Data Science for Global Health: Training the Next Generation of Analysts

Meeting Agenda

Tuesday, 3rd May, 2022
14:00 to 17:40 CET
Auditorium Campus Biotech (Building H.5), Chem. des Mines 9, 1202 Genève

Time	*Title*	*Speaker*
14:00 - 14:10	Welcome address	Dr. Samira Asma
14:10 - 14:25	Keynote	Prof. Sir. Richard Peto
14:25 - 14:55	University of Oxford: Introduction to the Richard Doll Consortium	Prof. Sarah Lewington
	University of Geneva: Introducing the GRAPH Network EpiGraphHub: a visual analytics platform for epidemiological analysis	Prof. Olivia Keiser; Prof. Flavio Coelho
14:55 - 15:10	Long COVID - a prospective cohort study in Thailand	Dr. Viroj Tangcharoensathien (online)
15:10 - 15:20	Q&A	
15:20 - 15:35	*Coffee Break*	
15:35 - 15:45	The Need for Analysis Training in WHO AFRO Member Countries	Dr. Benido Impouma
15:45 - 16:10	Proposal for the Oxford/ UNIGE Global Capacity-Strengthening Partnership	Kene Nwosu Laure Vancauwenberghe Dr. Hubert Lam Dr. Jennifer Carter
16:10- 16:55	Q&A Questions from the general audience about the partnership and projects	Fielded by: Dr. Steve MacFeely Prof. Sarah Lewington Prof. Olivia Keiser Dr. Benido Impouma Dr. Samira Asma
16:55 - 17:40	*Reception*	

Speakers and Moderators

Dr. Samira Asma, from the United States of America, is the Assistant Director-General for Data, Analytics and Delivery for Impact where she leads the organization's efforts to establish the results framework for accountability and using timely, reliable and actionable data to drive progress towards the Triple Billion targets and health-related Sustainable Development Goals (SDGs). Dr. Asma brings more than 25 years of experience in building country capacity and meaningful partnerships that lead public health programs and policies to catalyze substantial and measurable long-term impact. Dr. Asma re-joined WHO in 2018 as the Director for Health Metrics and Measurement. Prior to joining WHO, Dr. Asma served in leadership positions at the U.S. Centers for Disease Control and Prevention for over two decades. By building successful collaborations, she established global programs on tobacco control, noncommunicable diseases, environmental health, and injuries. Dr. Asma has contributed to more than 100 publications, books and policy papers on global health and public health surveillance and is internationally recognized as a scientific and policy expert on preventing leading risk factors that cause premature deaths and making a measurable impact in countries.

Sir Richard Peto, FRS, is Emeritus Professor of Medical Statistics and Epidemiology at the University of Oxford. He was made a Fellow of the Royal Society of London in 1989 for introducing meta-analyses of randomized trials, was knighted by Queen Elizabeth in 1999 for services to epidemiology and received the Cancer Research UK and the BMJ Lifetime Achievement Award in 2010 and 2011. Peto has recently collaborated in major studies of alcohol in Russia and of malaria in Africa and India. His investigations into the worldwide health effects of smoking and benefits of stopping at particular ages have helped to communicate effectively the vast and growing burden of disease from tobacco use, have helped change national and international attitudes about smoking and public health, and have helped many smokers to stop. He was the first to describe clearly the future worldwide health effects of current smoking patterns, predicting one billion deaths from tobacco in the present century if current smoking patterns persist, as against 'only' 100 million in the 20th century.

Prof. Olivia Keiser is an Associate Professor of Epidemiology at the Institute of Global Health, University of Geneva and the Director of the GRAPH Network. Dr. Keiser is also the Head of the Infectious Diseases and Mathematical Modelling Division where her group takes an interdisciplinary research approach by combining mathematical modelling (including cost-effectiveness analyses), analyses of cohort data, data- and text mining, systematic reviews, and qualitative research techniques. Predominant areas of focus include HIV, tuberculosis, and COVID-19; however, the group is expanding their work to other infectious diseases and is interested in studying the interaction between communicable and non-communicable diseases. The overall aim is to get a better understanding of the "human factors" that may led to the spread of infectious diseases.

Kene Nwosu is an epidemiologist and data scientist in the division of Infectious Diseases and Mathematical Modelling at the Institute of Global Health, University of Geneva. He holds a Bachelor's degree in Biology from Vassar College (New York) and a Master of Science in Global Health from the University of Geneva. As a former teacher and passionate data analyst, he is leading the development of the online Training Platform of the GRAPH Network. In addition, he conducts analysis on the SWISS COVID-19 and Flu patient database (CH-SUR) and works on a project investigating the cascade of HIV care among key populations in Nigeria.

Prof. Flavio Coelho is an associate professor of Mathematical Epidemiology at Getulio Vargas Foundation in Rio de Janeiro, Brazil. He has in-depth experience working with the Ministry of Health in Brazil and has strong skills in software development and mathematical and computational models. He specialized in the analysis of vector-borne diseases. Currently, he is a visiting researcher with Professor Olivia Keiser's group at the University of Geneva and he leads the development of the EpiGraphHub.

Speakers and Moderators

Prof. Sarah Lewington is Professor of Epidemiology and Medical Statistics in the Clinical Trial Service Unit & Epidemiological Studies Unit (CTSU), University of Oxford, Senior Research Fellow at Green Templeton College and a Distinguished Professor at the National University of Malaysia (UKM) Medical Molecular Biology Institute (UMBI). Professor Lewington leads the Global Population Studies Group at CTSU studying the major avoidable causes of premature adult mortality (particularly tobacco, alcohol, blood pressure and obesity) in low- and middle- income countries. She co-ordinates the Richard Doll Consortium which aims to support and build the local capacity required to conduct epidemiological studies in low-resourced settings. Such studies generate the reliable epidemiological evidence from diverse populations required to inform national and global health strategies for cost-effective control of non-communicable diseases. Over the past 20 years, the group has developed several international collaborations and is the Oxford-based lead for studies conducted in Russia, Cuba and India, involving >1M participants.

Sarah is also Scientific Director for the MSc in Global Health Science and Epidemiology, and Director of Graduate Studies. Sarah is a member of the WHO's Reference Group on Health Statistics and co-chairs the Task force for Risk Factors.

Dr. Benido Impouma is the Director of the Communicable and Noncommunicable Cluster at the WHO Regional Office for Africa where he is responsible for coordinating and leading the programs on HIV/TB, viral hepatitis, sexually transmitted infections, noncommunicable diseases, vaccine-preventable diseases, and tropical and vector-borne diseases. Dr. Impouma is a public health specialist with more than 15 years of extensive regional and international experience in the development, implementation, monitoring, evaluation, and coordination of international public health programs in areas such as neglected tropical diseases, health emergency preparedness and response, HIV, TB, and malaria. He is also committed to building relationships and strengthening partnerships and collaboration with governments, donor agencies, pharmaceutical companies, research institutions, nongovernmental organizations and other stakeholders in the international health community to strengthen health systems across the region. Dr. Impouma has been widely published in academic journals and has written many policy papers, strategies, standard operating procedures, and other guiding documents on international health regulations, epidemic- and pandemic-prone diseases, emergency operations centers, and prevention and case management of neglected tropical diseases. Most recently, he led the Health Emergencies Information and Risk Assessment Program.

Laure Vancauwenberghe is a Life Science Engineer with a specialization in Health and Programming working as a Global Health Data Analyst at the Institute of Global Health, University of Geneva. Passionate about impactful scientific work, her main research interests include untreated problematics from lower- and middle-income countries, specifically in the areas of health, migration, human rights, and digitalization. Within this domain, Ms. Vancauwenberghe is also part of the GRAPH Network Training Program development team; with the support and funding of WHO, to build pandemic-response capacities in Sub-Saharan Africa by teaching the R programming language with an orientation towards epidemiological analysis.

Dr. Hubert Lam is an Associate Professor and Course Director for the MSc in Global Health Science and Epidemiology at the University of Oxford, providing leadership and overseeing the day-to-day management of the MSc course and the associated PGCert in Statistics and Epidemiology. In 2020, Dr. Lam was elected as an Honorary Fellow of the Faculty of Occupational Medicine at the Royal College of Physicians of Ireland in recognition of his contribution to the teaching of epidemiology in the occupational medicine community. He is also an epidemiologist at the Clinical Trial Service Unit and Epidemiological Studies Unit and a visiting research fellow at the Born in Guangzhou Cohort Study Department, Guangzhou Women and Children's Medical Center. He is currently leading the Environmental Epidemiology research theme within the China Kadoorie Biobank, investigating the health effects of environmental exposures (primarily air pollution and sub-optimal temperature). His main research interest is in the development and application of new technology in enhancing environmental exposure assessment to help better quantification of health burdens. Between 2010 and 2016, Dr. Lam was a co-opted member of the Quantification of Health Effects of Air Pollutants Sub-Committee under the governmental advisory Committee on the Medical Aspects of Air Pollutants (COMEAP).

Speakers and Moderators

Dr. Jennifer Carter is an Associate Course Director for the MSc in Global Health Science and Epidemiology at the University of Oxford. She provides lectures, tutorials, and assessments as a module lead for both the Statistics and Epidemiology modules on this course. She also coordinates the Summer Lecture Series, short courses in epidemiology and statistics, and is the director of the Oxford Research Introduction programme (OxREIN). As a Senior Research Fellow, Dr. Carter's current research examines the measurement and influence of adiposity, dietary intake and other vascular risk factors with the risk of cardiovascular disease in large, prospective studies around the globe. She is currently a research member of the common room for Kellogg College. Before coming to Oxford, Dr. Carter's previous research examined psychosocial influences on the development of socioeconomic inequalities in mental and physical health across the life course. In 2017, Dr. Carter won the Medical Sciences Division Early Career Teaching Excellence Award. She also won 'Most Acclaimed Lecturer of the Year' in 2018 for the Oxford Student Union student-led teaching awards. In 2021, she was awarded the "Senior Fellow of the Higher Education Academy" (SFHEA) title for her leadership in the promotion of teaching excellence.

Dr. Beat Stoll is a Senior Lecturer at the Institute of Global Health, University of Geneva. His principal domain in Global Health is teaching and training. Dr. Stoll is affiliated as a staff member of the Master in Advanced Studies of Public Health at the University in Geneva and coordinated the domain of health in the MAS of Humanitarian Action over a five-year period. He also contributed at the medical faculty of Yaoundé (Cameroon) to the establishment of a teaching unit in community health, is a member of the committee for the HELP course (Health Emergencies for Large Populations) at ICRC and is active as a teacher and expert at the Swiss TPH. Finally, in collaboration with EssentialMed and EPFL, he is building up training for medical imaging for staff of resource-poor countries. In collaboration with WHO and the Novartis Foundation for Sustainable Development (NFSD) in Basel, he is engaged in the dissemination of IMCI training (Integrated Management of Childhood Illnesses) by the e-learning tool ICATT in several African and Asian countries and recently started a program for continuing medical education of primary health care physicians in Albania in collaboration with SwissTPH and SDC. The domain of research and development is linked to the development of primary health care in tropical countries. Dr. Stoll was engaged as a regular consultant at WHO in the domain of the cholera prevention, worked with the International Federation of Red Cross and Red Crescent Societies in the area of tuberculosis and is the head of the medical cooperation with Cameroon where numerous projects are ongoing. Other research is related to medical communication in rural Mali (together with NFSD), mental health service implementation for teenage mothers in Cameroon and the development of appropriate medical devices (digital x-ray, neonatal incubator) with EssentialMed (globaldiagnostix.org and globalneonat.org).

Prof. Antoine Flahault is a Professor of Public Health at the School of Medicine, University of Geneva where he is the founding Director of the Institute of Global Health. Prof. Flahault was also the founding director of the French School of Public Health (EHESP, Rennes, 2007-2012), co-director of Centre Virchow-Villermé for Public Health Paris-Berlin (Université Descartes, Sorbonne Paris Cité), co-director of the European Academic Global Health Alliance (EAGHA), president of the Agency for Public Health Education Accreditation (APHEA), and was elected corresponding member at Académie Nationale de Médecine (Paris). He has conducted research focused on the mathematical modelling of communicable diseases, chaired the WHO collaborative center for electronic disease surveillance, coordinated research on Chikungunya in the Indian Ocean (Inserm Prize, 2006), and was the scientific curator of a large exhibition Epidemik, la Cité des Sciences et de l'Industrie (Paris, Rio and Sao Paulo). Since January 2014, he has had more than 235 scientific publications referenced in Medline.