HONG KONG PUBLIC HEALTH FORUM 2015

Extracting Meaning from Data: Cohorts and Deep Analytics

24 October 2015 | 1400 - 1820
Cheung Kung Hai Conference Centre, Li Ka Shing Faculty of Medicine Building, 21 Sassoon Road, Pokfulam, Hong Kong
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Welcome

Message from Professor Gabriel M Leung
Dean, Li Ka Shing Faculty of Medicine, The University of Hong Kong

It gives me great pleasure to welcome you to the Fifth Hong Kong Public Health Forum on 2015.

The advent of big data as the potential to revolutionize biomedical discovery, translational medicine and patient care. In the last 5 years alone, the number of journal articles published annually on the subject of big data on PubMed has exponentially increased from 100 to over 10,000. While many have posted on the big data conundrum, there have been no formal effort to address the need for this big data and its potential to change the way we think about healthcare and social care.

In recent years, an over-arching aim of the Forum is to consider the value to population health of cohort studies and the application of new analytic techniques to enhance and improve the quality, quantity and impact of data. In the Hong Kong Public Health Forum this year, consider the 'value for money' of cohorts, the reliability and validity of current analytical techniques and the role of new public health strategies in informing improvements in the generation of relevant evidence. Prof. Leung "cohort" and "deep analytics" as the theme of the Hong Kong Public Health Forum this year.

The Fifth Hong Kong Public Health Forum 2015 presents an excellent opportunity for all stakeholders to participate in the issues surrounding "cohorts and deep analytics," and we have meaningfully engaged with a variety of transdisciplinary academics in clinical research and public health evidence.

We are very grateful to have Professor Mika Ala-Korpela and Professor Zhengming Chen, two eminent international colleagues in the area of big data and population health sciences to share their insights with us at the Forum. They will be joined by fourteen other colleagues of our School, a number of them belonging to the younger generation of researchers with great potential to be the future leaders in academic public health.

Dean, Li Ka Shing Faculty of Medicine, The University of Hong Kong

Message from Professor Malik Peiris
Director, School of Public Health, The University of Hong Kong

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Dean, Li Ka Shing Faculty of Medicine, The University of Hong Kong
## CME/CPD Accreditations

CME/CPD accreditations from the respective Colleges:

<table>
<thead>
<tr>
<th>College/Association</th>
<th>Max. for whole function</th>
<th>CME/CPD Category</th>
</tr>
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<tbody>
<tr>
<td>Hong Kong College of Anaesthesiologists</td>
<td>3.58</td>
<td>Non-anaesthesia</td>
</tr>
<tr>
<td>Hong Kong College of Community Medicine</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>College of Dental Surgeons of Hong Kong</td>
<td>3.5</td>
<td>Cat C</td>
</tr>
<tr>
<td>Hong Kong College of Emergency Medicine</td>
<td>3.5</td>
<td>PP</td>
</tr>
<tr>
<td>Hong Kong College of Family Physicians</td>
<td>3</td>
<td>Cat 5.2</td>
</tr>
<tr>
<td>Hong Kong College of Obstetricians and Gynaecologists</td>
<td>Pending</td>
<td></td>
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<tr>
<td>College of Ophthalmologists of HK</td>
<td>Nil</td>
<td></td>
</tr>
<tr>
<td>Hong Kong College of Orthopaedic Surgeons</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Hong Kong College of Otorhinolaryngologists</td>
<td>2</td>
<td>Cat 2.2</td>
</tr>
<tr>
<td>Hong Kong College of Paediatricians</td>
<td>3</td>
<td>Cat E</td>
</tr>
<tr>
<td>Hong Kong College of Pathologists</td>
<td>2</td>
<td>PP</td>
</tr>
<tr>
<td>Hong Kong College of Physicians</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>Hong Kong College of Psychiatrists</td>
<td>3.5</td>
<td>PP/OP</td>
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<tr>
<td>Hong Kong College of Radiologists</td>
<td>3.5</td>
<td>Cat B</td>
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<tr>
<td>College of Surgeons of Hong Kong</td>
<td>3.5</td>
<td>Passive</td>
</tr>
<tr>
<td>CME Programme for practising doctors who are not taking CME programme for specialists</td>
<td>3</td>
<td></td>
</tr>
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Programme

**Extracting Meaning from Data: Cohorts and Deep Analytics**

24 October 2015 (Saturday)

Cheung Kong Hui Conference Centre
William M.W. Mong Block, Li Ka Shing Faculty of Medicine Building
21 Sassoon Road, Pokfulam, Hong Kong

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Speaker</th>
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<tbody>
<tr>
<td>1545 - 1605</td>
<td>Plenary Session 1: History of Southern Chinese Cohorts</td>
<td>Creating Cohorts: Challenges and Successes</td>
<td>Prof Tai Hing Lam (Robert Emmett Professor in Public Health and Chief Professor of Community Medicine, School of Public Health, HKU)</td>
</tr>
<tr>
<td>1610 - 1620</td>
<td>Vignettes</td>
<td>Exploiting family designs to understand the “UCI - Health, Happiness, Harmony (FAMILY) Cohort”</td>
<td>Dr Michael Nai (Clinical Assistant Professor, School of Public Health, HKU)</td>
</tr>
<tr>
<td>1620 - 1630</td>
<td>Vignettes</td>
<td>What can we learn from Hong Kong’s elderly?</td>
<td>Dr Jane Leong (Clinical Assistant Professor, School of Public Health, HKU)</td>
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<tr>
<td>1630 - 1645</td>
<td>Vignettes</td>
<td>Epidemiological transition in action: Guangzhou Biobank Cohort Study</td>
<td>Drشهي (Ying) (Research Assistant Professor, School of Public Health, HKU)</td>
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<tr>
<td>1645 - 1700</td>
<td>Vignettes</td>
<td>Crossing different West vs East</td>
<td>Dr Maggie Kook (Research Assistant Professor, School of Public Health, HKU)</td>
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<tr>
<td>1700 - 1900</td>
<td>Plenary Session 2: Deep Analytics</td>
<td>Making more of the data we have</td>
<td>Dr C Mary Schooling (Associate Professor and Cluster Leader of Non-communicable Diseases in Global Health, School of Public Health, HKU)</td>
</tr>
<tr>
<td>1900 - 1900</td>
<td>Vignettes</td>
<td>Bioinformatics</td>
<td>Dr Herbert Pang (Assistant Professor, School of Public Health, HKU)</td>
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<td>1900 - 1900</td>
<td>Vignettes</td>
<td>From paper (or lips) to policy - Identification of innovations</td>
<td>Dr Ryan Au Young (Post-doctoral Fellow, School of Public Health, HKU)</td>
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<tr>
<td>1900 - 1900</td>
<td>Vignettes</td>
<td>Pictures speak a thousand words: understanding data</td>
<td>Dr Chi Kin Chow (Research Assistant Professor, School of Public Health, HKU)</td>
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<tr>
<td>1900 - 1900</td>
<td>Vignettes</td>
<td>Household flu studies</td>
<td>Dr Eric Lau (Assistant Professor, School of Public Health, HKU)</td>
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<tr>
<td>1900 - 1900</td>
<td>Vignettes</td>
<td>Sherlock: tricks pedophiles using phonograms</td>
<td>Dr Tommy Lau (Assistant Professor, School of Public Health, HKU)</td>
</tr>
<tr>
<td>1900 - 1900</td>
<td>Vignettes</td>
<td>Explaining behaviour: the ‘ghost’ in my room in epidemiology and theory</td>
<td>Dr Qiyan Liu (Research Assistant Professor, School of Public Health, HKU)</td>
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<tr>
<td>1900 - 1900</td>
<td>Closing Session</td>
<td>Keynote Speech: Kagga</td>
<td>Prof CheongSoon Chua (Professor of Epidemiology and Director of China Programme, Clinical Trials Service Unit and Epidemiological Studies Unit, Nuffield Department of Population Health, University of Oxford)</td>
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<tr>
<td>1900 - 1900</td>
<td>Closing Remarks</td>
<td>The Way Forward</td>
<td>Prof Gabriel L Leung (Chief Professor of Public Health Medicine, Dr. Lui Lai Yee Faculty of Medicine, HKU)</td>
</tr>
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Enquiry

HONG KONG PUBLIC HEALTH FORUM 2015

Extracting Meaning from Data: Cohorts and Deep Analytics

26 October 2015 | 1400 - 1820
Cheung Kong Hui Conference Centre, Li Ka Shing Faculty of Medicine Building, 21 Sassoon Road, Pokfulam, Hong Kong

Keynote Speakers:
- Prof. Wai Chiu Lam
- Prof. Zhongming Chen
- Prof. Siu-lung Leung
- Prof. Enrico Leung
- Dr. Mary S. K. Wai

Plenary Session 1: History of Southern Chinese Cohorts
Challenges of creating cohorts: evidence from local cohorts, characteristics of each cohort study managed by HKU School of Public Health, East Asia Biobank project, and the story and impact of managing cohorts.

Plenary Session 2: Deep Analytics
From big data to deep analytics to make sense of the data we have. Data for analytics, novel approaches to precision medicine, phenotyping, biomarker discovery, applications across the field.

Latest information on the forum is at:
http://sph.hku.hk/phforum2015/

Contact Person: Ms. Karen Lau (+852 3917 9028), Ms. Yannes Tang (+852 3917 9139)
Fax: +852 2855 9528
Email: hkusph@hku.hk
Address: 5/F, William MW Mong Block, Li Ka Shing Faculty of Medicine Building, 21 Sassoon Road, Pokfulam, Hong Kong
HONG KONG PUBLIC HEALTH FORUM 2015

Extracting Meaning from Data: Cohorts and Deep Analytics

24 October 2015 | 1400 - 1820
Cheung Kung Hai Conference Centre, Li Ka Shing Faculty of Medicine Building, 21 Sassoon Road, Pokfulam, Hong Kong
HRU School of Public Health hosts the Fifth Hong Kong Public Health Forum on “Extracting Meaning from Data: Cohorts and Deep Analytics” and pays tribute to Professor TH Lam

The School of Public Health, Li Ka Shing Faculty of Medicine of The University of Hong Kong (HKU) hosts the fifth Hong Kong Public Health Forum today. The theme of the Forum is on “Extracting Meaning from Data: Cohorts and Deep Analytics” and pays tribute to Professor TH Lam. The programme comprised two plenary sessions, viz, “Plenary Session 1: History of Southern Chinese Cohorts” by Professor Tai Hing Lam and “Plenary Session 2: Deep Analytics” by Dr C Mary Schooling.

Opening Keynote by Professor Mika Ala-Korpela

The opening keynote was given by Professor Mika Ala-Korpela, Professor of Computational Medicine at the Institute of Health Sciences, University of Oulu and Visiting Professor of the Institute of Health and Biomedical Engineering, The Hong Kong Polytechnic University. Professor Ala-Korpela spoke on the role of omics profiling in epidemiology, public health and future medicine. Professor Ala-Korpela remarked that “large-scale omics profiling will transform our understanding of diseases and thereby also improve the effectiveness of targeted medical interventions and public health strategies.”

Closing Keynote by Professor Zhengming Chen

Closing Remarks by Professor Gabriel M Leung

Keynote speakers of the School.

In his key address, Professor Leung said, “While big data is great, it is often misunderstood as the be all and end all.” Using its various long-running cohort studies, the University has made significant contributions through its research and advocacy to improve the health of populations and individuals, both locally and globally. The School is a leading research and teaching hub in public health on influenza and other emerging viruses, control of infectious and non-communicable diseases, tobacco control, air pollution, psycho-oncology, behavioral sciences, life-course epidemiology, and health economics, health services planning and management. This work has led our School firmly on the world map of epidemiological research on non-communicable diseases (NCD), especially in tobacco control. On the occasion of this year’s public health forum, we salute him for his sustained and exceptional contributions to promoting the art and science of public health practice and community health, "remarked Professor Peiris.

About the School of Public Health, Li Ka Shing Faculty of Medicine, HKU

With world leading research in infectious diseases as well as on non-communicable diseases of both local and global importance, the School has made significant contributions to our understanding of the public health implications of NCD and infectious disease, facilitating improvements in the prevention of NCD. Subsequent to Professor Ala-Korpela’s keynote address, Professor TH Lam and Dr Mary Schooling, Associate Professor of Epidemiology and Biostatistics at the School of Public Health, highlighted the challenges and successes of creating cohorts and on how we can make more of the data we have. Their presentation were followed by vignettes from eleven invited speakers of the School.

Wrapping up the proceedings, Professor Ala-Korpela thanked the school for organizing the event and also expressed his gratitude to Ms Yannes Tang (Tel: 3917 9139) of the School of Public Health, Li Ka Shing Faculty of Medicine of HKU. Professor Ala-Korpela said, “I am deeply appreciative to the School and its staff for organizing this event and also for the support and assistance they have provided.”

Closing Remarks by Professor Gabriel M Leung

The School of Public Health, Li Ka Shing Faculty of Medicine, HKU has a long and distinguished history in public health education and high impact research.

The School of Public Health, Li Ka Shing Faculty of Medicine of HKU. Professor Peiris said, “While big data is great, it is often misunderstood as the be all and end all.” Using its various long-running cohort studies in Hong Kong and Southern China, Professor Leung affirmed that HKU School of Public Health and its two invited keynote speakers have elucidated how we can go beyond big data to deep analytics to make more of the data we have and to help formulate specific disease prevention and control strategies.

Professor Leung also said, “I hope that the public health forum will provide an opportunity for scholars and researchers to meet and exchange ideas, and also provide an opportunity for the School to engage with the public and other stakeholders regarding public health issues.”

For media enquiries, please contact Ms Yannes Tang (Tel: 3917 9139) of the School of Public Health, Li Ka Shing Faculty of Medicine of HKU.
Prof Mika Ala-Korpela

**Professor of Computational Medicine, Institute of Health Sciences, University of Oulu; and Professor of Computational Medicine, School of Social and Community Medicine, Medical Research Council Integrative Epidemiology Unit, University of Bristol**

**Biography**

Dr Mika Ala-Korpela is a Professor of Computational Medicine at the Medical Faculty, University of Oulu, Finland and at the School of Social and Community Medicine, University of Bristol, UK. He is one of the senior staff at the UK Medical Research Council Integrative Epidemiology Unit at the University of Bristol ([http://www.bristol.ac.uk/integrative-epidemiology/about/](http://www.bristol.ac.uk/integrative-epidemiology/about/)).

His research focuses on lipoprotein and lipid metabolism, development and applications of multivariate data analysis methods for metabolic phenotyping and risk assessment, and the utilisation of various ‘omics technologies in clinical and systems epidemiology to study the aetiology of metabolic diseases. He has published around 150 articles in international peer-reviewed journals. Professor Ala-Korpela has more than two decades of experience in biomedical nuclear magnetic resonance (NMR) spectroscopy and has pioneered high-throughput applications of NMR-based metabolomics in molecular epidemiology and functional genetics. He is one of the founders of Brainshake Ltd., a company offering NMR-based metabolic profiling ([http://www.brainshake.fi](http://www.brainshake.fi)).

During the last ten years, Professor Ala-Korpela’s Computational Medicine Research Team has focused on developing an NMR-based quantitative high-throughput metabolomics platform for human serum and plasma. This novel methodology has now been used to analyse over 300,000 serum samples (in about 6.5 years). The methodology provides information on around 250 metabolic measures with clear biochemical interpretation and significance. This platform has recently been applied in various large-scale epidemiological and genetic studies, the results of which have been published in the leading scientific journals. Several new NMR laboratories are currently being set up to apply the aforesaid metabolomics platform in large-scale epidemiology and systems medicine; more and up-to-date information at [http://computationalmedicine.fi](http://computationalmedicine.fi).
Prof. Zhengming Chen

Professor of Epidemiology and Director of China Programmes, Clinical Trial Service Unit and Epidemiological Studies Unit, Nuffield Department of Population Health, University of Oxford

Biography

Zhengming Chen qualified in medicine at Shanghai Medical University in 1983 (now Fudan University), and gained his PhD in Epidemiology at the University of Oxford in 1993. He was appointed as Professor of Epidemiology by the University of Oxford in 2006. He is now the Director of the China Programs at Oxford University's Clinical Trial Service Unit and Epidemiological Studies Unit (CTSU) and executive co-director of the China Oxford Centre for International Health Research based at China National Centre for Cardiovascular Diseases in Beijing. He is also an honorary professor of Peking Union Medical College and Fudan University in China.

His main research focuses on the environmental and genetic causes of chronic disease, evidence-based medicine and evaluation of widely practicable treatments for chronic diseases (such as IHD, stroke and cancer) as well as efficient strategies for chronic disease control in developing countries. Over the past 15 years, he has initiated and led several large randomised trials in heart disease (50,000 patients), acute stroke (20,000 patients), cancer (15,000 patients) and 3 cohort studies involving more than 750,000 individuals. He initiated the China Kadoorie Biobank, and has been the lead principal investigator in the UK for it since 2002, which involves over 512,000 adults from 10 diverse regions of China with extensive data collection by questionnaire and physical measurements, and with long-term storages of biological samples, including DNA, for future research use. This, together with the UK Biobank, represent uniquely powerful and rich resources ever established in the world that will allow scientists from around the world to make novel discoveries about the genetic and non-genetic causes of many conditions. He has published over 150 research papers, with many in the top rank journals such as Lancet, JAMA, NEJM, Nature Medicine, Eur Heart J and BMJ, and also sits on various research committees.
Prof Gabriel M Leung

Chair Professor of Public Health Medicine cum Dean, LKS Faculty of Medicine, HKU

Biography

Gabriel Leung became the fortieth Dean of the Li Ka Shing Faculty of Medicine in August 2013. Leung, a clinician and a respected public health authority, is also Chair Professor and Director of the WHO Collaborating Centre in Infectious Disease Epidemiology and Control in the School of Public Health. During 2008-12, he served as Hong Kong’s first Under Secretary for Food and Health and fifth Director of the Chief Executive’s Office in government. Leung is one of Asia’s leading epidemiologists, having authored more than 380 scholarly papers and edited numerous journals.

Leung specialises in the field of public health medicine, a statutorily accredited specialty that covers the full range of public health sciences and their constituent disciplines. Within the broad scope of public health medicine, his major interests revolve around topics that 1) have major population health impact locally, 2) where Hong Kong is a reliable and unique epidemiologic sentinel for mainland China, or 3) where Hong Kong is particularly endowed and best placed to address the fundamental science at hand. As such his research crosses the traditional boundaries of individual disciplines or fields of enquiry.

Specifically, for over a decade, his team has leveraged on several ongoing largescale cohort studies, namely the "Children of 1997" birth cohort, Elderly Health Services cohort, Guangzhou Biobank Cohort Study and FAMILY cohort, to test a series of novel hypotheses based on a socio-historical perspective of life course epidemiologic theory. These investigations have proposed novel insights about the fundamental biologic pathways leading to common non-communicable diseases, namely cardiovascular disease and Type II diabetes, with global health relevance.

Leung established and directed the University’s Infectious Disease Epidemiology Group since the time of the 2003 SARS epidemic and led Hong Kong government’s efforts against pandemic H1N1 in 2009.

A third and final component of his research programme is health systems and policy research, where his team has been responsible for national health accounting for the Hong Kong government and as consultant to governments throughout the region.
Prof Tai Hing Lam

Sir Robert Kotewall Professor in Public Health and Chair Professor of Community Medicine, School of Public Health, HKU

Biography

Professor TH Lam graduated from the University of Hong Kong with MBBS in 1975, was awarded an MSc degree in medical sociology and an MSc degree in occupational medicine in 1980 and 81 respectively from The University of London and has his MD by research from The University of Hong Kong in 1988. He was Head of the Department of Community Medicine (2000-12) and Director of School of Public Health (2009-13), The University of Hong Kong.

Professor Lam’s research interests are on epidemiology and control of noncommunicable diseases with a major focus on tobacco control. He is principal investigator of several major epidemiological studies, including the Hong Kong Lifestyle and Mortality Study (40,000 subjects), Guangzhou Occupational Cohort Study (160,000 subjects), Hong Kong 1997 Birth Cohort Study (8,300 subjects), Hong Kong Elderly Health Services Cohort Study (60,000 subjects), Guangzhou Biobank Cohort Study (30,000 subjects) and FAMILY project (A Jockey Club Initiative for a Harmonious Society with a donation of HKD250 million). Since the introduction of zero wine and beer tax in Hong Kong in 2008, he has been involved in alcohol control and related research. He has published over 600 papers in international peer reviewed journals.

Professor Lam is one of the world’s leading scientists on tobacco control. His scientific contributions have been translated into important benefits to public health and tobacco control internationally. He has contributed to four WHO reports, on secondhand smoke and child health, policy recommendations for smoking cessation, adherence to long term therapies, and smokefree policies, and one IARC report on reversal of risk after quitting. He is the lead researcher of numerous research projects and his publications cover a wide range of important areas, including health hazards and economic costs of smoking and passive smoking, youth smoking, role of health professionals in tobacco control and training, smoking cessation and public opinion surveys, and E-cigarettes.
Dr C Mary Schooling

Associate Professor and Cluster Leader of Non-communicable Diseases in Global Health, School of Public Health, HKU

Biography

C Mary Schooling is an Associate Professor in the School of Public Health at the University of Hong Kong. She leads the Non-communicable disease in global health research cluster in the School of Public Health, and has been heavily involved in setting up and exploiting some of their key cohorts. She obtained a PhD in Epidemiology from University College London in 2001, and an MA in Pure Maths and Medieval History from St Andrews, where she was awarded the Carstairs Prize for Pure Maths. Her main research concerns using an evolutionary biology approach to generate a model of population health and secondly exploiting the differences in disease patterns between East and West to gain etiologic insights of relevance to both settings. Past projects include assessing the role of growth patterns and body composition in long-term health, the role in health of key beverages, such as alcohol and milk, and the role of testosterone in cardiovascular disease, which contributed to recent warnings about cardiovascular risk on testosterone by Health Canada and the Food and Drug Administration in the United States. Current projects, also stemming from her model of population health, include the long-term effects of vitamin A supplementation, identifying why so many disparate factors, including cholesterol and G6PD deficiency, appear to have opposite effects on diabetes and ischemic heart disease and examining the role of haematocrit in hypertension and ischemic heart disease. This vibrant research program is supported by a very engaged team of research postgraduate students and post-doctoral fellows, and has generated over 150 papers in the last 10 years. C Mary Schooling is also a Professor at the City University of New York School of Public Health. She is a member of the grant review board of the Health and Medical Research Fund in Hong Kong. She is also an associate editor of the Journal of Epidemiology and Community Health and a member of the Advisory Board for Social Science and Medicine.
Dr Ryan Au-Yeung

Biography

Ryan Au Yeung is currently a Post-doctoral Fellow in the School of Public Health, the University of Hong Kong. He obtained his Bachelor of Science (Biology) in 2007 and Master of Public Health with Distinction in 2008 from the University of Hong Kong, and PhD in 2012 from the School of Public Health, the University of Hong Kong.

His main research interests are the health effects of alcohol use at moderate levels, risk factors of cardiovascular diseases, and causal inferences using different methodological approaches, in particular instrumental variable analysis using genetic instruments (Mendelian randomization analysis). His research is mainly based on a large Southern Chinese older Cohort (Guangzhou Biobank Cohort Study (GBCS)) in Guangzhou, China. He is currently involved in the management of the "Children of 1997" Birth Cohort in person follow up in Hong Kong, China. He is currently the principal investigator of a Health and Medical Research Fund (HMRF) under the Research Grants Council of HKSAR examining the role of age at menarche and cardiovascular risk factors using Mendelian randomization analyses.
Dr Chi-kin Chow

Biography

Dr Chi Kin Chow received the B.E., M.Phil., and Ph.D. degrees from the Department of Electronic Engineering, The Chinese University of Hong Kong, Hong Kong, China, in 1999, 2001 and 2005, respectively.

He was a Research Assistant and a Senior Research Assistant with the Department of Electronic Engineering at City University of Hong Kong in 2005 and 2006, respectively. From 2007 - 2012, he also held the post of a Research Fellow with the same department. He joined the School of Public Health at HKU as a Research Officer in 2012 and is promoted to Research Assistant Professor in April 2014.

His current research interests include mathematical modelling, neural networks architecture, pattern recognition and machine learning, evolutionary computation, computer vision and image processing, and self-organising system. He has published more than 30 research papers, which includes papers in IEEE Transactions on Evolutionary Computation, International Journal of Computer Vision, and Pattern Recognition. He has served as Program Committee Member in 8 international conferences.
Dr Connie Hui

Biography

Dr Connie Hui is a Research Assistant Professor in the School of Public Health, University of Hong Kong. She has been working with the large, population-representative Hong Kong Chinese birth cohort "Children of 1997" since 2005. She played a key role in implementing the resurrection of the original study in 2005 including the crucial data linkage with routinely collected data. Her research interests focus on the early origins of health and diseases in the nonwestern settings. She has examined the relation of early life exposures, including fetal and infant growth, prematurity and maternal living conditions, with health and development into adolescence. Dr Hui is currently actively involved in the clinical follow-up of the "Children of 1997" cohort and setting up a biobank to elucidate the developmental origins of obesity, diabetes and cardiovascular disease, particularly the epidemiological stage specific determinants of disease patterns and population health.
Dr Maggie Kwok

Biography

Dr Kwok is a Research Assistant Professor in the School of Public Health. She earned her Ph.D. degree from the University of Hong Kong in 2010. She has been a key member of the research team of the Hong Kong Chinese birth cohort: "Children of 1997" since joining the School in 2006. Dr Kwok has been at the forefront of exploiting the non-Western developed setting of the "Children of 1997" birth cohort to provide new information about key public health issues such as the role of breastfeeding in child health. She has been at the forefront of the application of state-of-the-art statistical approaches. She focuses on the roles of intergenerational and early life exposures on child health with the aim of identifying key interventions during this window for cardiovascular disease prevention. She is currently considering the relative contributions of size and growth on adolescent blood pressure, and the roles of family and neighbourhood socioeconomic influences on adolescent physical and mental health. She is also dissecting out the secular trends of blood pressure and body mass index in Hong Kong children and adolescents.
Dr Tommy Lam

Biography

Dr Lam received his BSc (major in bioinformatics) and PhD in molecular virology in The University of Hong Kong. He then went to Pennsylvania State University and University of Oxford for further postdoctoral training in statistical genetics, before he joined the School of Public Health in 2013.

Dr Lam's main research interest is the evolution, ecology and epidemiology of pathogens that cause human and animal diseases. He is particularly interested in their emergence and the dynamics at the human-animal interface. Dr Lam is regarded as a viral phylogeneticist who studies the viral genomic data using state-of-the-art phylogenetic methods to track the virus transmission and evolution in host populations.

While the influenza virus is his major research subject, Dr Lam has also worked on other human and animal pathogens including HIV, Norovirus, EV71, NDV and PRRSV.
Dr Eric Lau

Biography

Eric Lau is an Assistant Professor in the School of Public Health of the University of Hong Kong. Dr Lau obtained his PhD in Statistics from the same university, with a focus on statistical inference from epidemiological data. Dr Lau’s research interests are in studying the transmission dynamics and impact of control measures on infectious diseases on human and avian population, and drawing inference from multiple surveillance data sources for situation awareness of disease activity.

Dr Lau’s latest projects focus on characterization of the impact of health-seeking behaviour on infectious disease surveillance, transmission dynamics of handfoot-mouth disease linking schools and households, and optimization of surveillance strategy of avian influenza in live poultry markets.
Dr June Leung

Biography

Dr June Leung joined the School of Public Health as Clinical Assistant Professor in August 2013. She obtained her medical degree from The University of Hong Kong in 2008, and was awarded the Teng Pin Hui Prize in Community Medicine. Dr Leung worked as Medical and Health Officer at the Department of Health from 2009 to August 2013. She completed her Master of Public Health at The University of Hong Kong with distinction in 2012. She was awarded Associate Fellowship by the Hong Kong College of Community Medicine in 2012, and continues to pursue her specialist training in Public Health Medicine. Her research interests include lifecourse epidemiology and the epidemiology of non-communicable diseases, focusing on cohort studies including the "Children of 1997" birth cohort and the Elderly Health Service cohort. She currently coordinates and teaches courses in Evidence-Based Practice for the undergraduate and postgraduate public health curriculum.
Dr Qiuyan Liao

Biography

Dr Qiuyan Liao is a Research Assistant Professor in the Division of Behavioural Sciences, School of Public Health, The University of Hong Kong. She has more than five years’ research experience in behavioural and psychological response to newly emerging infectious diseases including avian influenza A/H5N1, the 2009 influenza A/H1H1 pandemic and avian influenza A/H7N9. She has significantly contributed to developing theory-based approaches involving modifications of existing behavioural theories and methods derived through structural equation modeling to understand public risk perception and behavioural response to epidemic threats. Her current research interests include risk communication, risk perception and behavioural health.
Dr Michael Ni

Biography

Dr Michael Ni joined the School of Public Health as Clinical Assistant Professor in August 2012. After obtaining his medical degree from HKU, Dr Ni trained in internal medicine at Queen Mary Hospital and pursued postgraduate studies at Harvard University. He obtained his Membership of the Royal College of Physicians of the United Kingdom, Associate Fellowship of the Hong Kong College of Community Medicine, and is the recipient of the American College of Chest Physicians Prize.

Dr Ni is Programme Director for the FAMILY Cohort, a territory-wide cohort study on individual- and household-level health, happiness and family harmony. He maintains active collaborations in chronic disease and psychiatric epidemiology locally and internationally, and has contributed as a reviewer for various international journals. Dr Ni contributes to teaching in the undergraduate medical and postgraduate public health curricula. His research interests include chronic disease epidemiology, psychiatric epidemiology, lifestyle and lifecourse epidemiology.
Dr Herbert Pang

Biography

Dr Pang joined the School of Public Health in 2013 after working as an Assistant Professor for over five years in the Department of Biostatistics and Bioinformatics at Duke University. He obtained his PhD in Biostatistics from Yale University in 2008 and BA in Mathematics and Computer Science from the University of Oxford in 2002.

His primary research interests include big data, biomarker discovery in clinical studies, cancer genomics, classification and prediction methods, design and analysis of clinical trials, machine learning, and meta-analysis. He is currently a co-principal investigator on an NIH R21 grant entitled 'Translational Meta-analysis for Elderly Lung Cancer Patients' from the National Institute on Aging, and a principal investigator on an HMRF grant entitled 'Comparative Effectiveness Analysis of Lung Cancer Data from Randomized Clinical Trials and Observational Studies' from the Food and Health Bureau.
Dr Shelly Xu

Biography

Dr Shelly Xu got her Bachelor of Medicine degree on 2005 and a MPH degree with distinction on 2008. She obtained her PhD degree on Epidemiology from the School of Public Health in 2012 and joined the School as a Post-doctoral Fellow. After 3 years' training, she was appointed as a Research Assistant Professor in April 2015.

Her broad area of research is non-communicable chronic disease, specifically diabetes and cardiovascular disease epidemiology in older people. She has used different epidemiological methods, including Mendelian randomization and meta-analysis to identify causal factors, and risk prediction models to identify predictors of cardiovascular disease and diabetes. Her research interest also lies in looking at the health effect of sex hormones, especially testosterone and estrogen on cardiovascular health.