Animals, humans, One Health
AS I SEE IT

By Roger K. Mahr and Robert E. Johnson

Despite the nation’s current economic woes, Americans can be thankful for a quality of life enjoyed by few others around the globe — access to housing for their families and pets, ready availability of safe food, clean water, and quality health care.

But more frequently, next to the economic news, are headlines containing these words: eastern equine encephalitis, HIV, West Nile virus, and avian influenza. Over the past three decades, approximately 75 percent of such emerging human infectious diseases worldwide have originated in animals, mostly wildlife. Poor environmental health may affect human and animal health through contamination, pollution, and conditions conducive to the emergence and survival of new infectious agents.

Given the rise of antibiotic resistance, a holistic approach and a better understanding of resistance related to the use of antibiotic drugs are needed. The spread of food and water-borne diseases, such as the recent salmonella and coliform contaminations, threatens human and animal health around the world. Many chronic diseases, including cancer, obesity, and diabetes, are common to both people and animals.

These complex challenges, driven by globalization, call for a dramatic, unified response. The American Veterinary Medical Association (AVMA) and American Medical Association committed to this call for leadership by establishing dialogue and actions to enhance collaboration between the human and veterinary medical professions. Those “across the aisle” conversations led to the creation of the One Health Initiative Task Force, whose efforts, supported by the Rockefeller Foundation, were transitioned to the formation of the One Health Commission (OHC) in 2009.

In the mid-1800s, German scientist Rudolph Virchow said, “Between animal and human medicine there is no dividing line — nor should there be.” Virchow studied diseased tissues of animals and related his findings to those he found in people and, ultimately, was recognized as the father of comparative pathology.

The integrated One Health approach is critically important to a healthy and prosperous future. One of the primary goals for the OHC is to facilitate and promote vital projects that give us the opportunity to transform the way human, animal, and environmental health-related disciplines and institutions work together.

No other organization is better suited than the OHC to become the go-to resource for all things One Health. No other region offers a better One Health collaborative environment to illustrate the importance and value of the One Health approach than the greater Worcester area. It’s all right here.

One of a handful of locations in the country with a concentration of teaching, learning and research infrastructure across the health sciences, Central Massachusetts is bursting with opportunities for meaningful collaboration. Greater Worcester has made great strides in improving the health of people, animals, and our environment and is poised to accomplish much more.

While UMass Medical School, the Cummings School of Veterinary Medicine at Tufts University, Massachusetts College of Pharmacy and Health Sciences, WPI, and Becker College cover the bases in undergraduate, M.D., DVM, and Ph.D. education in multiple health-related areas, there is not a local institution, or single discipline, that does not have the potential to make a positive impact on our health through the integrated, One Health approach.

Integration creates energy that propels learning. For example, the integrated approach that the faculty at Becker College take in teaching animal studies, nursing, and other health science disciplines drives home the impact that one field has
upon another and sparks excitement among students.

When Becker pre-veterinary students work with both animals and people, when nursing students develop fitness programs for public schools and advocate for humanitarian aid, learning and understanding take place on a deeper level.

Becker College has one of the only two AVMA-accredited undergraduate veterinary technology programs in Massachusetts. Becker delivers increasing numbers of pre-veterinary graduates into veterinary schools across the globe, and exposes undergraduates to One Health principles early in their studies. The college draws recognized leaders in a range of veterinary and veterinary technician education and practice, including nutrition, exotic and wildlife animal health, and zoonotic disease, to its Conference for Vet Techs and other campus events.

To shine an even brighter spotlight on One Health, Becker College is hosting a group of national leaders for a panel discussion of issues and ideas about how students and faculty, physicians and veterinarians; public health officials and bio-engineers; and human, animal, and environmental scientists can more effectively and efficiently meet the integrated health challenges of today’s world. By leveraging the strengths of our academic and research institutions, central Massachusetts will continue to gain stature as a global center for health sciences excellence long into the future.

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