

Global Health Pre-Meeting Course: **The Science of Disease Elimination**Sunday, November 13, 2016; 8 a.m. – 3:30 p.m. Atlanta Marriott Marquis, Atlanta, Georgia, USA

Eradication of disease is the aspirational goal of global public health efforts, and yet only one infectious disease of humans- smallpox- has been eradicated to date. There are ongoing efforts to eradicate poliomyelitis, dracunculiasis, yaws and malaria, and five more infectious diseases have been identified as potentially eradicable. Diseases that are potentially eradicable share a number of critical features, including the absence of a non-human reservoir or environmental amplification, availability of diagnostics, and an efficient and effective intervention. Additional factors such as financial support to implement interventions and political commitment are crucial to mount a successful eradication campaign. In recent years, health leaders have put forward the concept of disease elimination while calling upon scientists and policy makers to determine ways to achieve this noble aspiration. Global commitments to finance disease control programs worldwide have made this concept a tangible reality. Although these commitments are unprecedented in their amounts, they may still fall short in being able to reach the desired outcome unless progress can be demonstrated. Progress inspires continued support as without continued support, elimination and ultimately eradication are not possible.

Meanwhile, breakthroughs in program management, treatment, diagnostics, informatics, mapping, modelling and analysis to eliminate or eradicate diseases are notable. The pre-meeting course will focus on highlighting elimination topics, explaining their scientific theory, describing the implementation of elimination strategies and their evaluation to assess their utility in helping to drive transmission to zero, and maintaining it there. The course will also explore what is needed to develop successful partnerships and how the science can assist in gaining support for policy and political will. The course will also present disease-specific topics that integrate the range of elimination science topics to demonstrate how the components of elimination science came together to help drive particular diseases to elimination or near-elimination as well as successes and challenges from existing disease elimination and eradication programs.

Course Organizer:

Kim Lindblade, PhD, MPH, Influenza Program Chief, Centers for Disease Control and Prevention, Bangkok, Thailand

Course Co-Chairs

Juliette Morgan, MD, Country Director, Centers for Disease Control and Prevention South Caucasus, Tibilisi, Georgia

Koya Allen, PhD, MS, MSPH, Infectious Disease Subject Matter Expert, Counter Biothreats Cell US European Command Headquarters, US Department of Defense, Stuttgart, Germany Richard Reithinger, PhD, MSc, Vice President, Global Health, RTI International, Washington, DC, USA

Christina Polyak, MD, MPH, Research Physician, Military HIV Research Program, Walter Reed Army Institute of Research, Washington, DC, USA

8 a.m. Light Continental Breakfast

8:30 a.m. Welcome and course logistics

8:45 a.m. The Science of Diagnostics for Disease Eradication

Kimberly Won, MPH, Health Scientist, Elimination and Control Laboratory Team, Division of Parasitic Diseases and Malaria, Centers for Disease Control and Prevention, Atlanta, Georgia, USA

9:15 a.m. **Question & Answer Session**

9:30 a.m. The Science of Modeling for Disease Eradication

Maria-Gloria Basañez, PhD, Professor of Neglected Tropical Diseases, Imperial College London, London, United Kingdom

10 a.m. **Question & Answer Session**

10:15 a.m. Coffee Break

10:30 a.m. Panel Discussion: Surveillance

Moderator: Koya Allen, PhD, MS, MSPH, Infectious Disease Subject Matter Expert, Counter Biothreats Cell, US European Command Headquarters, US Department of Defense, Stuttgart, Germany

Richard Steketee, MD, MPH, FASTMH, Director, Malaria Control and Elimination Partnership in Africa (MACEPA), PATH, Seattle, Washington, USA

Gregory Armstrong, MD, Director, Office of Advanced Molecular Detection, National Center for Emerging and Zoonotic Infectious Diseases, U.S. Centers for Disease Control and Prevention, Atlanta, Georgia, USA

11 a.m. Moderated Discussion/Question & Answer Session

11:15 a.m. **Keynote Address: "An Overview of Getting to Zero"**

Frank Richards, MD, Director, River Blindness Elimination Program, Lymphatic Filariasis Elimination Program, and Schistosomiasis Control Program, The Carter Center, Atlanta, Georgia, USA

11:45 a.m. **Question & Answer Session** Lunch (on your own) Noon The Science and Art of Community Engagement in Disease Elimination and 1:15 p.m. **Eradication** Teshome Gebre, PhD, MSc, MBA, Regional Director for Africa, Task Force for Global Health, Addis Ababa, Ethiopia **Question & Answer Session** 1:45 p.m. 2 p.m. The Economics of Disease Eradication Kimberly Thompson, ScD, President, Kids Risk and Professor, University of Central Florida College of Medicine, Orlando, Florida, USA 2:30 p.m. **Question & Answer Session** 2:45 p.m. Break 3 p.m. The Science of Political and Financial Support for Disease Eradication Ellyn W. Ogden, MPH, USAID Worldwide Polio Eradication Coordinator, Washington, DC, USA 3:30 p.m. **Question & Answer Session**

Course Adjourns

3:45 p.m.