



Global Health Pre-Meeting Course:
The Global Health Impact of Urbanization and Megacities – Trends, Risk Management and Research Needs

Sunday, October 28, 2018; 7:15 a.m. – 4 p.m.
 Sheraton New Orleans, New Orleans, Louisiana USA

This course will explore the changing worldwide landscape and global health risks with the exponential increase in urban population growth. More than half of the world's population live in urban areas, and roughly one in three urban inhabitants now live in slums or other type of informal settlements. By 2050, the world's urban population will nearly double to 6.3 billion. As urban growth continues, the impact on natural resources and public health risks will grow, compounded by climate change. Air pollution, lack of sanitation and clean water (or any water) will detrimentally impact urban populations. In addition, economic fragility and poor access to healthcare, lack of infrastructure and vulnerability to floods, earthquakes, droughts and other human-made and natural disasters increase health risks. Half of the global population lives in areas with *Aedes aegypti* mosquitoes, which are adapted to the urban landscape and is the vector for yellow fever, dengue, chikungunya and Zika viruses. Beyond vector-borne diseases, the lack of barriers between animals, vectors, the environment and water supply increases the risk of other diseases such as leptospirosis, Ebola and plague. We urgently need to be prepared for new microbial transmission pathways in the urban environment that affect human health. This course will bring together experts to discuss how to manage risks that the world will face as cities continue to grow and will attempt to answer the following questions:

- What are the drivers for urbanization that lead to increased risk of human exposure – and what are potentially successful mitigation methods?
- What is the current state of affairs in urban planning to mitigate health risks?
- How can the urban environment improve access to safe water and reduce exposure to air pollution?
- How can health assessments and health equity be improved in slums?
- How can accurate and timely data be captured that will describe urban disease transmission that will allow targeted interventions?
- What increases the risk of transmission of infectious diseases within, into and out of urban centers via animals and vectors, and what are the research gaps and successes for decreasing transmission?
- What global initiatives offer guidance and approaches to shape health-promoting urban settings to decrease infectious disease transmission?

Course Co-Chairs

Daouda Ndiaye, PhD, PharmD, FASTMH, Professor, Cheikh Anta Diop University, Hopital Aristide Le Dantec, Laboratoire de Parasitologie-Mycologie, Dakar, Senegal

Julie A. Pavlin, MD, PhD, MPH, Director, Board on Global Health, National Academies of Sciences, Engineering, and Medicine, Washington, DC, United States

Christopher Perdue, MD, MPH, Assistant Secretary for Preparedness and Response, U.S. Public Health Service, Washington, DC, United States

7:15 a.m. Light Continental Breakfast

7:45 a.m. **Introduction of Topic and Logistics**

Urban Health Dynamics

8 a.m. **Urban Health: A Global Perspective**

Jo Ivey Boufford, MD, Clinical Professor of Global Health, Clinical Professor of Pediatrics, New York University, and President, International Society of Urban Health, New York, NY, United States

8:30 a.m. **Urban Health Complexities and Inequities**

Alayne Adams, PhD, Associate Professor, Department of International Health, Georgetown University, Washington, DC, United States

9 a.m. **Case Study Part I**

9:15 a.m. Coffee Break

Urban Planning – Water, Air and Sanitation

9:30 a.m. **Health Opportunities from Clean Power and Alternative Transportation in Cities**

Jonathan Patz, MD, MPH, Professor and John P Holton Chair, and Director of the Global Health Institute, University of Wisconsin – Madison, Madison, Wisconsin, United States

10 a.m. **Water, Sanitation, and Hygiene Interventions Fit for Context: Slums and Humanitarian Response**

Daniele Lantagne, PhD, Associate Professor, Department of Civil and Environmental Engineering, Tufts University, Medford, Massachusetts, United States

10:30 a.m. **Thirsty Cities in the 21st Century: The Need for New Approaches**

Stephen Luby, MD, Professor of Medicine and Senior Fellow, Woods Institute and the Freeman Spogli Institute, Stanford University, Stanford, California, United States

11 a.m. **Panel Discussion**

11:15 a.m. **Case Study Part 2**

11:45 a.m. **Lunch (on your own)**

Health Impacts

- 1 p.m. **Emerging Infectious Disease Threats in the Urban Slum Environment**
Albert Ko, MD, Professor and Department Chair, Yale School of Public Health, New Haven, Connecticut, United States
- 1:30 p.m. **Epidemiological Shift in Developing Countries: Impact of Non-communicable Diseases and Nutrition in Urban Centers**
Sohana Shafique, MSc, MPH, PhD, Assistant Scientist and Deputy Project Coordinator, International Centre for Diarrhoeal Disease Research, Dhaka, Bangladesh
- 2 p.m. **Assessing Health System Performance in Global Cities**
Victor G. Rodwin, PhD, MPH, Professor of Health and Policy Management, New York University, New York, New York, United States

Michael K. Gusmano, PhD, Associate Professor of Health Policy, Rutgers University, School of Public Health, New Brunswick, New Jersey, United States
- 2:30 p.m. **Panel Discussion**
- 3 p.m. Coffee Break
- 3:15 p.m. **Case Study Part 3**
- 3:30 p.m. **Cross-sectional Collaboration in Urban Health in Latin America – The Observatory for Urban Health in Belo Horizonte City**
Waleska Teixeira Caiaffa, MD, PhD, MPH, Professor, Federal University of Minas Gerais, School of Medicine and Director, Observatory for Urban Health in Belo Horizonte, Brazil
- 4 p.m. Course Adjourns