals (eg, amphibians, arthropods, fish, pocket pets, backyard poultry).

## WHAT ARE THE WSAVA & THE WSAVA ONE HEALTH COMMITTEE?

As the global representative body of more than 160,000 companion animal practitioners, WSAVA currently serves 90 national associations and specialist groups in 75 developed and developing countries. In 2011, the AVMA and CVMA (Canadian Veterinary Medical Association) joined AAHA as participants in the WSAVA global family. In addition to its annual congress, the WSAVA provides continuing education programs in developing countries and generates world-leading scientific advances in companion animal medicine and surgery by supporting numerous standardization and scientific committees, including the WSAVA One Health Committee.

The One Health Committee has a simple mission statement: *To ensure the prominence of the small companion animal–human interface in the*



Members of the WSAVA One Health Committee during the CDC meeting, Atlanta, Georgia. (Far back, L–R) Jolle Kirpensteijn, Ed Breitschwerdt, Sarah Cleaveland, Gregg Takashima, Chand Khanna; (Front, L–R) Jennifer McQuiston, Carol Rubin, Michael J. Day, Clarisa Palatnik-de-Sousa, Umesh Karkare. Not Pictured: Thijs Kuiken, Michael Lappin, Alex Thiermann

provided leadership in One Health by fostering a One Health lecture stream and workshop to demonstrate how One Health principles extend to veterinary practice.

Those active in the field recognize the enthusiasm with which the veterinary profession has embraced the One Health concept, and this is hardly surprising given the broad scientific nature of our training and work. However, our colleagues in human medicine have generally been less receptive, and it may be some time before the dream of truly collaborative healthcare becomes a reality.

*global One Health agenda*. The committee promotes three aspects of One Health:

1. The value of the human–companion animal bond
2. The control of zoonotic infectious diseases of companion animals through education and effective surveillance
3. The value of comparative and translational clinical research extending observations made in the study of spontaneously arising disease in companion animals to benefit humans with the equivalent disorders

The committee has engaged with organizations such as the OIE, WHO, the Centers for Disease Control and Prevention (CDC), and the National Institutes of Health (NIH). Individual committee members have significant scientific expertise in the three areas of remit. The committee is currently almost midway through a three-year program, which has produced a series

of scientific papers (including a position paper on the need for global surveillance for companion animal zoonoses), has established awards to promote companion animal One Health, and is currently exploring initiatives in rabies control in African and Asian communities in which the disease is endemic.

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See **Aids & Resources**, back page, for references & suggested readings.



Information on the WSAVA One Health Committee go to [wsava.org](http://wsava.org)

### Members of the WSAVA One Health Committee

Committee Member	Affiliation	Expertise
Michael J. Day (Chairman)	University of Bristol	Pathology and immunology
Ed Breitschwerdt	North Carolina State University	Small animal infectious disease
Sarah Cleaveland	University of Glasgow	Rabies epidemiology and control
Umesh Karkare	Happy Tails Veterinary Hospital, India	Practitioner representative with expertise in rabies control
Chand Khanna	National Cancer Institute	Comparative oncology
Jolle Kirpensteijn	Utrecht University, The Netherlands	Surgery and comparative oncology
Thijs Kuiken	Erasmus Medical Centre, The Netherlands	Influenza virus infection
Michael Lappin	Colorado State University	Small animal infectious disease
Jennifer McQuiston	CDC	Rickettsial zoonoses branch, NCEZID
Clarisa Palatnik-de-Sousa	Federal University of Rio de Janeiro, Brazil	Leishmaniosis epidemiology and control
Carol Rubin	CDC	Associate director for zoonoses and One Health, NCEZID
Gregg Takashima	The Parkway Veterinary Hospital, Oregon	Practitioner representative with expertise in the human–companion animal bond
Alex Thiermann	OIE, France	President of the Terrestrial Animal Health Code, OIE

CDC = Centers for Disease Control and Prevention, NCEZID = National Centers for Emerging Zoonotic Infectious Diseases, OIE = World Organisation for Animal Health