

19TH ANNUAL BC ONE HEALTH & ZOOONOSES SYMPOSIUM



WEDNESDAY NOVEMBER 25TH

Zoom Webinar

PRESENTED BY:

BCCDC; BC MINISTRY OF AGRICULTURE; & BC MINISTRY OF FOREST, LANDS, NATURAL
RESOURCES OPERATIONS, AND RURAL DEVELOPMENT

WELCOME

9:00

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Erin Fraser, BCCDC & Brian Radke, BC Ministry of Agriculture

9:05

KEYNOTE ADDRESS

Patrick Leighton, University of Montreal

SESSION 1

Moderators: Brian Radke
& Chelsea Himsworth

9:20

BUILDING INTERACTIVE TOOLS TO BRING TOGETHER CANADIAN ANIMAL HEALTH SURVEILLANCE INFORMATION

Doris Leung & Theresa Burns, Canadian Animal Health Surveillance System

9:40

OCCUPATIONAL HEALTH RISKS OF CANCER DRUGS IN VETERINARY PRACTICE AND HUMAN MEDICINE

Hugh Davies, University of British Columbia

10:00

WASHINGTON STATE ZONOSSES UPDATE

Hanna Oltean, Department of Health, Washington State

10:20

LIKE NO UDDER: PUBLIC HEALTH PREVENTION OF MASTITIS IN COWS AND RELATED HUMAN CONDITIONS

Farah Shroff, University of British Columbia

SESSION 2

Moderators: Brian Radke
& Chelsea Himsworth

10:50

ONE HEALTH AND ZONOSSES: STUDENT SESSION

Elise Blake

The Year of the Rat: The Ecology of Hepatitis E Virus in Urban Rats

Michelle Coombe

Ecological factors associated with avian influenza positive sediment samples from wetlands in British Columbia, Canada

Michael Lee

"A world without us would be a pretty miserable world":
Stakeholder perspectives on the development and implementation of municipal rat management

11:20

ONE HEALTH APPLICATIONS FOR WATER AND ENVIRONMENTAL SAMPLING OF ZOO NOTIC PATHOGENS

Natalie Prystajeky, BCCDC

11:40

RAT PACKS: USING RELATEDNESS TO UNDERSTAND SPATIAL CLUSTERING OF RAT-ASSOCIATED PATHOGENS

Kaylee Byers, BC Ministry of Agriculture and Canadian Wildlife Health Cooperative

SESSION 3

Moderators: Theresa Burns
& Erin Fraser

12:30

CASE STUDY

- Raina Fumerton, Northern Health Authority
- Emily Jenkins, Western College of Veterinary Medicine
- Michael Pawlik, Animal Health Centre, BC Ministry of Agriculture
- Eleni Galanis, BC Centre for Disease Control
- Helen Schwantje, BC Ministry of Forest, Lands, Natural Resources Operations, and Rural Development

SESSION 4

Moderators: Helen Schwantje
& Morshed Muhammad

1:40

FOOD SAFETY AND SECURITY IN FIRST NATIONS' COMMUNITIES IN BC

Casey Neathway and Helena Swinkels, First Nations Health Authority

2:05

BC REPORTABLE ZOONOSSES UPDATE 2019 - 2020

Erin Fraser, BC Centre for Disease Control

2:25

RE-IMAGING NATURE-BASED SOLUTIONS AN ASSETS-BASED HEALTH RESPONSE TO THE COVID-19 PANDEMIC

Craig Stephen, University of British Columbia

2:45

CLOSING REMARKS

Morshed Muhammad, BCCDC

SPEAKERS & MODERATORS



THERESA BURNS

Canadian Animal Health Surveillance System

Theresa received her DVM (with distinction) and MSc in Theriogenology from the Western College of Veterinary Medicine and her PhD in Epidemiology from the University of Guelph. She is Board Certified with the American College of Theriogenologists and is a member of the College of Veterinarians of British Columbia and the Canadian Veterinary Medical Association.



KAYLEE BYERS

BC Ministry of Agriculture and Canadian Wildlife Health Cooperative

Dr. Kaylee Byers is the Deputy Director of the British Columbia node of the Canadian Wildlife Health Cooperative. She received her PhD from the University of British Columbia where she studied urban rats and the risks they pose to human health.



HUGH DAVIES

University of British Columbia

Dr. Hugh Davies, PhD, MSc, CIH is an Associate Professor in the UBC School of Population and Public Health. He is also a board-certified industrial hygienist. Dr. Davies has broad research interests focused on the evaluation of occupational hazards and their control. He is currently principal investigator on projects researching occupational exposure of healthcare workers to anti-neoplastic drugs, whole body vibration exposure and its control in truck drivers, and directs a project to build a national occupational exposure database. He is a member of the ACGIH TLV Committee, and the Past-President of the Canadian Association for Research on Work and Health (CARWH).



ERIN FRASER

BCCDC & BC Ministry of Agriculture

Erin is a public health veterinarian at the BC Centre for Disease Control. She is a graduate of the University of Guelph and has over 20 years of experience as an epidemiologist, public health veterinarian, researcher, and executive director. She co-founded Veterinarians without Borders – Canada and was the organization's first executive director. She has worked across Canada and internationally with interdisciplinary, multicultural teams to develop programs and projects that address public and animal health issues from zoonotic disease surveillance, prevention, detection, and control, to wildlife health, food security, and factors that affect livelihoods. Her current work at the BCCDC includes surveillance of zoonotic diseases (with a focus on rabies), foodborne pathogens, antimicrobial resistance in companion animals, and climate change and tickborne diseases.



RAINA FUMERTON

Northern Health Authority

Dr. Raina Fumerton (Northern Health): Dr. Fumerton is a Medical Doctor and Public Health and Preventive Medicine Specialist. She has been employed as a Medical Health Officer for Northern Health since September 2014. Her interests span the broad scope of public health including health equity, the social determinants of health, communicable disease control, and better understanding the health impacts (both positive and negative) of resource development on the northern communities she serves.



CHELSEA HIMSWORTH

BC Ministry of Agriculture

Dr. Chelsea Himsworth received her DVM from the Western College of Veterinary Medicine, before staying on to complete a Masters of Veterinary Science and Senior Residency in Anatomic Pathology with a Wildlife Health focus. She went on to achieve Diplomate status with the American College of Veterinary Pathologists before completing her PhD in the School of Population and Public Health, University of British Columbia. Currently, she is a Diagnostic Pathologist and the Leader for Veterinary Science and Diagnostics at the Animal Health Centre, BC Ministry of Agriculture. She is also the BC Regional Director for the Canadian Wildlife Health Cooperative and an Assistant Professor in the School of Population and Public Health, University of British Columbia. Dr. Himsworth's research and practice is focused on the surveillance of infectious disease, particularly zoonotic disease (i.e., diseases transmitted from animals to people) and diseases involving free-ranging wildlife.



EMILY JENKINS

Western College of Veterinary Medicine

Dr Emily Jenkins (PhD, DVM, BSc Honours Zoology) is Professor and Acting Head of the Department of Veterinary Microbiology, Western College of Veterinary Medicine at the University of Saskatchewan, Saskatoon, Canada. She teaches veterinary parasitology, emergency management for public health, and One Health to veterinary and graduate students. Her research takes a One Health approach to zoonotic parasites and vector-borne diseases that transmit among animals, people, and the environment. She currently serves on the Canadian Parasitology Expert Panel and the Terrestrial Working Group of the International Arctic Scientific Committee.



PATRICK LEIGHTON

University of Montreal

Patrick Leighton is Professor of Epidemiology and Public Health at the Faculty of Veterinary Medicine, University of Montreal, and an active member of the Epidemiology of Zoonoses and Public Health Research Group (GREZOSP). His research focuses on the ecology of wildlife diseases that are transmissible to humans, and in particular the impact of ecological change on the epidemiology of these diseases and the risk they pose to public health. He co-developed and co-directs U. Montreal's Master's Programs in One Health and Veterinary Public Health.



DORIS LEUNG

Canadian Animal Health Surveillance SYstem

Dr. Doris Leung has recently been hired as the Communications Lead with CAHSS. She received her DVM from the Ontario Veterinary College and MPH (Master of Public Health) from the University of British Columbia. Dr. Leung is excited to utilize her knowledge in health communication, veterinary public health, and disease surveillance to create knowledge translation pieces to engage stakeholders, foster collaboration, and to promote evidence-based decision making to improve public health programs and policies.



MORSHED MUHAMMAD

BCCDC

Dr Morshed is a clinical microbiologist and the program head of zoonotic diseases, emerging pathogens and parasitology at the BCCDC Laboratory. He is also a clinical professor in the UBC Department of Pathology & Laboratory Medicine. He received his PhD from the Yamaguchi University School of Medicine (Japan) in 1994. He completed his specialty training at the Research Institute of Tuberculosis in Tokyo and at the College of Natural Resources, University of California (Berkeley). Dr. Morshed is recognized by the national and international research community for his expertise on spirochaetal diseases.



CASEY NEATHWAY

First Nations Health Authority

Casey Neathway is the Interior Regional Manager of Environmental Public Health Services for the First Nations Health Authority. A certified public health inspector, Mr. Neathway has previously worked as an Environmental Health Officer, an Executive Director in a BC First Nation, and is currently President of the B.C. Branch of the Canadian Institute of Public Health Inspectors. Mr. Neathway is passionate about working as a partner with First Nations communities to identify and mitigate environmental health concerns, and to improve health outcomes for indigenous populations.



MICHAEL PAWLIK



NATALIE PRYSTAJECKY

BCCDC

Dr. Natalie Prystajeky received her PhD in Pathology and Laboratory Medicine from the University of British Columbia (UBC) in 2010 and has been with the BCCDC Public Health Laboratory since 2011. At the BCCDC PHL, she oversees two laboratories: Environmental Microbiology, focusing on foodborne and waterborne illness, and the Molecular and Microbial Genomics laboratory, an R&D program focused on molecular/genomic test development and deployment. Through her leadership in these two programs, she uses emerging technologies such as genomics to improve routine surveillance and outbreak investigations. Dr. Prystajeky is also a Clinical Assistant Professor in Pathology and Laboratory Medicine at the University of British Columbia. Her research interests are broad, ranging from development of new water quality tests using metagenomics, to targeted resequencing of wetland sediments to study the emergence of avian influenza strains to whole genome sequencing of COVID-19. She is keen to promote the translation of research methods to routine testing in diagnostic and reference laboratories.



HANNA OLTEAN

Department of Health, Washington State

Hanna Oltean is a senior epidemiologist at the Washington State Department of Health. She currently leads the Zoonotic, Vector-borne, and Cross-cutting Diseases Program, in the Office of Communicable Disease Epidemiology. Her work focuses on communicable disease surveillance system design, implementation, and evaluation.



BRIAN RADKE

BC Ministry of Agriculture

Brian Radke, DVM, PhD is a Public Health Veterinarian at the BC Ministry of Agriculture's Animal health Centre located in Abbotsford. Following graduation from the WCVN in 1989, Brian spent five years in private veterinary practice in Ontario and the Fraser Valley with a focus on dairy herd health. Following a PhD in Agricultural Economics from Michigan State University, he was employed by Alberta Agriculture as a dairy cattle research veterinarian and a research economist. Dr Radke was a Public Health Veterinarian at the BC Centre for Disease Control for 5 years before joining the Ministry of Agriculture in 2011.



HELEN SCHWANTJE

BC Ministry of Forest, Lands, Natural Resources Operations, and Rural Development

Helen is the Wildlife Veterinarian for British Columbia. She was hired by the BC government in 1992. She graduated from the Western College of Veterinary Medicine in 1981, followed by practice in BC in mixed animals, zoo animal practice and completed a Masters of Science in Veterinary Pathology (specialty in wildlife diseases) in 1987, with her thesis on the evaluation of health status of bighorn sheep herds in the East Kootenay region of BC. Her work with wild sheep continues but many other priorities compete with that focus. In her other life, she purchased a now 100+ year old farm in 1986 where she has a live off the land hobby, raising domestic sheep and other edibles. Fortunately, her husband is a great cook. She is retiring to the farm at the end of February 2021



HELENA SWINKELS

First Nations Health Authority

Dr. Helena Swinkels, Senior Medical Officer, Public Health, is proud to work with the First Nations Health Authority in a part-time role. Throughout her career, she has worked collaboratively with other physicians, individuals and community partners to promote healthy environments in which people can thrive in their work, communities and lives. She developed a spirit for adventure growing up in beautiful Ktunaxa territory and has since travelled the world seeking new perspectives, insights and ways to contribute. Dr. Swinkels worked as a family doctor in the Yukon, rural BC, Nepal and Vancouver before entering specialty training in Public Health and Preventive Medicine in 2005. Prior to joining the FNHA, Dr. Swinkels worked for nine years with the Fraser Health Authority in the role of Medical Health Officer. She has a passion for transforming health care systems through diversity and inclusion. She has developed and fostered strategic partnerships at the regional, provincial and national levels, and has broad experience across multiple disciplines within public health. She has a Master of Health Science from UBC, Undergraduate Medicine from UBC, and a Bachelor of Science in Biochemistry from Simon Fraser University.



FARAH SHROFF

University of British Columbia

Dr Farah M Shroff is an educator, researcher and changemaker in the field of public health. She founded Maternal and Infant Health Canada, a global health collaborative that focuses on improving the lives of womxn and children through education, research and innovation. Her passions include sustainability, one health, holistic health, womxn's health, child/family health, policy directions, health promotion, global health, social justice issues and others. She is editor of and ontributor to the book "The New Midwifery: Reflections on Renaissance and Regulations" (Women's Press, 1997) as well as several other publications. She has worked in many parts of the world. She teaches at the UBC Medical School and is also an independent researcher. Dr Shroff also teaches yoga, dance and other wellness activities.



CRAIG STEPHEN

University of British Columbia & Ross River School of Veterinary Medicine

Craig Stephen is a One Health and Ecohealth practitioner who is a clinical professor at both the School for Population and Public Health (UB) and the Ross School of Veterinary Medicine. He has worked in the field of emerging environmental threats, global health and reciprocal care for over 20 years.

STUDENTS



ELISE BLAKE

Simon Fraser University

Elise Blake completed her Masters of Public Health at Simon Fraser University with a concentration in Environmental and Occupational Health in August 2020. Her research focused on the ecological understanding of zoonotic pathogens in urban wildlife and how this information can be used to improve mitigation strategies and reduce public health risk.



MICHELLE COOMBE

University of British Columbia

Michelle is passionate about One Health, disease ecology, and epidemiology. She graduated in 2005 with a BSc in Ecology from the University of Calgary, where she did field work with black howler monkeys, dusky flycatchers, and black-capped chickadees. Michelle then completed her DVM at the Western College of Veterinary Medicine in 2011 and practiced small animal and exotics medicine in Prince George and Vancouver. She discovered her inner zeal for statistics and data analysis while at the University of British Columbia, where she is currently completing her PhD in the School of Population and Public Health. Her research focuses on using wetland mud for the surveillance of avian influenza in wild water birds.



MICHAEL LEE

University of British Columbia

Michael Lee is a PhD candidate in the School of Population and Public Health at UBC. His research involves understanding the complex interplay between urban rats, their constellation of negative impacts, and metropolitan society. Recently, his work has moved towards knowledge translation and has involved seeking to understand the factors that promote a knowledge to action implementation gap which may prevent municipalities from effectively managing rats and their associated risks.