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ENHANCING ONE HEALTH:

To Cultures, Add Culture

BACKGROUND

What we know about risks of transmission of zoonoses across the animal-human interface comes from epidemiologic investigations of outbreaks or of endemic disease. These investigations focus primarily on characterization of the pathogen and description of the standard epidemiologic triad of time, place, and person. Unfortunately, most have restricted inquiries about person to general characteristics – age, sex, and overall reported exposure to sick or infected animals. The consequence of this very general level of inquiry is exemplified by the case of avian influenza, one of the most commonly occurring emerging zoonotic diseases. Despite more than 600 cases and more than 350 deaths from avian influenza worldwide since 2003, a recent systematic review of pathways of exposure states that “...*the extent and frequency of risk behaviors and the relative risk of different behaviors is currently unknown*” (Kerkhove et al., 2011). This lack of knowledge is a serious deterrent to development of effective preventive programs.

MODERATOR

Stephen LUBY
Professor
Stanford University
USA

Susan ZIMICKI
Director
Infectious Diseases
FHI360
USA

There are, however, a few examples of investigations and of containment that benefited from including social scientists on the team. We will ask several scientists involved in some of these investigations to share their experiences and discuss how One Health investigations might regularly benefit from including social scientists.

OBJECTIVES

This session will make the case for

- Specific attention to prevention, and to characterizing the environmental, social, behavioral, and systems context in which disease transmission and amplification occur as means of identifying important preventive measures
- Explicitly including a broader, social science perspective in outbreak investigation and containment as well as in assessing risks of transmission of endemic diseases
- Identifying policy and systems changes needed to integrate this social science perspective as an integral part of a One Health approach

PANELISTS

- **Jeffrey Mariner**, Research Scientist, International Livestock Research Institute, Kenya
- **Saiful Islam**, Assistant Scientist, ICDDR, B, Bangladesh
- **Julienne Ngoundoung Anoko**, Free Lance consultant, Niger
- **Lertrak Srikitjakarn**, Dean Faculty of Veterinary Medicine, Chiang Mai University, Thailand
- **Cynthia Hunter**, Senior Lecturer, Anthropology and International Public Health, University of Sydney, Australia



Cynthia Hunter (PhD) a medical anthropologist and senior lecturer in International Public Health, School of Public Health and the Department of Anthropology, School of Social and Political Sciences at Sydney University teaches in two Masters Programs - International Public Health, and Development Studies. Her research interests focus on illness and healing ethnography and the delivery and quality of health care, particularly the interface between medicine and culture. She has worked in the Asia-Pacific, Australia, and lived in Indonesia conducting ethnographic research of village folk's access to health care. Recent researches include failed asylum seekers and forced migration, tertiary hospital ethnographies of clinicians' interactions with each other in Australia, and Jakarta, Indonesia. Currently she works on World Health Organization (WHO) funded research on Highly Pathogenic Avian Influenza (HPAI, H5N1) - a community response in Bali and Lombok, Indonesia.

CYNTHIA HUNTER

Senior Lecturer
Anthropology and
International Public
Health

*University of Sydney
Australia*



Md. (Mohammed) Saiful Islam works as an Assistant Scientist in the Surveillance and Outbreak Investigation research group of the Centre for Communicable Diseases at icddr,b. A native of Bangladesh, he completed his Bachelor and Masters of Social Science in Sociology at the University of Dhaka in 2005. In April 2006, he joined icddr,b as a Research Fellow in the Health System and Infectious Diseases Division. During his fellowship, he concentrated his research on issues in reproductive health and HIV/AIDS with a focus on qualitative and quantitative research methods. This experience stimulated his interest in the role of social science in epidemiology and public health. In 2007, Mr. Islam joined the Centre for Communicable Diseases (CCD) at icddr,b and has since contributed to numerous outbreak investigations including Nipah virus, H5N1, Anthrax, Hepatitis E, mass psychogenic illness, and various unintentional poisonings. He has also involved in Nosocomial infection in Bangladeshi tertiary care hospitals, Backyard poultry raising practices in Bangladesh and contributed to the design of culturally appropriate interventions for communities and hospitals from a social science perspective. In 2009, he completed a social science research course at the University of California, Berkeley and also studied Cultural Epidemiology short course at the Australia National University. In 2011, he attended a special training course in Tropical Epidemiology at the Institute of Tropical Medicine, in Antwerp, Belgium.

Mr. Islam has several publications in international peer-reviewed journals. His most recent manuscript was in the American Journal of Tropical Medicine and Hygiene, which focused on using a social-ecological model in the investigation of deaths associated with puffer fish ingestion (Month, 2012). Mr. Islam teaches at the James P Grant School of Public Health, BRAC University where he focuses on the role of anthropology in outbreak investigation.

SAIFUL ISLAM

Assistant Scientist

*ICDDR, B
Bangladesh*



Stephen Luby is Professor of Medicine with the Division of Infectious Diseases and Geographic Medicine; Deputy Director for Research at the Center for Global Health Innovation; Senior Fellow at the Woods Institute and Senior Fellow at the Freeman Spogli Institute for International Studies at Stanford University.

Prior to his current appointment, Dr. Luby served for eight years at the International Center for Diarrheal Diseases Research, Bangladesh (ICDDR,B), where he directed the Centre for Communicable Diseases. Dr. Luby was seconded from the US Centers for Disease Control and Prevention (CDC) and was the Country Director for CDC in Bangladesh.

Dr. Luby studied philosophy and earned a Bachelor of Arts summa cum laude from Creighton University in 1981. Dr. Luby earned his medical degree from the University of Texas Southwestern Medical School at Dallas in 1986 and completed his internship and residency in internal medicine at the University of Rochester-Strong Memorial Hospital. He studied epidemiology and public health in the Epidemic Intelligence Service (EIS) and the Preventive Medicine Residency of the Centers for Disease Control and Prevention.

Dr. Luby's career has included an EIS assignment to the South Carolina Department of Health and Environmental Control 1990-91; work with the CDC Malaria Branch in 1992; from 1993-98 Dr. Luby directed the Epidemiology Unit of the Community Health Sciences Department at the Aga Khan University in Karachi, Pakistan; and from 1998-2004 worked as a Medical Epidemiologist in the Foodborne and Diarrheal Diseases Branch of the CDC in Atlanta exploring causes and prevention of diarrheal disease in settings where diarrhea is a leading cause of childhood death.

Dr. Luby's research has addressed a number of public health issues. During his time in Bangladesh he lead a research group that explored the epidemiology of Nipah virus including detailed studies of villager's perspective on and response to the outbreaks and studies of virus circulation in its bat reservoir and spillover into domestic animals and humans. He has published over 200 scientific manuscripts.

STEPHEN LUBY

Professor

Stanford University
USA



Dr. Jeffrey C. Mariner is a veterinary epidemiologist currently working at the International Livestock Research Institute. While working at Tufts Cummings School of Veterinary Medicine in the 1980s and 90s, he developed a thermostable rinderpest vaccine that was subsequently adopted by the Global Rinderpest Eradication Program (GREP) as the vaccine of choice in the rinderpest eradication. As part of the field implementation of control programs, Dr. Mariner championed community-based approaches to vaccination and participatory approaches disease surveillance that addressed key constraints to disease control in remote and often politically unstable areas of the world. The integration of thermostable vaccine biotechnology and innovation in animal health institutions were key contributions to the eradication of rinderpest in 2011, only the second disease to be globally eradicated.

Dr. Mariner currently coordinates the Participatory Epidemiology Network for Animal and Public Health and conducts action research on appropriate surveillance and control measures for Peste des Petits Ruminants (PPR or small ruminant plague) in preparation for the progressive control of PPR.

JEFFREY MARINER

Research Scientist

*International Livestock
Research Institute
Kenya*



Dr Julienne Ngoundoung Anoko was born in Yaoundé (Cameroon) in 1968. Socio-anthropologist of the Sorbonne University, she also completed masters in epidemiology and public health, gender and health with the Rey Juan Carlos University of Madrid. She is implementer/operator in culture and health, gender and has published several papers both in scientific magazines and collective books. She is consultant and technical assistant of many multilateral, bilateral agencies and public administrations.

**JULIENNE
NGOUNDOUNG
ANOKO**

Consultant

Niger



In 1979, Lertrak Srikitjakarn graduated Doctor of Veterinary Medicine from the Faculty of Veterinary Medicine, Chulalongkorn University, Thailand. After graduation, he started work as a veterinarian in a world bank supported project aiming to increase cattle production, then 8 years as a field veterinary investigator in Epidemiology section of Thai-German, Regional Veterinary Diagnostic Centre in northeastern Thailand. In 1986 he completed the Dr.med.vet study, on Helminthosis and Fasciolosis control in Buffalo population in northeastern Thailand, at Free University Berlin, Germany. After resignation from government position, he run a private mix practice in dairy production area of Chiangmai for 10 years and become a lecturer of Division of Veterinary Public Health after joined the Faculty of Veterinary Medicine, Chiang Mai University and also Acting Associate Dean of Planning and Research in 1995. In 2003 he was a founder director of Regional Centre for Veterinary Public Health. His research interests are zoonoses control and VPH system.

Dr. Lertrak Srikitjakarn is currently dean of Faculty of Veterinary Medicine, Chiang Mai University since 2006.

**LERTRAK
SRIKITJAKARN**

Dean
Faculty of Veterinary
Medicine

*Chiang Mai University
Thailand*



Dr Zimicki is a demographer and epidemiologist with almost 35 years of experience in child health, infectious diseases and health behavior change. She currently works at FHI360 (formerly AED), where she is Technical Director of the USAID PREVENT Project, which focuses on emerging pandemic threats.

Dr Zimicki has been director of two global USAID projects and has managed the provision of technical assistance in behavior change and communications approaches to more than 20 countries. She currently chairs the STH Advisory Committee of Children Without Worms, a partnership between GlaxoSmithKline, Johnson & Johnson, and The Task Force for Global Health; previously she served as Chair of the WHO/TDR Steering Committee on Implementation Research and the Task Force on Operational Research on Bednets. She has worked in more than 25 countries in Africa and Asia, with long stints in Bangladesh (5 years) and Uganda (3 years) and lengthy assignments (6-8 months) in Senegal, The Gambia and the Philippines.

She received her PhD in Demography from the University of Pennsylvania and her Masters in Epidemiology and Tropical Public Health from Harvard School of Public Health.

SUSAN ZIMICKI

Director
Infectious Diseases

FHI360
USA