



HARVARD
T.H. CHAN

SCHOOL OF PUBLIC HEALTH

Department of Global Health
and Population

5th Annual

State *of* Global Health
Symposium



Global Health
and Aging

Thursday, March 29, 2018

Rotunda, Joseph B. Martin Conference Center
77 Avenue Louis Pasteur, Boston, MA

BACKGROUND

Population aging around the world presents an unprecedented set of challenges. One key issue we are seeing, along with longer life spans, is a compression of morbidity and a delay in the onset of chronic disease, frailty, and disability. The implications of population aging for human welfare, economic progress, and health care, all turn on this central question: *is the aging we are seeing healthy aging?*

Healthy aging involves the prevention and treatment of chronic disease and the maintenance of high levels of physical functioning but also the maintenance of cognitive functioning and emotional wellbeing. The pattern of aging may differ around the world, with particular issues of aging in low-income settings, where there remains a high burden of infectious disease. Understanding how, and why, these patterns are evolving is an important first step in understanding how to address the issue of population aging.

Population aging has large implications for health care. The diagnosis and treatment of chronic diseases and provision of long-term care for the elderly are increasing the resource burdens on health care systems, particularly when long run low fertility means a declining working age population. In many countries, people are growing old before either they or their countries have had an opportunity to save for their old age. This raises important questions of setting priorities between the unfinished agenda of combating infectious disease, the prevention and treatment of illness in mothers and children, and the new demands on the system from population aging. Even within the area of non-infectious disease, prevention may be a more important factor than treatment in promoting healthy aging, with a need for public health measures outside the traditional health care system.

The symposium will aim to address both of these sets of issues, addressing what we need to know about the patterns of population aging and health in different regions of the world and the health system responses that are required to address the emerging question of population aging and population health.

AGENDA

2:00 p.m. Welcome and Opening Remarks

Wafaie Fawzi, Richard Saltonstall Professor of Population Sciences, Nutrition, Epidemiology and Global Health

Michelle Williams, Dean of the Faculty, Harvard T.H. Chan School of Public Health

2:10 p.m. Video Welcome

Tedros Ghebreyesus, Director General, World Health Organization

2:15 p.m. Keynote: Global Action to Foster Healthy Aging

John Beard, Director of Aging and Life Course Department, World Health Organization

3:00 p.m. Panel: Physical and Cognitive Effects of Aging

Lindsay Jaacks, Assistant Professor of Global Health
Arthur Kleinman, Professor of Medical Anthropology and Psychiatry

Walter Willett, Professor of Epidemiology and Nutrition

Moderated by: Goodarz Danaei, Associate Professor of Global Health

3:50 p.m. Panel: Aging and Health Systems

Rifat Atun, Professor of Global Health Systems

Uwe Sunde, Professor of Economics, University of Munich

Winnie Yip, Professor of the Practice of International Health Policy and Economics

Moderated by: David Canning, Richard Saltonstall Professor of Population Sciences

4:45 p.m. Closing Remarks and Announcement of Poster Awards

John Haaga, Director of the Division of Behavioral and Social Research, National Institute on Aging

Reception and Poster Session

SPEAKER PROFILES

Rifat Atun, MBBS, MBA is Professor of Global Health Systems in the Department of Global Health and Population at the Harvard T.H. Chan School of Public Health. Previously, Dr. Atun was Professor of International Health Management and Head of the Health Management Group at Imperial College London. Dr. Atun's research focuses on the design and implementation of health systems reforms and their impact on outcomes. His research also explores adoption and diffusion of innovations in health systems (e.g. health technologies, disease control programmes, and primary healthcare reforms), and innovative financing in global health. Dr. Atun is a co-Investigator and joint lead for the innovation work stream at the National Centre for Infection Prevention and Management at Imperial College. He is also a co-Investigator and the Theme Lead for 'Organisational Change, Sustainability and Evaluation' at Imperial College and Cambridge University Health Protection Research Unit for Antimicrobial Resistance and Healthcare Associated Infection.

John Beard, MBBS, PhD is Director of Ageing and Life Course Department at the World Health Organization (WHO). Dr. Beard holds an MD from the University of Adelaide and a PhD from the University of Sydney. Dr. Beard has been Director of WHO's Department of Ageing and Life Course since January 2009. Ageing has been identified by the World Health Assembly as a priority area of work for the WHO and Dr. Beard leads a "whole of Organization" response that draws on the extensive capacity of the Organization's many Departments, Regions and Country Offices. Dr. Beard was a lead writer and editor of the world report on ageing and health (2015), and oversaw the development of the Global strategy and action plan on ageing and health, adopted by WHO Member States in May 2016. In 2010, he launched the Global Network of Age-friendly Cities and Communities.

David Canning, PhD is Richard Saltonstall Professor of Population Sciences and Professor of Economics and International Health at the Department of Global Health and Population, Harvard T.H. Chan School of Public Health. He holds a PhD in economics from Cambridge University and has held faculty positions at the London School of Economics, Cambridge University, Columbia University, and Queen's University Belfast. Dr. Canning has carried out extensive research on the impact of health improvements on economic outcomes and served as a member of Working Group One of the World Health Organization's Commission on Macroeconomics and Health. He has also worked on the demographic dividend, looking at how changes in fertility and age structure affect macroeconomic performance.

Goodarz Danaei, MD, ScD is Associate Professor of Global Health in the Department of Global Health and Population at the Harvard T.H. Chan School of Public Health. Dr. Danaei's research focuses on estimating the effect of risk factors and preventive interventions on non-communicable disease incidence and mortality at the population level. This research uses empirical evidence on risk factor distributions from population health surveys and evidence on effect sizes from epidemiological studies. Dr. Danaei's epidemiological research applies advanced methods of causal inference to questions of comparative effectiveness research from observational data in the context of cardiovascular diseases and other non-communicable diseases. Dr. Danaei is the Chair and Director of the Bernard Lown Scholars in Cardiovascular Health Program.

Wafaie Fawzi, MBBS, MPH, MS, DrPH is the Richard Saltonstall Professor of Population Sciences, Professor of Nutrition, Epidemiology, and Global Health and Chair of the Department of Global Health and Population at Harvard T.H. Chan School of Public Health. His research has generated significant new knowledge on the discovery and translation of interventions to enhance maternal and child health and human development. He has experience in the design and implementation of randomized controlled trials and observational epidemiologic studies of perinatal health and infectious diseases, with emphasis on nutritional factors. These include examining the epidemiology of adverse pregnancy outcomes, childhood infections, and HIV/AIDS, TB and malaria among populations in Tanzania, Ethiopia, India and other developing countries. Dr. Fawzi established a Forum on Nutrition, Agriculture, and Health at Harvard that addresses and documents the existing gaps between agricultural development and its unfulfilled health and nutritional benefits. He is a co-founder of the Africa Academy of Public Health, a Harvard affiliate registered in Tanzania with the mission to improve health in the African region through collaborative research, education, and knowledge translation. He also established the Africa Research, Implementation Science, and Education (ARISE) Network, a partnership of leading academic institutions in Africa, and the China Harvard Africa Network (CHAN) to advance cutting-edge training of public health leaders in multidisciplinary fields through institutional partnership.

Tedros Adhanom Ghebreyesus, MSc, PhD was elected as WHO Director-General for a five-year term by WHO Member States at the Seventieth World Health Assembly in May 2017. Dr. Tedros has outlined five key priorities for the Organization: universal health coverage; health emergencies; women's, children's and adolescents' health; health impacts of climate and environmental change; and a transformed WHO. Prior to his election as WHO Director-General, Dr. Tedros served as Ethiopia's Minister of Foreign Affairs, where he led a comprehensive reform of the country's health system. The transformation he led as Ethiopia's Minister of Health improved access to health care for millions of people.

John Haaga, PhD is Director, Division of Behavioral and Social Research in the Division of Behavioral and Social Research (DBSR) at the National Institute on Aging. Dr. Haaga leads NIA's extramural program funding research in economics, demography, epidemiology, cognitive science and social neurosciences, behavioral genetics, and health services research related to aging. Dr. Haaga also serves as coordinator for the trans-NIH Common Fund Program in Health Economics. He teaches at the University of Maryland's School of Public Policy, and has previously taught at Georgetown University and the Defense Intelligence College. Before joining the NIA, he was Director of Domestic Programs of the NIH-funded Center for Public Information on Population Research at the Population Reference Bureau, a nonprofit research and education organization.

Lindsay Jaacks, PhD is Assistant Professor of Global Health in the Department of Global Health and Population at the Harvard T.H. Chan School of Public Health. Dr. Jaacks' research focuses on improving our understanding of the global drivers of the epidemiological transition from communicable to non-communicable diseases. Specifically, she is interested in the complex interactions between nutritional and environmental exposures within the food system and the role that these interactions play in the etiology of obesity, diabetes, and cardiovascular disease. She is a co-investigator for a large, multi-country (India, Rwanda, Guatemala, and Peru) household air pollution intervention trial. Dr. Jaacks is also working on several projects relating to understanding drivers of food choice among overweight women in low- and middle-income countries, and new approaches to quantifying the nutrition transition.

Arthur Kleinman, MD is professor of medical anthropology in the Department of Global Health and Social Medicine and professor of psychiatry at Harvard Medical School. He is the Esther and Sidney Rabb professor of anthropology in the Department of Anthropology in the Faculty of Arts and Sciences, and was appointed the Victor and William Fung director of Harvard University's Asia Center from 2008–2016. In 2011, Arthur Kleinman was appointed as a Harvard College Professor and received the 2011 Harvard Foundation Distinguished Faculty Award. He chaired the then Department of Social Medicine at HMS from 1990 until 2000, where from 1993-2001 he was the Presley Professor of social medicine, and chaired the Department of Anthropology at Harvard's Faculty of Arts and Sciences from 2004 to 2007. He has been a fellow of the Institute of Medicine of the National Academies since 1983, and of the American Academy of Arts and Sciences since 1992. He is also a Distinguished Life Time Fellow of the American Psychiatric Association. He has received an honorary doctor of science degree from York University (Canada); the Doubleday Award University of Manchester (UK); the Franz Boas award, the highest award of the American Anthropological Association; and the Wellcome Medal of the Royal Anthropological Institute (UK).

Uwe Sunde, PhD is the Chair of Population Economics at the University of Munich. He studied economics at the Universities of Warwick (England) and Munich, and obtained a PhD in economics within the European Doctoral Program in Quantitative Economics from the University of Bonn and the Universitat Pompeu Fabra in Barcelona. After obtaining his habilitation from the University of Bonn in 2008, he held a chair in macroeconomics at the University of St. Gallen until 2012. His research interests are in the fields of population economics, demographic economics, economic development, and behavioral economics.

Michelle A. Williams, ScD is Dean of the Faculty at the Harvard T.H. Chan School of Public Health. Dr. Williams' research interests lie principally, but not exclusively, in the field of reproductive and perinatal epidemiology. Dr. Williams has spent the last two decades focused on integrating epidemiological, biological and molecular approaches into rigorously designed clinical epidemiology research projects that have led to greater understandings of the etiology and pathophysiology of placental abruption, gestational diabetes, and preeclampsia. Dr. Williams' research programs were developed through (1) identifying gaps in the literature; (2) constructing methodologically rigorous, versatile and robust epidemiological data capture systems and networks (epidemiology platforms) in North America, Sub-Saharan Africa, Asia, and South America; and (3) proactively and strategically integrating biochemical and molecular biomarkers onto that epidemiology platform. The overarching goal of Dr. Williams' has been to use biological and molecular biomarkers as objective measures of exposure (e.g., dietary intake, nutritional status) and/or as validated pre-clinical proximal determinants (e.g., oxidative stress, systemic inflammation, endothelial dysfunction) of discrete outcomes of clinical, public and global health importance.

Walter Willett, MD, DrPH is Professor of Epidemiology and Nutrition at the Harvard T.H. Chan School of Public Health and Professor of Medicine at Harvard Medical School. Dr. Willett studied food science at Michigan State University, and graduated from the University of Michigan Medical School before obtaining a Masters and Doctorate in Public Health from the Harvard T.H. Chan School of Public Health. Dr. Willett has focused much of his work over the last 40 years on the development and evaluation of methods, using both questionnaire and biochemical approaches, to study the effects of diet on the occurrence of major diseases. Dr. Willett has published over 1,700 original research papers and reviews, primarily on lifestyle risk factors for heart disease, cancer, and other conditions and has written the textbook, *Nutritional Epidemiology*, published by Oxford University Press, now in its third edition. Dr. Willett is the most cited nutritionist internationally. He is a member of the National Academy of Medicine of the National Academy of Sciences and the recipient of many national and international awards for his research.

Chi-Man (Winnie) Yip, PhD is Professor of the practice of Global Health Policy and Economics in the Department of Global Health and Population at the Harvard T.H. Chan School of Public Health and also Director of the school-wide China Health Partnership. Dr. Yip was previously Professor of Health Policy and Economics at the Blavatnik School of Government, University of Oxford, and Senior Research Fellow of Green Templeton College, Oxford, where she was director of the Global Health Policy Program. Dr. Yip holds a PhD in Economics from the Massachusetts Institute of Technology. Dr. Yip's research encompasses both why health systems fail and how to improve them for the benefit of the people they serve. Her approach typically involves large-scale social experimentation of health system interventions by using experimental design to integrate the transformation of financing, incentives, organization and management. With a network of Chinese universities, Dr. Yip's ongoing research projects cover over 25 million people in the low income provinces in China.

ABSTRACTS PRESENTED AT POSTER SESSION

5:00 – 6:00 p.m. Rotunda, Joseph B. Martin Center

Assessment of Surgical Data Collection Systems in Five Primary Hospitals in Amhara, Ethiopia

M. Abate, K.R. Iverson, K. Garringer, L. Drown, J. Incorvia, O. Ahearn, M. Shrimpe, J. Meara, A. Beyene, Z. Bitew, B. Gashaw, A. Bekele*

Measuring the Spread of a Homestead Agriculture and Nutrition Intervention in Rufiji, Tanzania

Mia Blakstad, Chelsey Canavan, Alexandra Bellows, Dominic Mosha, Honorati Masanja, Margaret Kruk, and Wafaie Fawzi*

Systematic review and simulation study of estimators used in multi-site healthcare costing studies in low- and middle-income countries

Emma Clarke, Anna Vassall, Nicolas Menzies*

Tackling Eye Disease and Degeneration in Mexico: Feasibility & Impact of a Public-Private Partnership

*De Silva, S. *, Greatsinger, A., Lertsuridej, G., Hinojosa-Garza, G., Reich, M.*

A Mixed Methods Analysis on Delivery Preferences and Maternal Health Quality in Ethiopia

Alexandra Earle, Grace Chan, Daniel Bogale*

Renal Transplantation: the Guyana Experience

Ameer Farooq, Serdar Yilmaz, Kishore Persaud*

The Impact of Retirement on Health Behaviors: Evidence from China

Yunsheng Jia, Mengcen Qian*

Barriers in seeking Mental Health Services by Transgender persons in India

N. Kondapuram, S. Nithyananda, D. Muralidhar*

Individual and community level determinants of measles vaccination in Niamey, Niger: a multilevel analysis

*Mika Kuneida**

Factors that motivate otherwise healthy young adults living with HIV to access testing and treatment South Africa

R. Frederick Lambert, Catherine Orrell, David R. Bangsberg, Jessica E. Haberer*

Distribution and determinants of pneumonia diagnosis using Integrated Management of Childhood Illness guidelines: a nationally representative study in Malawi

Omolara T. Uwemedimo, Todd P. Lewis, Elsie A. Essien, Grace J. Chan, Humphreys Nsona, Margaret E. Kruk, Hannah H. Leslie*

Determinants of Healthcare Utilization by Migrant Workers in the State of Qatar

Lingrui Liu, Rifat Atun*

Exploring the association between sick child care utilization and health facility quality in Malawi

Lingrui Liu, Hannah H. Leslie, Humphreys Nsona, Margaret E. Kruk*

The Global Incidence of Epilepsy: A Systematic Review and Meta-analysis

Kerry A. Vaughan, Christian Lopez Ramos, Vivek P. Buch, Julia R. Amundson, Abbas Rattani, Michael Dewan, Kee Park*

Does knowledge of HIV status affect sexual behaviors? A longitudinal analysis of female sex workers in Uganda and Zambia

Katrina Ortblad, Daniel Kibuuka Musoke, Michael Chanda, Thomson Ngabirano, Joshua A. Salomon, Jessica Haberer, Margaret McConnell, Catherine Oldenburg, Till Barnighausen*

Strategies for Financial Sustainability of Seguro Popular

Huiling Pan, Jose Luis Gonzalez, Jazmine Garcia Delgadillo, Cinthya Ayerim Lucio García*

The Use of Measurement for Quality Improvement in First Level Units in Mexico

Magali Flores, Sumithra Krishnamurthy Reddiar, Avery Plough, Alexia S. Rivera*

A Nested Screening Procedure for Depression in Crises

Danielle N. Poole, Shirley Liao, Nathaniel A. Raymond, Ossama Zaqqot, Till Bärnighausen*

Case discussion as a strategic planning tool: Exploring medical tourism scenario at Hospital Infantil Teletón de Oncología (HITO)

Sabrina Popatia, Keri Wachter, Lourdes Vega-Vega, Irini Albanti DrPH(cand)*

Variability in WASH Conditions in a Postpartum Ward at a Rural District Hospital in Rwanda

Katharine Robb, Leila Dusabe, Marthe Kubwimana, Theoneste Nkurunziza, Fredrick Kateera, Robert Riviello, Bethany Hedt–Gauthier*

Comparative outcomes of PCTA in Diabetic versus Non Diabetic patients: Observational Study

B. Duggal, A. Avhad, A. Dalvi, S. Saunik, M. Rajivlochan, A. Aggarwal, U. Ram, P. Vyas, M. Warbhuwan*

Effectiveness of Community Management of Acute Malnutrition (CMAM) in Maharashtra, India

S. Saunik, M. Phadke, R. Nair, J. Khosla, T. Patel, A. Ganesh6, R. Bhoys*

Race-based trends in ICU opioid prescription: A decade in review using MIMIC-III v1.4

*Seranne Motilal, Shravanthi M. Seshasayee**

Patient (Mis-)Perceptions of Healthcare Quality and the Choice of Providers

Zeina Ali Siam, Margaret McConnell, Jessica Lee Cohen*

Diagnoses from an Emergency Care Center in Rural Kenya

Sebastian Suarez, Hiren Patel, Joseph Owuor, Lance Shaull, Jeffrey Edwards, Zaid Altawil, Debora Rogo, Thomas F. Burke*

**Submitting authors*