



ONE WORLD,

ONE MEDICINE,

ONE HEALTH

One Health Intellectual Exchange

Weekly Discussions / Course: Philosophy to Practical Integration of Human, Animal and Environmental Health

A weekly discussion series, sponsored by the **North Carolina One Health Collaborative** within the NCBC IEG Program to enhance collaborations between physicians, veterinarians, researchers and other local/global/environmental health professionals by increasing public awareness of the interconnectedness of people, animals and the environment.

(Available each spring for credit if desired)

8th 2014 Weekly Session - Tuesday, March 4th

5:30 – 7:30 p.m.

Food Safety from Farm to Fork to Physician: Moving Towards a One Health Approach

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North Carolina State University

CEO, Center for Foodborne Illness Research & Prevention

Meets Tuesdays, 5:30 – 7:30 p.m. at the North Carolina Biotechnology Center

15 T.W. Alexander Drive Research Triangle Park, NC 27709

Directions: www.ncbiotech.org/directions

For more information on the course option, suggestions, or ideas contact NC OHC: nconehealth@gmail.com

For Speaker Cancellation notices and additional background on One Health and the NC OHC:

<http://nconehealthcollaborative.weebly.com/index.htm>

<http://onehealtheducation.blogspot.com/>

Facebook: search 'North Carolina One Health Collaborative'; **Twitter:** @NC_OneHealth





A respected expert in food safety and foodborne illness, **Dr. Barbara Kowalcyk** is co-founder and CEO of the Center for Foodborne Illness Research & Prevention (CFI), a national non-profit organization dedicated to preventing foodborne disease by advancing a stronger, science-based food safety system that improves public health locally and globally. In addition to her work at CFI, Dr. Kowalcyk also has faculty appointments at both North Carolina State University, where she is an assistant research professor in the Department of Food, Bioprocessing and Nutrition Sciences, and the University of North Carolina at Chapel Hill, where she is an adjunct assistant professor in the Department of Epidemiology in the Gillings School of Global Public Health. Dr. Kowalcyk has a strong analytical background with an undergraduate degree from the University of Dayton in Mathematics, a master's degree in applied statistics from the University of Pittsburgh and a Doctorate in Environmental Health with a focus in Epidemiology and Biostatistics from the University of Cincinnati. Her primary research interests are expanding the understanding of foodborne disease epidemiology and using public health informatics to advance a more systems-based approach to food safety that considers the broader connectedness of human, animal and environmental health.

Abstract:

Foodborne diseases are major causes of morbidity and mortality globally. In the United States, foodborne illness causes 48 million illnesses and 3,000 deaths annually at an estimated cost of \$78 billion. For many years, experts from academia, industry and government have recognized the need for an integrated, multi-disciplinary, systems-based approach to food safety that is informed by the best available science and protects public health. In 2010, the Institute of Medicine report *Ensuring Food Safety: the Role of the Food and Drug Administration* outlined a roadmap to developing a risk-based system that allocates limited resources in the most efficient and effective manner. In January 2011, the *Food Safety Modernization Act (FSMA)* was enacted by Congress, providing the first major overhaul of food safety law in over 70 years and mandating a new risk-based approach to FDA's oversight of food that focuses on prevention. During this presentation, we will discuss the epidemiology and burden of foodborne illness; the evolution of our current food safety system; and opportunities to move towards a more integrated One Health approach.

Recommended Readings:

Havelaar, A. H., et al. "Towards an integrated approach in supporting microbiological food safety decisions." *Zoonoses and public health* 54.3-4 (2007): 103-117.

Scallan, Elaine, and Barbara E. Mahon. "Foodborne diseases active surveillance network (FoodNet) in 2012: a foundation for food safety in the United States." *Clinical Infectious Diseases* 54.suppl 5 (2012): S381-S384.

Cronquist, Alicia B., et al. "Impacts of culture-independent diagnostic practices on public health surveillance for bacterial enteric pathogens." *Clinical infectious diseases* 54.suppl 5 (2012): S432-S439.

Batz, Michael B., Evan Henke, and Barbara Kowalcyk. "Long-term consequences of foodborne infections." *Infectious disease clinics of North America* 27.3 (2013): 599-616.

Overview/executive summaries of the following two reports:

Ensuring Food Safety: the Role of the FDA http://www.nap.edu/catalog.php?record_id=12892

Improving Food Safety through a One Health Approach <http://www.ncbi.nlm.nih.gov/books/NBK114498/>