



North Carolina Stakeholders Form One Health Collaborative

Summer 2010

What is the term 'One Health' all about?

The working concept of 'One Health', refers to the interconnectedness of human, animal (wild and domestic) and environmental health. Over the past decade, this philosophy has gained increasing momentum in scientific communities as our knowledge base has expanded and overlaps in human, animal and environmental health have become more apparent.

This cross-discipline approach gained national attention in the last four years by the joining of the American Veterinary Medical Association (AVMA), the American Medical Association (AMA) and other organizations in creation of a national One Health Initiative Task force that evolved in 2009 into the National One Health Commission. Simultaneously, a group of One Health minded Physicians and Veterinarians, Dr.s Kahn, Kaplan, Monath and Woodall, developed a One Health Initiative website that promotes cross discipline collaborations and news dissemination. There is much to be done to educate and inform ourselves across health professions.

North Carolina's One Health History

The state's efforts in One Health began at least 20 years ago. In the early 1990's, the North Carolina Department of Agriculture and Consumer Services (NCDA&CS) championed a statewide geographic information system to address domestic animal health issues. This health-oriented information structure evolved into the NC Multi-Hazard Threat Database, www.ncmhtd.com, in which state agencies collaborate to protect health across animals and humans. Then, following hurricanes Fran (1996) and Floyd (1999), NCDA&CS, NC Emergency Management, NCSU Cooperative Extension Service, NCSU College of Veterinary Medicine, and private veterinarians established the State Animal Response Team (SART) to assist with human and animal protection and movement during a disaster. Soon after, NC SART became a national FEMA model for other states' efforts.

By 2000, an increasing recognition of the ties between human, animal, and ecosystem health led

to the first annual North Carolina symposium focused on these issues. Co-sponsored by leaders in state government and academia, in 2003 it became the North Carolina One Medicine Symposium. Every December this international meeting consistently attracts over 300 participants, including health workers, public safety professionals, and policy makers, all working at the intersection of animal, human, and environmental health. www.onemedicinenc.org

The NC Bio-Preparedness Collaborative (NCB-Prepared), a partnership of UNC-CH, NCSU, SAS Institute, NC Public Health and others, was also launched in 2010. This integrative technology effort responds to needs for faster recognition and response to biological threats. It enhances both human and animal bio-surveillance for timely information integration, decision making, and dissemination. NCB-Prepared eventually plans for implementation on a regional or national level. <http://ncb-prepared.org>.

The North Carolina One Health Collaborative

In April, 2010, One Health stakeholders from both public and private North Carolina organizations established themselves as the North Carolina One Health Collaborative. Partnering with the local, non-profit Triangle Global Health Consortium (TGHC), the mission of the new One Health Collaborative is to promote and improve the health and well-being of all species by enhancing collaboration between physicians, veterinarians, researchers and other local / global health professionals, and by increasing public awareness of the interconnectedness of people, animals and the environment.

Sharing Education in One Health

Regional academic leadership in One Health is strong. Both Duke and UNC-CH have medical schools and large public health institutes with multiple graduate programs in many aspects of human health, translational medicine, and environmental health. Programs marrying veterinary and human health education across the

NCSU College of Veterinary Medicine (CVM) and UNC-Chapel Hill have been ongoing since the early 1990s. The NCSU-CVM also houses a graduate concentration in Population Medicine, offers a Master's Degree in Veterinary Public Health and its students all receive disaster response training prior to graduation.

Students have also significantly helped shape One Health in the state. In 2008 four public health-minded veterinary students developed an informal interdisciplinary forum that brought together like-minded medical, veterinary and graduate students and professionals from Duke University, NCSU, and UNC-CH. With faculty support they formed the One Health Intellectual Exchange Group (IEG). They met monthly to interact with established academic, governmental and private sector professionals and researchers from diverse disciplines to discuss the coalescence of their many health-related efforts.

In summer 2010, the North Carolina One Health Collaborative adopted the existing, fledgling, One Health IEG as its official discussion forum, and opted to create a parallel course cross-listed between the three represented founding universities. First offered in January 2011, this course will continue to function as the original IEG, i.e. open to professionals from the community, but participating students who wish to may gain course credits by completing group tasks on current cross-discipline issues. This parallel course credit option will enhance local networking opportunities for established Triangle organization professionals and for future professionals.

Additional Readings:

Can J Vet Res 1986; 50: 145-153. **Bull Semen and Muscle ATP: Some Evidence of the Dawn of Medical Science in Ancient Egypt**, C.W. Schwabe (often seen as the Father of the concept of One Health).

JAVMA, Vol 233, No. 2, July 15, 2008, p 259. **Executive summary of the AVMA One Health Initiative Task Force Report**, Lonnie J. King, DVM,MS, MPA, DACVPM; Larry R. Anderson, DVM, MD; Carina G. Blackmore, DVM, PhD; Michael J. Blackwell, DVM, MPH; Elizabeth A. Lautner, DVM, MS; Leonard C. Marcus, VMD, MD; Travis E. Meyer, BS; Thomas P. Monath, MD; James E. Nave, DVM; Joerg Ohle; Marguerite Pappaioanou, DVM, MPVM, PhD, DACVPM; Justin Sobota, MS, DVM; William S. Stokes, DVM, DACLAM; Ronald M. Davis, MD; Jay H. Glasser, PhD; Roger K. Mahr, DVM.

Laboratory Investigation (2008) 88, 18–26, **One medicine—one pathology': are veterinary and human pathology prepared?** Robert D Cardiff, Jerrold M Ward, Stephen W Barthold

Front Ecol Environ 2010; doi:10.1890/090159, **Integrating a One Health approach in education to address global health and sustainability challenges** Meredith A Barrett¹, Timothy A Bouley, Aaron H Stoertz, and Rosemary W Stoertz

Summary

One Health, as a concept and a way of doing business, has a long and productive history both nationally and in North Carolina. The formation of the new North Carolina One Health Collaborative brings stronger cross-discipline leadership and interactions to the already richly diverse arenas of One Health research, education, and practice in our state. It is hoped that the philosophy of sharing information between entities that don't often get to interact directly will become even more integral in the human, veterinary and environmental health communities.

You can learn more about the North Carolina One Health Collaborative at <http://nconehealthcollaborative.weebly.com/index.html> and www.triangleglobalhealth.ning.com/group/. There you will be able to learn about the One Health Collaborative steering committee members, One Health IEG sessions and other events. You can also get on the One Health IEG listserv by contacting Liz Selisker liz_selisker@ncsu.edu. For more One Health background at the National Level please visit:

The One Health Commission website
www.onehealthcommission.org/objective.html

The One Health Initiative website
www.onehealthinitiative.com/supporters.php

The Florida One Health Newsletter
www.onehealthinitiative.com/newsletter.php

