

Advancing Data Sharing to Strengthen One Health Effectiveness: Series Synthesis and Paths Forward

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MODERATOR BIOSKETCHES

TRACEY DUTCHER, D.V.M., M.S. is the Deputy Assistant Director for the U.S. Department of Homeland Security's Office of Health Security (OHS). In this role, she provides leadership and critical interagency and interdisciplinary experience, knowledge and technical insight to guide formation of OHS' Health, Food, and Agriculture Resilience Directorate and its emergent focus on One Health as an essential component of national security. Prior to this assignment, Tracey developed and implemented a \$300M program for COVID-19 pandemic response that firmly established USDA's Animal and Plant Health Inspection Service (APHIS) as a critical One Health partner, and also led national biodefense strategy planning efforts for the Agency. These roles built on Tracey's previous experience and expertise in developing transdisciplinary approaches to solve complex problems within and across agency boundaries at state and federal agencies and with academia and industry to increase efficiency and effectiveness of policy development, mission operations, and business continuity to strengthen food and health security. Dr. Dutcher is a certified Integral Coach®, an alumnus of the CDC Epidemic Intelligence Service, a diplomate of the American College of Veterinary Preventive Medicine, and a Distinguished Fellow with the National Academies of Practice.

LAUREN CHARLES, PH.D., D.V.M., M.S. is a veterinarian and Chief Data Scientist within the National Security Directorate at Pacific Northwest National Laboratory (PNNL). Her research integrates multimodal data, e.g., human and animal medical records and disease reporting with opensource data, environmental conditions, epidemiologic variables, and socioeconomic factors, into complex models to advance current Biosurveillance, event and anomaly detection, risk assessment, and early warning through an all-source, One Health (OH) approach. Dr. Charles leads PNNL's AI-Driven OH Security program, which focuses on disrupting health threats and their impacts. Leveraging PNNL's leadership in operational AI and OH, the team works at the local, regional, national, and global levels to achieve optimal health and security results. Charles sits on the editorial board of *Nature's Scientific Reports*, *Pathogens* journal, and is an associate editor for *CABI One Health*. She also serves as an advisor on Senator Gillibrand's One Health Security Council and holds a joint appointment with Washington State University's Paul Allen School for Global Health.

SUMIKO MEKARU, D.V.M., PH.D. is Founder and Principal of Epivoyant LLC and an Instructor of Public Health and Community Medicine at Tufts University School of Medicine. She previously served as the lead epidemiologist for the modeling and analytics workstream for the Department of Defense COVID Task Force and the Vice President of Client Delivery for Epidemico, an informatics company that provided early insights on disease outbreaks, drug safety, and supply chain vulnerabilities. As a veterinarian and epidemiologist, Dr. Mekaru brings both clinical experience and deep training in analytic methods to innovating new techniques for infectious disease surveillance, modeling, and prediction. At Boston Children's Hospital, she helped create, maintain, and revise health surveillance tools such as Flu Near You/Outbreaks Near Me, Vaccine Finder, and the award-winning healthmap.org. She has coauthored dozens of peer-reviewed manuscripts on disease outbreaks and surveillance, and data analysis methods. Dr. Mekaru received her DVM from the Cummings School of Veterinary Medicine at Tufts University. After practicing at a small animal hospital, she received a Master of Preventive Veterinary Medicine from UC Davis and a PhD in epidemiology from Boston University.

SPEAKER BIOSKETCHES

JOSEPH ANNELLI, D.V.M., M.S. is the founder of Practical One Health Solutions and currently serves as Executive Vice President of the National Association of Federal Veterinarians (NAFV), bringing a career-long focus to the human–animal–environment interface. His One Health foundation began with a Master’s degree that integrated all formal coursework within a School of Public Health while conducting research through a College of Veterinary Medicine, shaping a transdisciplinary approach to complex health threats. Over a 32-year career with USDA-APHIS Veterinary Services, he helped operationalize One Health through leadership in animal disease preparedness and response—most notably avian influenza prevention and control, including efforts to eradicate avian influenza from the New York City live bird market system, international avian and pandemic influenza response, and service supporting the White House Avian and Pandemic Influenza preparedness implementation plan. He later led USDA engagement on global health security and helped establish interagency One Health coordination mechanisms, including founding and directing USDA’s One Health Coordination Center.

NATASHA BAGDASARIAN, M.D., M.P.H., FIDSA, FACP is the Chief Medical Executive for the State of Michigan. She is board certified by the American Board of Internal Medicine in Internal Medicine and Infectious Diseases, and she is a Fellow of the Infectious Diseases Society of America and the American College of Physicians. Dr. Bagdasarian completed medical school at Wayne State University; internal medicine residency and infectious diseases fellowship at the University of Michigan; and she received a Master of Public Health (MPH) degree, from the University of Michigan School of Public Health. She serves as adjunct faculty at the University of Michigan School of Public Health. Dr Bagdasarian is a member of Governor Gretchen Whitmer’s Cabinet. She chairs Michigan’s Public Health Advisory Council, Childhood Lead Elimination Commission, Gun Violence Prevention Task Force and Opioid Task Force.

JAKE BYRNES, PH.D., M.S. is the Chief Scientific Officer at Barnwell Bio, a startup developing a proactive biosurveillance platform to improve animal health. He earned a PhD in Evolutionary Genetics and an MS in Statistics from the University of Chicago, followed by two postdoctoral positions at Oxford University and Stanford University. In 2011 he joined the genealogy company Ancestry, to develop their direct-to-consumer genetics test, next moving to lead a Computational Genomics team at Vertex Pharmaceuticals. Most recently he was the VP of Data Science at Biobot Analytics, the company that worked with CDC to establish COVID wastewater monitoring during the pandemic.

PATRICK WEBB, D.V.M. is the assistant chief veterinarian at the National Pork Board, where he joined in 2005. He is responsible for the Pork Checkoff efforts for foreign animal disease prevention and preparedness efforts. Throughout his career, Dr. Webb has worked extensively on emergency preparedness and planning at the local, state and federal levels, and has developed and delivered numerous educational programs directed at training producers, veterinarians, county emergency managers and first responders on how to respond to foreign animal disease disasters.