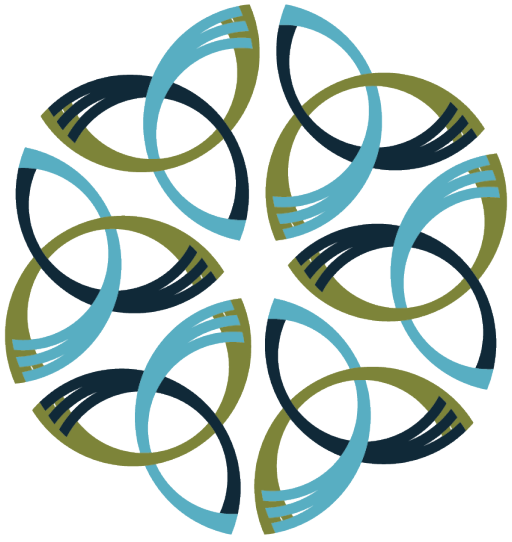
PMAC PRINCE MAHIDOL AWARD CONFERENCE 2018



PARALLEL SESSION 4.5

BRINGING SOLUTIONS INTO FOCUS: HARNESSING THE POWER OF AN ECONOMIC LENS

| BACKGROUND

Beyond the tragic loss of human life, the economic impact attributable to epidemics and pandemics can be catastrophic. SARS, $30 billion; Pandemic H1N1: $40 billion; Ebola: $2.8 billion in the three West African economies alone. Recent estimates place the inclusive costs from a moderately severe influenza pandemic at $570 billion annually, within the range projected for the annual cost associated with global climate change. And, without intervention, the cumulative economic impact from anti-microbial resistance (AMR) through 2050 is projected to exceed $100 trillion (two-thirds of which is in low- and middle-income countries), substantially more than current annual global economic output.

Despite a repeated pattern of costly response, the economic case for investing in proactive, preventive measures targeting a reduction in the pressures that facilitate disease emergence has not been widely adopted. A yearly investment of $1.9-3.4 billion to strengthen animal and human public health systems would yield a global public benefit estimated at over $30 billion annually through avoided economic damages associated with pandemics. High return on investment is expected even if only a portion of pandemics are prevented, and strengthened One Health capacity in countries may confer additional benefits via improved prevention and control of endemic disease and AMR. However, challenges in mobilizing capital; an anemic evidence base and difficulty in translating evidence into policy advocacy with budget decision-makers; competing priorities for scarce health systems funding; and inequitable distribution of costs and benefits across sectors and stakeholders are all amongst the impediments to adopting the economic case for investing in preventive approaches.

Recent efforts designed to address these challenges have employed a range of approaches. Structures prioritizing risk avoidance and transference are being developed (e.g. multi-sectoral health security planning and capacity investments; epidemic/pandemic insurance structures). Also underway are new models capturing the economic impact of disease emergence as a function of land use, which will enable the disease regulatory role of ecosystems to be fairly valued and incorporated into payment for environmental services frameworks. And global financing structures promoting targeted, multi-sectoral systems strengthening and incentivizing investments in preparedness are being established.

| OBJECTIVES

- Highlight successful practices and approaches that have demonstrated promise in fostering decision making informed by economic analyses;
- Profile structures with proven utility in transcending the identified challenges, including resource prioritization and inequitable sectoral cost and benefit distribution;
- Discuss approaches that strengthen the economic evidence base for investments in proactive, preventive disease mitigation approaches; and
- Review policy and regulatory options, such as tax and incentive structures, that can contribute to a favorable investment environment for more wide scale adoption of risk mitigation approaches

Moderator

Catherine Machalaba

Policy Advisor

EcoHealth Alliance
United States of America

Moderator

Daniel Schar

Senior Regional Emerging Infectious Diseases Advisor

USAID Regional Office
Thailand

Daniel Schar, VMD is the Senior Regional Emerging Infectious Diseases Advisor at the U.S. Agency for International Development, Regional Development Mission for Asia in Bangkok, Thailand. Dr. Schar earned the doctoral degree in veterinary medicine from the University of Pennsylvania, and completed post-doctoral training in large animal medicine and surgery at the University of Minnesota. He began his career in clinical equine practice in 2003, worked as a technical advisor to the veterinary sector in Mongolia as a Henry Luce Scholar, and served at the U.S. Department of State in the Bureau of International Security and Nonproliferation, where he led development of health security programs in sub-Saharan Africa and Southeast Asia. Dr. Schar has served at USAID since 2009, where he oversees work addressing emerging viral zoonoses, zoonotic influenza, antimicrobial resistance, and economic approaches to emerging infectious disease prevention. In addition to research and policy publications, his writing has appeared in the New York Times, Stat, Science, South China Morning Post, and Slate.

Panelist

Carlos Zambrana-Torrelio

Associate Vice President for Conservation and Health

EcoHealth Alliance
United States of America

Panelist

Gavin Yamey

Director, Center for Policy Impact in Global Health

Duke University Global Health Institute
United States of America

Gavin Yamey MD, MPH, MA is the Director of the Center for Policy Impact in Global Health based in DGHI. The Center is an innovative policy lab that addresses critical challenges in financing and delivering global health. He trained in clinical medicine at Oxford University and University College London, medical journalism and editing at the BMJ and public health at the London School of Hygiene and Tropical Medicine. He was Deputy Editor of the Western Journal of Medicine, Assistant Editor at the BMJ, a founding Senior Editor of PLOS Medicine, and the Principal Investigator on a $1.1 million grant from the Bill & Melinda Gates Foundation to support the launch of PLOS Neglected Tropical Diseases. In 2009, he was awarded a Kaiser Family Mini-Media Fellowship in Global Health Reporting to examine the barriers to scaling up low cost, low tech health tools in Sudan, Uganda and Kenya. Dr. Yamey currently serves as a commissioner on the Lancet Commission on Tuberculosis. He previously served on two international health commissions, the Lancet Commission on Investing in Health and the Lancet Commission on Global Surgery. He has been an External Advisor to the WHO and to TDR, the Special Program for Research and Training in Tropical Diseases. Dr. Yamey has published extensively on global health, neglected diseases, health policy, and disparities in health and has been a frequent commentator on National Public Radio. He directs the Global Health Track in Duke's Program on Global Policy and Governance in Geneva. Before joining Duke, Dr. Yamey led the Evidence-to-Policy Initiative in the Global Health Group at the University of California, San Francisco (UCSF) and was an Associate Professor of Epidemiology & Biostatistics at the UCSF School of Medicine.

Panelist

Nita Madhav

Head of Data Science

Metabiota
United States of America

Nita Madhav is the Head of Data Science at Metabiota, where she oversees the teams responsible for monitoring and modeling infectious disease spread and economic impacts. Ms. Madhav has over 12 years of experience in probabilistic modeling and risk assessment. The majority of her experience has focused on developing infectious disease risk, burden, and costing models to provide actionable insights to commercial and government entities. While at Metabiota, Ms. Madhav established the modeling group and has spearheaded the team's efforts to create the comprehensive library of modeled pathogens. Before joining Metabiota, Ms. Madhav worked as a Principal Scientist at AIR Worldwide, where she led the life and health research and modeling team. Prior to that, Ms. Madhav performed hantavirus research at the Special Pathogens Branch of the US Centers for Disease Control and Prevention. Ms. Madhav holds a BS in Ecology & Evolutionary Biology, with distinction, from Yale University and an MSPH in Epidemiology from the Rollins School of Public Health at Emory University.

Panelist

Ramanan Laxminarayan

Director and Senior Fellow

Center for Disease Dynamics, Economics, & Policy
India

Laxminarayan is director and senior fellow at the Center for Disease Dynamics, Economics & Policy (CDDEP) in Washington, D.C., and a senior research scholar and lecturer at the Princeton Environmental Institute at Princeton University. He is an affiliate professor at the University of Washington and a visiting professor at the University of Kwazulu Natal and the University of Strathclyde. Laxminarayan is founder of HealthCube, which works to improve access to healthcare and diagnostics. Since 1995, Laxminarayan has worked to improve the understanding of antibiotic resistance as a problem of managing a shared global resource. His work encompasses extensive peer-reviewed research, public outreach, and direct engagement in eleven countries in Asia and Africa through the Global Antibiotic Resistance Partnership. Through his prolific research, active public outreach (including a TED talk that has been widely viewed) and sustained policy engagement, he has played a central role in bringing the issue of drug resistance to the attention of leaders and policymakers worldwide and to the United Nations General Assembly in September 2016. Laxminarayan has served on the U.S. President's Council of Advisors on Science and Technology's antimicrobial resistance working group and is currently a voting member of the U.S. Presidential Advisory Council on Combating Antimicrobial Resistance. He is a series editor of the Disease Control Priorities for Developing Countries, 3rd edition. In 2012, Laxminarayan created the Immunization Technical Support Unit that supports the immunization program of the Ministry of Health and Family Welfare of the Government of India and which is credited with helping rapidly improve vaccination coverage and introduction of four new vaccines. As Vice President, Research and Policy at the Public Health Foundation of India between 2011 and 2015, he led the growth of a research division to over 700 technical and research staff. Laxminarayan's work has been covered in major media outlets including Associated Press, BBC, CNN, the Economist, LA Times, NBC, NPR, Reuters, Science, Wall Street Journal, and National Journal.

Panelist

Victoria Fan

Assistant Professor, Office of Public Health Studies

University of Hawai`i at Mānoa
United States of America

Dr Victoria Fan is Assistant Professor at the University of Hawai'i at Mānoa. She is also Visiting Assistant Professor at the Harvard T.H. Chan School of Public Health, FXB Fellow at the Francois Xavier Bagnoud Center for Health and Human Rights at Harvard University, Adjunct Fellow at the East West Center, and Visiting Fellow at the Center for Global Development. She earned her doctor and master of science in global health and population from Harvard T.H. Chan School of Public Health and bachelor of science in mechanical engineering from the Massachusetts Institute of Technology. Her work in health economics and health systems is broadly concerned with allocating financial and human resources to improve health and to reduce financial risks associated with seeking health care. Her work has contributed to identifying the health financing transition, landscaping the health workforce in China and India, and assessing payment and other incentive mechanisms. She has studied aid effectiveness and value for money of development assistance for health. Her work using impact evaluation and economic evaluation in health have assessed the costs and benefits of health interventions and health risks, including diabetes prevention, dental care, end-of-life care, and pandemic influenza. She has published 67 peer-reviewed articles, monographs, book chapters, letters, and policy reports. She has published in The Lancet, BMJ, Health Affairs, Social Science and Medicine, Health Services Research, and other journals. She has applied econometric and quantitative methods to analyze census data, life tables, demographic and health surveys, consumption expenditure surveys, administrative databases, claims data, clinical and electronic health record data, budget data, macroeconomic cross-country time series data, and other sources of health information. She has been invited as a guest speaker by or given advice to multilateral institutions (e.g. WHO, World Bank, UNICEF, and African Development Bank) and national governments (e.g. State Council of China, Finance Commission of India, NITI Aayog of India, and ministries of health in China, India, South Korea, Thailand, and Myanmar). She has worked with nongovernmental organizations in Asia (BRAC, SEWA, Tzu Chi) and at units at Harvard University (Harvard Initiative for Global Health, Harvard Global Equity Initiative, Harvard University Program for Health Care Financing). She previously served as a consultant to the World Bank, World Health Organization, and the China Medical Board. Her research has been supported by the National Institutes of Health, US Centers for Disease Control and Prevention, Bill & Melinda Gates Foundation, China Medical Board, Rockefeller Foundation, and the State of Hawaii. She is passionate about mentoring students and teaching health economics, health systems and policy, and quantitative research methods. She has taught 17 different courses at the University of Hawai'i and Harvard. She invites students to follow her on Twitter (https://twitter.com/FanVictoria) and to sign up to meet her during office hours (use http://calendly.com/vfan). Victoria was born and raised in Honolulu.