



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)

6th 2013 Weekly Session - Tuesday, February 12

5:30 – 7:30 p.m.

Integrating Wildlife Health & Human Health to Promote Conservation in Forest and Savannah Ecosystems in Uganda

Dr. Gladys Kalema-Zikusoka, BVetMed, MRCVS, MsPVM

Conservation Through Public Health

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/

Suggestions? Ideas? Contact Cheryl Stroud, Steering Comm. Chair cms7earth@gmail.com

Add yourself to the listserv with Listserv Manager Liz Selisker, liz_selisker@ncsu.edu

For Speaker Bio's, Suggested Readings, Cancellation notices and additional background

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

<http://triangleglobalhealth.ning.com/group/tghconehealth>

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

For more information on the course option contact: Course TA Anne Stine anne.stine@duke.edu

Mamie Harris at UNC msharris@med.unc.edu

Chris Woods at Duke chris.woods@duke.edu

At NCSU Barrett Slenning barrett_slenning@ncsu.edu or Suzanne Kennedy-Stoskopf

suzanne_stoskopf@ncsu.edu





Gladys Kalema-Zikusoka was trained as a

veterinarian in London and at NC State and now works at the intersection of health and conservation amid Uganda's mountain gorillas. She is the founder and CEO of Conservation Through Public Health (CTPH), which uses integrated wildlife conservation and community public health interventions to implement three strategic programs: Wildlife Health Monitoring, Human Public Health and Information, Education & Communication.

When Kalema-Zikusoka was 25, she was appointed to be the veterinary officer for the Ugandan Wildlife Service, which later merged with Uganda's national parks to become the [Uganda Wildlife Authority](#). She was the first woman to hold that position and pioneered the first wildlife translocations to restock Uganda's national parks following years of poaching during Uganda's civil wars. As part of her veterinary research, Dr. Kalema-Zikusoka identified parasite transmission from humans to mountain gorillas as a significant risk factor for gorillas. Dr. Kalema-Zikusoka is an Ashoka Fellow.

Abstract:

Background: Bwindi Impenetrable National Park is home to more than half of the world's critically endangered mountain gorillas, surrounded by high population densities of 200 to 600 people per square kilometer. In 1996 and 2000, two scabies skin disease outbreaks in Bwindi mountain gorilla groups resulted in death of an infant and severe illness in the rest of the groups that only recovered with Ivermectin. The disease was traced to Bwindi local communities possibly when gorillas foraged in community land and came into contact with scabies mite infested clothing. Since then, Conservation Through Public Health (CTPH) has implemented a One Health program that promotes human public health, wildlife health and livestock health to prevent cross species disease transmission. **Methodology:** CTPH implements comparative disease surveillance at a Gorilla Research Clinic, where gorilla and livestock fecal samples collected by park rangers and community volunteers are analyzed together with human samples through a park employee health program and symptomatic human patients from local hospitals. **Results:** An active surveillance system has been implemented in gorillas and livestock. 44 community animal health workers and 56 community conservation health volunteers have sensitized local communities on animal and human health leading to increased uptake of family planning, good hygiene practices and vaccination of livestock. No noticeable outbreaks of scabies and other infectious diseases have occurred among mountain gorillas. Regular gorilla fecal analysis is now in the Uganda Wildlife Authority annual operational plan.

Queen Elizabeth National Park

This “One Health” approach has been scaled up to a savannah ecosystem of Queen Elizabeth National Park through comparative wildlife and livestock disease surveillance of zoonotic diseases including TB, Brucellosis, Rift Valley Fever Valley Fever; and initiating the formation of 30 community animal health workers and 30 community conservation health volunteers education in response to an anthrax outbreak that resulted in the death of 120 hippos, about the dangers of eating meat from unknown sources, grazing in the park and as well as hygiene and sanitation promotion.

Advocacy

CTPH is a member of the Uganda National Disease Taskforce comprised of Ministry of Health, Ministry of Agriculture Animal Industry and Fisheries, Ministry of Tourism, Wildlife and Antiquities through Uganda Wildlife Authority and supporting NGOs. Through this platform, CTPH established the first One Health disease outbreaks website, www.diseaseoutbreaks.ug and communication platform using mobile phone technology, raising awareness amongst decision and policy makers of the importance of the One Health approach in prevention and control of anthrax, ebola, and Marburg.

Background Readings:

1. Building support for protected areas using a ‘One Health’ approach
<http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CDMQFjAA&url=http%3A%2F%2Fwww.wcs.org%2Fconservation-challenges%2Fwildlife-health%2F~%2Fmedia%2FFiles%2Fpdfs%2FOneHealthPAsChapter.ashx&ei=sRQPud6COc-v0AHR2oCQCQ&usg=AFQjCNGIkijBGEax6dEBJaFGQhS8SzM5DQ&bvm=bv.41867550,d.dmQ>
2. The Health Paradigm and Protected Areas: Linkages Between People and their Livelihoods, Ecosystems and Natural Communities, and Health and Disease
<http://www.wcs-ahead.org/book/chapter12.pdf>
3. Population Connection: Gorillas on the List:
www.populationconnection.org/site/DocServer/Reporter.pdf
4. Mazet JAK, Clifford DL, Coppolillo PB, Deolalikar AB, Erickson JD, et al. (2009) A “One Health” Approach to Address Emerging Zoonoses: The HALI Project in Tanzania. PLoS Med 6(12): e1000190.
doi:10.1371/journal.pmed.1000190
<http://www.plosmedicine.org/article/info:doi%2F10.1371%2Fjournal.pmed.1000190>