

# CPCE Health Conference 2023 Programme Book

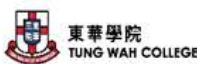
## Trends and Challenges in Healthcare Professional Management in Hong Kong and the Greater Bay Area 香港及大灣區醫療保健專業管理的趨勢與挑戰

**Date** : 22 April 2023 (Saturday)  
**Time** : 9:15 am - 5:30 pm (HKT)  
**Venue** : UG06, PolyU Hung Hom Bay Campus,  
8 Hung Lok Road, Hung Hom, Kowloon (Face-to-Face)  
Zoom Meeting (Online)



Learn more

### Supporting Organisations (in alphabetical order)





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## I. INTRODUCTION

The College of Professional and Continuing Education (CPCE) of The Hong Kong Polytechnic University (PolyU), incorporating the School of Professional Education and Executive Development (SPEED) and the Hong Kong Community College (HKCC), is currently the largest self-financing tertiary education provider in Hong Kong. It has around 10,000 full time students. It offers a range of programmes in many different disciplines including health related programmes at Associate Degree and Honours Bachelor's Degree levels.

This Conference is the eighth CPCE Health Conference since 2016 and it has the theme of “**Trends and Challenges in Healthcare Professional Management in Hong Kong and the Greater Bay Area**”. The conference is funded by the Professional Services Advancement Support Scheme of the Government of the Hong Kong Special Administrative Region.

Speakers for the Keynote Presentations include: (1) **Professor Toshihiko HASEGAWA**, President, Future Health Research Institute, Japan, to speak on “*Strategic Management of Healthcare in an Ageing Society: Experience from Japan*”, (2) **Professor Peter P. YUEN**, Dean, College of Professional and Continuing Education, The Hong Kong Polytechnic University, to speak on “*Healthcare Reform Challenges and Potentials: The Way Forward for Hong Kong and the GBA*”, (3) **Dr Zhanming LIANG**, Associate Dean of Research Education, College of Public Health, Medical and Veterinary Science, James Cook University, Australia, to speak on “*Developing a Competency Framework for Hospital Administrator: Experience of Australia*”, (4) **Professor Gordon LIU**, Peking University BOYA Distinguished Professor of Economics, PKU National School of Development & Dean, PKU Institute for Global Health and Development, China, to speak on “*Observations on Healthy China 2023*”, (5) **Dr Hui ZHANG (Vivienne)**, Associate Professor, Department of Health Policy and Management, Sun Yat-sen University, China, to speak on “*Direct Economic Burden of Alzheimer's Disease and Parkinson's Disease Among Patients Covered by Health Insurance in GBA*”, (6) **Professor Cecilia L. W. CHAN**, Professor Emeritus, Department of Social Work and Social Administration, The University of Hong Kong, (7) **Dr POON Tak Lun**, Consultant, Department of Rehabilitation, International Medical Center, The University of Hong Kong - Shenzhen Hospital, to speak on “*Patient Empowerment in GBA – What can we do?*”, (8) Dr Sabrina Ching Yuen LUK, Assistant Professor, School of Social Sciences, Nanyang Technological University, Singapore, to speak on “*Ageing in Place via Telehealth: A case study of Singapore*”, and (9) **Dr The Honourable LAM Ching-choi, SBS, JP**, Chief Executive Officer, Haven of Hope Christian Service, Hong Kong, to speak on “*Manpower Challenge in the Healthcare Industry within HK and GBA*”.

Speakers for the plenary sessions include: (1) **Professor LI Sheung Wai, Leonard**, Honorary Clinical Professor, Department of Medicine, The University of Hong Kong, to speak on “*Rehabilitation Services in an Ageing Society: Potentials in Hong Kong and GBA*”, and (2) **Dr CHAN Chung Yee Hubert, JP**, Chairman & CEO, HKC International Holdings Limited,

Hong Kong, to speak on “*Integrated Home Care & Inpatient Computer System for Hospice & Palliative Care*”.

There are six parallel sessions containing a wide range of important topics pertinent to leadership and strategic development, communications and relationship management, professional and social responsibility, health and healthcare environment, business development opportunities, as well as challenges and development of rare disease management and policy.

## II. ORGANISATION OF CONFERENCE

### Conference Chairs

**Professor Peter P. YUEN**

Dean, College of Professional and Continuing Education (CPCE);  
Professor, Department of Management and Marketing, The Hong Kong Polytechnic University

**Dr S. H. LIU**

President,  
Hong Kong College of Health Service Executives (HKCHSE)

### Conference Organiser

College of Professional and Continuing Education, PolyU

### Organising Committee

Chair	<b>Dr Ben Y. F. FONG</b> , Associate Division Head and Professor of Practice (Health Studies), Division of Science, Engineering and Health Studies, PolyU CPCE
Members	<b>Dr Simon T. Y. CHEUNG</b> , Head, Continuing Education Office, PolyU CPCE <b>Dr Vincent T. S. LAW</b> , Senior Lecturer, Division of Social Sciences, Humanities and Design, PolyU CPCE <b>Dr Oscar W. K. CHIU</b> , Senior Lecturer, Division of Science, Engineering and Health Studies, PolyU CPCE <b>Dr Fowie NG</b> , Vice President, Hong Kong College of Health Service Executives <b>Dr Flora KO</b> , Academic Convenor, Hong Kong College of Health Service Executives <b>Ms SC CHIANG</b> , Council Member, Hong Kong College of Health Service Executives
Secretary	<b>Ms Kay CHIU</b> , Programme Manager, Continuing Education Office, PolyU CPCE <b>Mr Tommy K. C. NG</b> , Project Associate, Centre for Ageing and Healthcare Management Research (CAHMR), PolyU CPCE

### Scientific Committee

Chair	<b>Dr Simon T. Y. CHEUNG</b> , Head, Continuing Education Office, PolyU CPCE
Members	<b>Ms SC CHIANG</b> , Council Member, Hong Kong College of Health Service Executives <b>Dr Oscar W. K. CHIU</b> , Senior Lecturer, Division of Science, Engineering and Health Studies, PolyU CPCE

**Dr Flora KO**, Academic Convenor, Hong Kong College of Health Service Executives

**Dr Vincent T. S. LAW**, Senior Lecturer, Division of Social Sciences, Humanities and Design, PolyU CPCE

**Dr Fowie NG**, Vice President, Hong Kong College of Health Service Executives

## **Collaborating Organisation and Supporting Organisations**

### **Collaborating Organisation**

- Hong Kong College of Health Service Executives (HKCHSE)

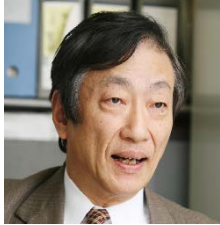
### **Supporting Organisations (in alphabetical order)**

- Centre for Health Education and Health Promotion, The Chinese University of Hong Kong
- College of Pharmacy Practice
- Department of Rehabilitation Sciences, The Hong Kong Polytechnic University
- Department of Applied Science, Hong Kong Institute of Vocational Education (Kwai Chung)
- DoctorNow NEEDS
- Gain Miles Assurance Consultants Limited
- Greater Bay Area Medical Alliance
- HKMA Institute of Healthcare Management
- Hong Kong Association of Family Medicine and Primary Health Care Nurses
- Hong Kong College of Community and Public Health Nursing
- Hong Kong College of Community Health Practitioners
- Hong Kong College of Nursing and Health Care Management
- Hong Kong Institute of Asia-Pacific Studies, The Chinese University of Hong Kong
- Hong Kong Public Administration Association
- Hong Kong Society for Rehabilitation
- Hong Kong Telemedicine Association
- Human Health HK Limited
- Rare Disease Hong Kong
- School of Chinese Medicine, The Chinese University of Hong Kong
- Sik Sik Yuen
- Society for Health Administration Programs in Education, Australia
- Society for Innovative Healthcare HK

- Society for the Promotion of Hospice Care
- Tung Wah College

### III. PROGRAMME

#### Speakers



**Professor Toshihiko HASEGAWA**

*President, Future Health Research Institute, Japan*

#### *Strategic Management of Healthcare in an Ageing Society: Experience from Japan*

Prof. Toshihiko Hasegawa, M.D., MPH., Ph.D. is President of Future Health Research Institute since 2014, and retired Professor of Nippon Medical School after a long career in Japanese government including development of elderly care policy and management of Japanese national hospitals. He graduated from Harvard School of Public Health for MPH in 1981, from Osaka University Medical School for MD in 1972, and finished General Surgical Residency in Milwaukee, Wisconsin. He taught at many medical schools in Japan as visiting professor for health policy and hospital management. He did research on health policy, health sector reform, planning and evaluation of disease management program, hospital strategic management, international health and integrated community care system. He started the legendary network of health policy researchers in Asia “Dragon Net” in 1998 and is currently involved in a project on “Health for next 120 years” by Japanese Association of Medical Sciences. Prof. Hasegawa published many papers and books about ageing society, international health, health policy, hospital management, health care delivery system and safety and quality of care including the Hospital Strategic Management in 2002 that was translated in Korean, Thai, Russian and Chinese and the International Symposium on Health Transition and Health Sector Reform in Asia in 1998, and Health Care System Reform and Health Policy Research in Japan: Health Care Policy in East Asia Volume 2, a World Scientific Reference in 2020.



**Professor Peter P. YUEN**

*Dean, College of Professional and Continuing Education (CPCE);  
Professor, Department of Management and Marketing, The Hong Kong  
Polytechnic University*

BA, MBA [S.U.N.Y. (Buffalo)]; PhD (Birm.); FCHSM (Aust.)

#### *Healthcare Reform Challenges and Potentials: The Way Forward for Hong Kong and the GBA*

Prof. Peter P. Yuen is Dean of the College of Professional and Continuing Education (PolyU CPCE) of The Hong Kong Polytechnic University (PolyU). He is also Professor of PolyU's



Department of Management and Marketing. He received his Bachelor of Arts degree in Cellular and Molecular Biology and Master in Business Administration degree from the State University of New York at Buffalo, USA, and his Doctor of Philosophy degree in Health Economics from the University of Birmingham, UK.

Prior to his appointment as Dean of CPCE, Prof. Yuen held a number of management positions at PolyU, including Associate Vice-President (Management), Director of the Public Policy Research Institute, and Head of the Department of Management. He was also the Founding Director of the Doctor of Business Administration programme in the Faculty of Business.

Prof. Yuen's research mainly focuses on public policy formulation and evaluation, and health services management. He is the Co-Editor-in-Chief of Public Administration and Policy and an Editorial Committee member of Asia Pacific Journal of Health Management. He was also a consultant for the Hong Kong Special Administrative Region (HKSAR) Government and the Bauhinia Foundation on a number of public policy related projects including the West Kowloon Cultural District, Sustainable Built Environment, Subsidised Homeownership, Managed Care in Hong Kong, and Health Systems Reform.

Prof. Yuen is currently the immediate Past Chairman of the Federation for Self-financing Tertiary Education (Hong Kong). He has served as a member of the HKSAR Government Manpower Development Committee, Health and Medical Development Advisory Committee, and the Committee on Self-financing Post-secondary Education. He is a Founding Fellow of the Hong Kong College of Health Service Executives, and an Honorary Fellow of the Australian College of Health Services Management. He once served as Vice-President of the Chinese National Institute of Health Care Management Education, and President of the Hong Kong Public Administration Association.



**Dr Zhanming LIANG**

*Associate Dean of Research Education, College of Public Health, Medical and Veterinary Science, James Cook University, Australia*

### ***Developing a Competency Framework for Hospital Administrator: Experience of Australia***

Dr Liang is a leading researcher in management competency and management workforce development in the health sector with expertise in healthcare quality and patient safety, project planning and evaluation, evidence-informed decision-making, and health system design and improvement. Dr Liang has trained many managers and leaders working in different health sectors in developing their management capacity in Australia and South-East Asia for the past decade. As President of the Society for Health Administration Programs in Education, Dr Liang has played a leading role in shaping the health management workforce capacity development in Asia Pacific.

Dr Liang was medically trained and worked as a physician, planning and evaluation consultant and senior manager before embarking her academic career and completed a PhD (health reforms and management workforce development) at Griffith University and Graduate Certificate in Safety, Quality, Informatics and Leadership at Harvard University. The Management Competency Assessment Tool (MCAP Tool) that Dr Liang and colleagues developed and validated has been used to assess the competence of middle and senior level managers and leaders working in the health sector providing evidence to guide management capacity building in the system, organisation and individual levels.



**Professor Gordon LIU**

*Peking University BOYA Distinguished Professor of Economics, PKU National School of Development & Dean, PKU Institute for Global Health and Development, China*

### ***Observations on Healthy China 2023***

Prof. Gordon G. Liu, PhD., is Peking University BOYA Distinguished Professor of Economics at PKU National School of Development, Dean of PKU Institute for Global Health and Development, Director of PKU China Center for Health Economic Research, Academic Committee Chair for PKU Institute of Educational Economics, and 2022 elected member of the Chinese Academy of Medicine. For social responsibilities, Prof. Liu currently serves as co-organizer for the “US-China Track II Dialogue on Health”, and sits on the China National Expert Panel on COVID19, and the State Council Health Reform Advisory Commission. He also has served as associate editor for academic journals including China Economic Quarterly, Health Economics, and the Editor-in-Chief for China Journal of Pharmaceutical Economics. Prior to joining Peking University, he was on fulltime faculty at University of Southern California, and University of North Carolina at Chapel Hill. He was the 2004-2005 President of Chinese Economists Society (CES), and the 2004-2006 President of ISPOR Asian Pacific Consortium.



**Dr Hui ZHANG (Vivienne)**

*Associate Professor, Department of Health Policy and Management, School of Public Health, Sun Yat-sen University, China*

### ***Direct Economic Burden of Alzheimer's Disease and Parkinson's Disease Among Patients Covered by Health Insurance in GBA***

Dr Hui Zhang is Associate Professor in the Department of Health Policy and Management,

School of Public Health, Sun Yat-sen University of China. Her research interests are health insurance reform, economic burden of diseases, health policy evaluation, and cost-effectiveness analysis. She is now the member of Health Insurance Professional Committee of the Chinese Society of Health Economics; the member of Health Services Management Division of the Chinese Preventive Medicine Association; and the member of Guangdong Province Society of Health Economics. She has got more than 10 grants including the National Natural Science Foundation of China; the Natural Science Foundation of Guangdong Province; China Medical Board Open Competition Research Project, and published more than 30 international and domestic journals such as Social Science & Medicine, BMC Health Services Research.



**Professor Cecilia Lai Wan CHAN**

*Professor Emeritus, Department of Social Work and Social Administration, Founding Director and Associate Director, Centre on Behavioral Health, The University of Hong Kong*

#### ***Patient Empowerment in GBA – What can we do?***

Professor Chan is a pioneer in promotion of community health and patient empowerment in Hong Kong. She had contributed to the establishment of the Community Rehabilitation Network of Hong Kong Society for Rehabilitation, Alliance of Patients' Self-help Organizations, Cancer Support Services of the Hong Kong Cancer Fund, community bereavement support services of the Society for the Promotion of Hospice Care and Hospital Patients' Resource Centers in public hospitals in Hong Kong since the 1990s. Professor Chan is instrumental in promoting holistic care for patients throughout their trajectory of illness, from prevention, health awareness raising, early diagnosis, living with disabilities, chronic disease self-management, active rehabilitation, end-of-life and bereavement care. She adopted a strength-based approach to promote resilience and transformation through pain, patient survivors reach out to empower other newly diagnosed patients. Her research provided evidence on the cost-efficacy of patient empowerment programs in saving expansive hospital bed-days and improving quality of life. She founded the Centre on Behavioral Health which incorporated Eastern philosophies and Traditional Chinese Medicine practices into her patient Integrative Body-Mind-Spirit (IBMS) empowerment programs which can lead to biomarkers such as salivary cortisol as well as IL6 and telomerase in blood.



**Dr POON Tak Lun**

*Consultant, Department of Rehabilitation, International Medical Center, The University of Hong Kong - Shenzhen Hospital*

#### ***Patient Empowerment in GBA – What can we do?***

Dr Poon is an expert in community rehabilitation, disaster relief, emergency management, dedicated to social services as a volunteer to Red Cross and Hong Kong Society for Rehabilitation... He is an expert in orthopedics and rehabilitation, he had served in the Queen Mary Hospital and the University of Hong Kong.

Dr Poon is currently Consultant in orthopedics and rehabilitation in the HKU-Shenzhen Hospital. He spent a lot of time working with patients as well as explaining to the family on the treatment goals and rehabilitation plans. Dr Poon also extends his clinical care to the Yee Hong Height in Shenzhen. Yee Hong Height is a long stay care facility for older adults from Hong Kong. The residents receive financial support from the Hong Kong Government. This is one of the first GBA social-medical collaboration in the past decades.

Being a caring and committed medical doctor, Dr Poon initiated a lot of innovative care programs in Hong Kong and China such as support for injured workers throughout their process of rehabilitation, crisis management especially in cases of natural disaster and chaos with large numbers of injuries and trauma.



**Dr Sabrina Ching Yuen LUK**

*Assistant Professor, School of Social Sciences, Nanyang Technological University, Singapore*

### ***Ageing in Place via Telehealth: A case study of Singapore***

Dr Sabrina Luk is Assistant Professor in Public Policy and Global Affairs, School of Social Science, Nanyang Technological University, Singapore. She holds a PhD in Political Science and International Studies from the University of Birmingham. Her teaching includes healthy ageing, public health, e-government, crisis leadership and management. Her research focuses on healthy ageing, health financing reforms, e-government and smart cities. Dr. Luk is the leading contributor to the UNESCAP report on Evolution of Science, Technology and Innovation Policies for Sustainable Development: The Experiences of China, Japan, the Republic of Korea and Singapore. Her monograph entitled Ageing, Long-term Care Insurance and Healthcare Finance in Asia was published by Routledge in January 2020. In 2022, she published a monograph entitled Ageing and Effecting Long-term Care in China (with Hui Zhang and Peter Yuen) (New York: Routledge).



**Professor Leonard Sheung Wai LI**

*Honorary Clinical Professor, Department of Medicine, The University of Hong Kong*

### ***Rehabilitation Services in an Ageing Society: Potentials in Hong Kong and GBA***

Prof. Leonard S. W. Li is currently the Director of Virtus Neurological Rehabilitation Centre. He is also appointed as Honorary Clinical Professor of Department of Medicine, LKS Faculty of Medicine, The University of Hong Kong. He has been closely linked with the rehabilitation development in Mainland China in last 30 years and appointed as Advisor to the Chinese Association of Rehabilitation Medicine. Locally, he is also taking the position of Chairman of the Hospital Governing Committee of Shatin Cheshire Home. Internationally, he is the Immediate-Past President of International Society of Physical and Rehabilitation Medicine and Advisor of the Division of Rehabilitation of Cochrane Research. He was also President of World Federation for NeuroRehabilitation (WFNR) in Year 2018-2021. He received the Award of Honorary Membership from WFNR this year for cognition of his work in the field of Neurological Rehabilitation internationally.



**Dr CHAN Chung Yee Hubert, JP**

*Chairman & CEO, HKC International Holdings Limited, Hong Kong*

### ***Integrated Home Care & Inpatient Computer System for Hospice & Palliative Care***

Dr Chan Chung Yee Hubert, JP is the Chairman of HKC International Holdings Limited. Dr Chan joined the Group in 1984 and is responsible for the formulation of corporate strategies and business and product development of the Group.

Dr Chan has over 35 years of experience in ICT industry. Under his leadership, the Group was listed in The Stock Exchange of Hong Kong Limited in 2001 (Stock code: 248). The Group is now engaged in distribution and retail of digital products, product development of RFID, home automation, and AIoT in healthcare sector in Hong Kong, China and the Asia Pacific Region. Further, Dr Chan is very active in promoting the ICT industry in Hong Kong. He had served in the Executive Committee of Communications Associations of Hong Kong for over 10 years and was elected as the Chairman of the association from 2006 – 2012. Dr. Chan is also the Chairman of GS1 Hong Kong EPC Partners Advisory Board for 2010-2012, the Chairman of Advisory Committee of Green ICT Consortium (2009-2011), the Council member of Hong Kong Federation of Youth Group (since 2010). He is the Council member of Society for the Promotion of Hospice Care (since 2005) and elected as Chairman from 2017-2020. Dr Chan also awarded The Hong Kong Polytechnic University's Ninth "Outstanding Alumni Award" to tribute to his remarkable professional achievements and contributions to his alma mater as well as the community. Dr Chan has been appointed as a member of Communications Authority in

2020.



**Dr The Honourable LAM Ching-choi, SBS, JP**

*Chief Executive Officer, Haven of Hope Christian Service, Hong Kong*

### ***Manpower Challenge in the Healthcare Industry within HK and GBA***

Dr Lam Ching-choi is a specialist in paediatric and community medicine and is currently the Chief Executive Officer of Haven of Hope Christian Service. Under his leadership, Haven of Hope Christian Service is one of the pioneers in the provision of holistic care for the elderly in Hong Kong.

Dr Lam is a non-official member of the Executive Council of the Government of the Hong Kong Special Administrative Region. He also served as the Chairman of the Elderly Commission and the Council for Sustainable Development to advise the Government on the related policies. He is also the Supervisory Board Member of the Hong Kong Housing Society. Dr Lam was awarded the Silver Bauhinia Star in 2019. Apart from receiving Honorary Fellowship from Lingnan University in 2018, he was also given the Ageing Asia Global Ageing Influencer Award (Special Recognitions) for his devotion to public services and his influence on policy-making for the global ageing trend.



## Moderators of Keynote and Plenary Presentations



**Professor Peter P. YUEN**

*Dean, College of Professional and Continuing Education (CPCE);  
Professor, Department of Management and Marketing, The Hong Kong  
Polytechnic University*



**Dr S. H. LIU**

*President, Hong Kong College of Health Service Executives*



**Dr Ben Y. F. FONG**

*Associate Division Head and Professor of Practice (Health Studies),  
Division of Science, Engineering and Health Studies, PolyU CPCE;  
Director, Centre for Ageing and Healthcare Management Research  
(CAHMR), PolyU CPCE*



**Dr Fowie NG**

*Vice President, Hong Kong College of Health Service Executives*



**Dr Vincent T. S. LAW**

*Senior Lecturer, Division of Social Sciences, Humanities and Design,  
PolyU CPCE; Deputy Director, Centre for Ageing and Healthcare  
management Research (CAHMR), PolyU CPCE*



**Dr Flora KO**

*Academic Convenor, Hong Kong College of Health Service Executives*



**Dr Simon T. Y. CHEUNG**

*Head, Continuing Education Office, PolyU CPCE*



**Ms S. C. CHIANG**

*Council Member, Hong Kong College of Health Service Executives*



**Dr Oscar CHIU**

*Senior Lecturer, Division of Science, Engineering and Health Studies,  
PolyU CPCE*

## Moderators of Parallel Sessions

### Session A: Leadership and Strategic Development



Mr Stephen LEUNG

Council Member, Hong Kong Management Association

### Session B: Communications and Relationship Management



Dr Cecilia SIT

Senior Lecturer, The University of Hong Kong

### Session C: Professional and Social Responsibility



Dr Arthur SHAM

Council Member, Hong Kong College of Health Service Executives

### Session D: Health and Healthcare Environment



Dr Wai Kwong POON

Senior Lecturer, Tung Wah  
College

### Session E: Business Development Opportunities



Dr Fowie NG

Vice President, Hong Kong College of Health Service Executives

### Session F: Challenges and Development of Rare Disease Management and Policy



**Dr S. H. LIU**

President, Hong Kong  
College of Health Service  
Executives

**Mr Samuel MAK**

Council Member, Society  
for Innovative Healthcare  
Hong Kong

## Programme Rundown

Time	Event
9:00 am – 9:15 am	<b>Registration and Coffee</b>
9:15 am – 9:45 am	<b>Opening Remarks</b> <b>Prof. Peter P. YUEN</b> ( <i>Conference Chair and Dean, PolyU CPCE</i> )
	<b>Welcoming Address</b> <b>Ir Prof. Christopher CHAO</b> ( <i>Vice President (Research and Innovation), PolyU</i> )
<b>KEYNOTE PRESENTATION I - III</b>	
9:45 am – 10:05 am	<b>Strategic Management of Healthcare in an Ageing Society: Experience from Japan</b> <b>Professor Toshihiko HASEGAWA</b> ( <i>President, Future Health Research Institute, Japan</i> )
	<u>Moderator:</u> <b>Prof. Peter P. YUEN</b> ( <i>Conference Chair and Dean, PolyU CPCE</i> )
10:05 am – 10:25 am	<b>Healthcare Reform Challenges and Potentials: The Way Forward for Hong Kong and the GBA</b> <b>Prof. Peter P. YUEN</b> ( <i>Conference Chair and Dean, PolyU CPCE</i> )
	<u>Moderator:</u> <b>Dr S. H. LIU (President, HKCHSE)</b>
10:25 am – 10:45 am	<b>Developing a Competency Framework for Hospital Administrator: Experience of Australia</b> <b>Dr Zhanming LIANG</b> ( <i>Associate Dean of Research Education, College of Public Health, Medical and Veterinary Science, James Cook University, Australia</i> )
	<u>Moderator:</u> <b>Dr Ben Y. F. FONG</b> ( <i>Associate Division Head and Professor of Practice (Health Studies), PolyU CPCE</i> )
10:45 am – 11:00 am	<b>Morning Tea Break</b>
<b>KEYNOTE PRESENTATIONS IV - VII</b>	
11:00 am – 11:20 am	<b>Observations on Healthy China 2023</b> <b>Prof. Gordon LIU</b> ( <i>Peking University BOYA Distinguished Professor of Economics, PKU National School of Development &amp; Dean, PKU Institute for Global Health and Development, China</i> )
	<u>Moderator:</u> <b>Dr Fowie NG</b> ( <i>Vice President, HKCHSE</i> )
11:20 am – 11:40 am	<b>Direct Economic Burden of Alzheimer's Disease and Parkinson's Disease Among Patients Covered by Health Insurance in GBA</b> <b>Dr Hui ZHANG (Vivienne)</b> ( <i>Associate Professor, Department of Health Policy and Management, Sun Yat-sen University, China</i> )
	<u>Moderator:</u> <b>Dr Vincent T. S. LAW</b> ( <i>Senior Lecturer, PolyU CPCE</i> )
11:40 am – 12:00 pm	<b>Patient Empowerment in GBA – What can we do?</b> <b>Prof. Cecilia L. W. CHAN<sup>a</sup> and Dr POON Tak Lun<sup>b</sup></b> <i><sup>a</sup>Professor Emeritus, Department of Social Work and Social Administration, The University of Hong Kong</i> <i><sup>b</sup>Consultant, Department of Rehabilitation, International Medical Center, The University of Hong Kong - Shenzhen Hospital</i>

	<p>Moderator:  <b>Dr Flora KO</b> (<i>Academic Convenor, HKCHSE</i>)</p>
12:00 pm –	<b>Ageing in Place via Telehealth: A case study of Singapore</b>
12:20 pm	<p><b>Dr Sabrina Ching Yuen LUK</b> (<i>Assistant Professor, School of Social Sciences, Nanyang Technological University, Singapore</i>)</p>
	<p>Moderator:  <b>Dr Simon CHEUNG</b> (<i>Head, Continuing Education Office, PolyU CPCE</i>)</p>
12:20 pm –	<b>Discussion</b>
12:45 pm	<p>Moderator:  <b>Prof. Peter P. YUEN</b> (<i>Conference Chair and Dean, PolyU CPCE</i>)</p>
12:45 pm –	<b>Lunch</b>
2:20 pm	
<b>PLENARY PRESENTATION I - II</b>	
2:20 pm –	<b>Rehabilitation Services in an Ageing Society: Potentials in Hong Kong and GBA</b>
2:35 pm	<p><b>Prof. Leonard Sheung Wai LI</b> (<i>Honorary Clinical Professor, Department of Medicine, The University of Hong Kong</i>)</p>
	<p>Moderator:  <b>Ms SC CHIANG</b> (<i>Council Member, HKCHSE</i>)</p>
2:35 pm –	<b>Integrated Home Care &amp; Inpatient Computer System for Hospice &amp; Palliative Care</b>
2:50 pm	<p><b>Dr CHAN Chung Yee Hubert, JP</b> (<i>Chairman &amp; CEO, HKC International Holdings Limited, Hong Kong</i>)</p>
	<p>Moderator:  <b>Dr Oscar CHIU</b> (<i>Senior Lecturer, PolyU CPCE</i>)</p>
<b>KEYNOTE PRESENTATIONS VIII</b>	
2:50 pm –	<b>Manpower Challenge in the Healthcare Industry within HK and GBA</b>
3:05 pm	<p><b>Dr The Honourable LAM Ching-choi, SBS, JP</b> (<i>Chief Executive Officer, Haven of Hope Christian Service, Hong Kong</i>)</p>
	<p>Moderator:  <b>Prof. Peter P. YUEN</b> (<i>Conference Chair and Dean, PolyU CPCE</i>)</p>
3:05 pm –	<b>Discussion</b>
3:30 pm	<p>Moderator:  <b>Dr Ben Y. F. FONG</b> (<i>Associate Division Head and Professor of Practice (Health Studies), PolyU CPCE</i>)</p>
3:30 pm –	<b>Afternoon Tea Break</b>
4:00 pm	
<b>PARALLEL SESSIONS</b>	
4:00 pm –	<b>Session A: Leadership and Strategic Development</b>
5:30 pm	<p>Moderator: <b>Mr Stephen LEUNG</b> (<i>Council Member, Hong Kong Management Association</i>)</p>
	<p>(A1) <b>Human or Digital?: A Study of Patient Touchpoints Insights in the Healthcare Setting</b> (<i>Andrew S. F. HUI, Canossa Hospital; S. ZHENG Wilfrid Laurier University</i>)</p>
	<p>(A2) <b>Experiences of primary care workers in the implementation of primary health care approach to address non-communicable diseases: A qualitative case study</b> (<i>Moncatar TJ ROBINSON, Lorenzo Fely MARILYN, Canila CARMELITA, Saniel OFELIA, Faraon EMERITO, Rosadia ROBERTO, Garcia FERNANDO, University of the Philippines Manila</i>)</p>
	<p>(A3) <b>Mental health policy in Hong Kong: an application of a health policy triangle</b></p>



(Gigi LAM, *Hong Kong Shue Yan University*; Eva Y. H. CHUNG, *The Education University of Hong Kong*)

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**Session B: Communications and Relationship Management**

Moderator: **Dr Cecilia SIT** (Senior Lecturer, The University of Hong Kong)

(B1) **Using Cloud-Based Sentiment Analysis to Alleviate Labour Shortage of Healthcare Employees** (Adam WONG, *PolyU CPCE*)

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**Session C: Professional and Social Responsibility**

Moderator: **Dr Arthur SHAM** (Council Member, HKCHSE)

(C1) **ESG in Health Services: Implications for Healthcare Professional Management in Hong Kong** (Albert C. Y. TEO, Fowie S. F. NG, Lester K. F. LAM, *Tung Wah College*)

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**Session D: Health and Healthcare Environment**

Moderator: **Dr Wai Kwong POON** (Senior Lecturer, Tung Wah College)

(D1) **The Effect of LiuZiJue on Frontal Lobe Oxyhemoglobin levels in Adults with Long COVID-19 Syndrome and Healthy Adults: A Functional Near-infrared Spectroscopy prospective study** (Calvin C. K. YIP, L. LU, P. S. CHU, Y. T. TANG, *Tung Wah College*; Armstrong T. S. CHIU, *The Hong Kong Society for the Blind*)

(D2) **Acceptance and Safety of Tele-exercise among the older adults at risk of fall: a mixed method study protocol** (Karly O. W. CHAN, Peter P. M. YUEN, Ben Y. F. FONG, Vincent T. S. LAW, *PolyU CPCE*; Fowie S. F. NG, *Tung Wah College*; Wilson C. P. FUNG, *DoctorNow Needs*; Tommy K. C. NG, I. S. CHEUNG, *PolyU CPCE*)

(D3) **Why Not! Developing a Transdisciplinary Intervention Framework for breast cancer survivors in the Jiangmen Maternity and Child Health Care Hospital** (Y. Y. LEE, *Gratia Christian College*; H. XU, *Jiangmen Maternity and Child Health Care Hospital*; J. L. LIANG, *Wuyi University*)

(D4) **Integration of clinical pharmacist into heart failure management improves patient outcomes** (Rosanna N. S. IP, Pauline L. M. CHU, Grace W. M. YOUNG, *Tuen Mun Hospital*)

(D5) **Performing Mannitol Challenge Test with an Active Mannitol Dry Powder Dispersion System for Asthma Diagnosis and Monitoring** (Oliver Y.H. KUI, Jasmine CHAN, James-Wesley CHENG, Kate C. C. CHAN, Michelle YU, *The Chinese University of Hong Kong*; Patricia TANG, *University of Sydney*; Yin Ting CHEUNG, *The Chinese University of Hong Kong*; John BRANNAN, *John Hunter Hospital*; Hak-Kim CHAN, *University of Sydney*; Albert M. LI, Sharon S.Y. LEUNG, *The Chinese University of Hong Kong*)

(D6) **A review on Dietary Influence on ASD and ADHD Comorbidity Patients** (Gabriel CHAN, Margery CHEUK, *PolyU CPCE*; Adam BONG, Katherine LEUNG, *The Education University of Hong Kong*)

(D7) **Impact of Pharmacist Intervention on Unplanned Hospital Readmission Rate for Patients Admitted for Cardiovascular Diseases in Emergency Medicine Ward (EMW): A Prospective Trial** (C. H. LAU, *Tseung Kwan O Hospital*; L. P. CHENG, H. S. WOO *United Christian Hospital*; H. S. J. YOU, *The Chinese University of Hong Kong*)

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**Session E: Business Development Opportunities**

Moderator: **Dr Fowie NG** (Vice President, HKCHSE)

(E1) **Green Healthcare Centre: Evaluating Indoor Environment Quality using LEED Rating System from Healthcare Professional Perspectives** (Wilco CHAN, *Macau Institute for Tourism Studies*; Chammy LAU, Helen WONG, *PolyU CPCE*)

**Session F: Challenges and Development of Rare Disease Management and Policy**

Moderators: **Dr S. H. LIU** (President, HKCHSE) & **Mr Samuel MAK** (Council Member, Society for Innovative Healthcare Hong Kong)

(F1) **Rare disease is not rare** (Brian CHUNG, *Hong Kong Genome Institute*)

(F2) **Importance of Patient Registry for clinical advancement** (Edwin CHAN, *The Chinese University of Hong Kong*)

(F3) **Confession from the family with Rare disease** (Rebecca YUEN, *Tuberous Sclerosis Complex Association of Hong Kong*)

(F4) **Speak for us, a new value for public policy** (Joephy W. Y. CHAN, *Legislative Council*)

(F5) **Improving the Diagnosis of Rare Genetic Diseases through CoGenesis: an Integrated Bioinformatics Platform** (Allen YU, Aldrin YIM, *Codex Genetics Limited*)

(F6) **R&D for new drugs** (Ivan LEE, *Lee's Pharmaceutical (HK) Limited*)

## IV. KEYNOTE PRESENTATIONS

### Keynote I: Strategic Management of Healthcare in an Ageing Society: Experience from Japan

**Professor Toshihiko HASEGAWA**

*President, Future Health Research Institute, Japan*

Correspondence: Professor Toshihiko HASEGAWA ([pxn14573@nifty.com](mailto:pxn14573@nifty.com))

#### Abstract

During last 3 years Japan suffered 3 exordial incidents, namely “Covid 19 Pandemic”, ”Ukraine War” and “Assassination of a Politician” which evoked the existential questions such as “What is disease, life and death?” “Wat is the role of health professionals to support people?” And also takes us back to the history “Spanish Flu 100years ago“and “ Crimean war 160 years ago” Those events or incidents shed a light the fact there were three trends already underway before those three events. And enhanced the trends. One domain/element is a demographic drift which was caused by ageing society. The second Technology innovation and explosion which leads to the singularity. Singularity The third is environmental issue. Strategic thinking and planning starts with the three domains of analysis, namely internal-external environmental analysis and goal and mission. Mission is healthcare system Goal ` that the goal is to cure disease and to prevent premature death. However, after the epidemiological transition, the disease is not clearly defined and is difficult to cure. And the prevention of death is impossible. The priority should be shifted because of the change in the care cycle. .Therefore, human resource management for this health system transition is not simple but complicated. In the care cycle, the human resource should include not only health specialists but communities and families,

and society at large, i.e. workforce in general The demand for health care and long-term care will increase in the next ten years, requiring more specialists in number and quantitative. Although improvement in efficiency is required. 2 million people is calculated to be needed, but the population of young people is decreasing. We have to think twice about prioritizing those young resources putting in the industry sector vs the welfare sector. Not only quantitative issues but also qualitative is also important. The role of each professional has to be redefined and integrated to care. I want to propose several points. There is an interesting German case in the last ten years. A new educational system was launched three years ago to train the new discipline, which is called a 'care giver', by abolishing the term 'nurse' and 'long-time care worker'. In educational content (context?) becomes the same. License and certificate are integrated into a care giver. etc.. In summary, (1) professional strategic management is not limited only to health and specialists but should be extended to society. (2) the role of each specialist is defined and integrated. The generational approach is important and special attention has to be drawn to generation Z. Care should include not only elderly care but also young and mother & child care.

## **Keynote II: Healthcare Reform Challenges and Potentials: The Way Forward for Hong Kong and the GBA**

**Professor Peter P. YUEN**

*Dean, College of Professional and Continuing Education, The Hong Kong Polytechnic University, Hong Kong*

Correspondence: Professor Peter P. YUEN ([peter.yuen@cpce-polyu.edu.hk](mailto:peter.yuen@cpce-polyu.edu.hk))

### **Abstract**

The health care systems of Hong Kong and the Mainland are described with a focus on financing. Both the tax-based system in Hong Kong and the insurance-based system in the rest of GBA are analyzed in terms of quality, efficiency, cost, equity and sustainability. With a rapidly ageing population in the entire region, the inadequacies of both systems are highlighted. Other issues, including manpower, long term care, space are also discussed in terms of challenges and healthcare reform opportunities.

## **Keynote III: Developing a Competency Framework for Hospital Administrator: Experience of Australia**

**Dr Zhanming LIANG**

*Associate Dean of Research Education, College of Public Health, Medical and Veterinary Science, James Cook University, Australia*

Correspondence: Dr Zhanming LIANG ([zhanming.liang@jcu.edu.au](mailto:zhanming.liang@jcu.edu.au))

### **Abstract**

The belief of competent health managers being the key to better health service delivery has received increasing acceptance in the past two decades. The promotion of competency-based

training and education has further generated the interests and investment in understanding management competency requirements for health service managers and developing management competency frameworks to guide health management workforce development. However, empirical evidence on how a management competency framework guide health management workforce development and service improvement is limited.

MCAP– a management competency framework and tool developed and validated in the Australian healthcare context ten years ago has now been used to guide developing health management workforce and management capacity of healthcare organizations in various countries such as China, Italy, Iran, Thailand, Finland, Nepal, Norway etc. MCAP has been continuously evolving. As creator of MCAP and driving force of maximizing its impact, Dr. Liang will share the journey of contributing to management capacity building in Asia Pacific aiming at inspiring some thinking of and discussions on the following questions:

- 1) Can management competency framework developed in one healthcare context be applied to different healthcare contexts or to specific sector such as hospitals? If yes, how so?
- 2) How to use competency framework to guide health management workforce development and building management capacity of healthcare organizations such as hospitals?
- 3) How to ensure the relevance of management competency framework in the rapidly evolving healthcare system where innovation is the focus?

#### **Keynote IV: Observations on Healthy China 2023**

**Professor Gordon LIU**

*Peking University BOYA Distinguished Professor of Economics, PKU National School of Development & Dean, PKU Institute for Global Health and Development, China*

Correspondence: Professor Gordon LIU ([gordonliu@nsd.pku.edu.cn](mailto:gordonliu@nsd.pku.edu.cn))

#### **Abstract**

Following the state call for Healthy China 2030 in 2016, some marked progress has been accomplished, especially the universal health insurance coverage completed in 2019. In the meantime, the healthcare delivery system still remains a great challenge with big hospitals continued to dominate the patient flows for both inpatient and outpatient services. On the role of drug financing policies, significant price cuts were made for both generic and brand products to be listed for the national insurance reimbursement. In response, innovative drug makers expressed increasing concerns on adverse impact on long-term R&D investment for medical innovation. As such, value-based economic assessment is expected to play greater role in shaping the national insurance policies.

#### **Keynote V: Direct Economic Burden of Alzheimer's Disease and Parkinson's Disease Among Patients Covered by Health Insurance in GBA**

**Dr Hui ZHANG (Vivienne)**

*Associate Professor, Department of Health Policy and Management, Sun Yat-sen University, China*

Correspondence: Dr Hui ZHANG (Vivienne) ([zhanghui3@mail.sysu.edu.cn](mailto:zhanghui3@mail.sysu.edu.cn))

### **Abstract**

Due to the rapidly growing aging population, Alzheimer's disease (AD) and Parkinson's disease (PD) are becoming a worldwide public health problem. Currently, AD and PD are the first and second most common neurodegenerative disorder. With the growing number of patients, AD and PD impose a significant financial burden on patients and their families, as well as on the health care systems. This study aimed to evaluate the direct medical costs of patients with AD and PD using a large sample from an entire city and to identify the potential factors correlating with their inpatient costs in Guangzhou City, Southern China. The findings suggested that the direct medical costs of patients with AD and PD in Southern China were high compared to the GDP per capita in Guangzhou City, and different between the two evaluated types of insurance. Policymakers could consider reduce the gaps between the two urban insurance schemes in benefit levels, provide support for the development of a comprehensive long-term care insurance system and promote the use of telemedicine in China.

### **Keynote VI: Patient Empowerment in GBA – What can we do?**

**Professor Cecilia L. W. CHAN<sup>a</sup> and Dr POON Tak Lun<sup>b</sup>**

*<sup>a</sup>Professor Emeritus, Department of Social Work and Social Administration, The University of Hong Kong*

*<sup>b</sup>Consultant, Department of Rehabilitation, International Medical Center, The University of Hong Kong - Shenzhen Hospital*

Correspondence: Professor Cecilia L. W. CHAN ([cecichan@hku.hk](mailto:cecichan@hku.hk))

### **Abstract**

The Greater Bay Area (GBA) is home to over 70 million people. Hong Kong has the largest proportion of population above the age of 65, while the population in the GBA are relatively younger, especially for Shenzhen. Majority of the elderly populations are living with chronic illnesses and Hong Kong are supported by an extensive network of services and facilities for patient support and empowerment.

To empower these patients with chronic illnesses, we have to establish a community preparedness in shared decision making for patient self-management, conducive policy environment with accessible and affordable services that preserve dignity and health equity, as well as providing a holistic health and social care network in the community.

Hong Kong has developed solid patient empowerment infrastructures through the Hospital Authority, NGOs, patients' self-help organizations etc. Examples of patient empowerment programs in Hong Kong will be shared to this presentation.

Chinese health industry was known to be plagued with bribing, rebates, lack of complaint channels, and tense doctor-patient relationships previously. With National health insurance, increasing monitoring and sanctioning, self-regulation and standard setting, transparency and psychosocial care requirements, Chinese patient experiences improved remarkably in the past decade. The GBA, an innovative hub for AI, robotics, med-tec and rehabilitation engineering, hospitals such as the HKU-Shenzhen Hospital are developing holistic patient care rapidly. The components of patients' rights, advocacy, self-help, dignity preserving interventions, life-style management, conjoint decision making through patient portals and mobile apps and health-promoting regulations of food and consumables are emerging and standardization throughout China will be forth coming.

### **Keynote VII: Ageing in Place via Telehealth: A Case Study of Singapore**

**Dr Sabrina Ching Yuen LUK**

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#### **Abstract**

Telehealth refers to the use of information and communications technology (ICT) to deliver clinical and non-clinical services at a distance. In Singapore, Smart Health Video Consultation (SHVC) was introduced to several public hospitals in April 2017 to enable patients to remotely consult healthcare professionals via a synchronous video call. This study uses a stakeholder perspective to examine the pros and cons of using SHVC to provide remote consultation for older residents with mental illness in over 20 nursing homes. It also discusses the implications of this study for other cities or countries which promote greater use of telehealth to care for older adults.

### **Keynote VIII: Manpower Challenge in the Healthcare Industry within HK and GBA**

**Dr The Honourable LAM Ching-choi, SBS, JP**

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#### **Abstract**

Hong Kong has been facing a serious shortage of healthcare professionals. With the ever-increasing ageing population and increasing demand for healthcare services, it is expected that the shortage of healthcare manpower will aggravate. The shortage causes long waiting time for specialty service in the public sector and short consultations in the city and continues to undermine access to care. The Government must proactively tackle and address the growing issue of healthcare workforce shortages.

While the Government may consider increasing the number of UGC-funded healthcare training places which may help ease the shortage in the long term, the Government should ensure a



steady supply of healthcare professionals to serve in the public sector in the short and medium term. Recruitment and retention should go hand in hand. Such strategies include retaining existing healthcare professionals, attracting retired doctors to extend their service periods and recruiting qualified non-locally trained doctors through the established system proactively. Besides, Hong Kong may leverage the Greater Bay Area's medical talent resources by introducing mainland doctors and nurses to practice in public hospitals and social welfare sectors via limited registrations.

To echo with the national strategy in GBA development and jointly promote the development of the health realm in GBA, talent exchange should be strengthened to enhance the competency of medical professionals and the quality of healthcare services. The promotion of academic exchanges and collaboration among medical practitioners between Hong Kong and Guangdong may foster the development of the healthcare sector and expand the talent pool in GBA.

Technology may also be adopted to help staff reduce workloads and overcome staff shortages. For example, using artificial intelligence system to link patients to the department they need and give information according to their listed symptoms for streamlining patient navigation. With good use of digital solutions, the shortage of healthcare staff might be mitigated and the quality of medical services might be improved.

## **V. PLENARY SESSIONS**

### **Plenary I: Rehabilitation Services in an Ageing Society: Potentials in Hong Kong and GBA**

[Professor Leonard Sheung Wai LI](#)

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#### **Abstract**

Aging of population is a universal phenomenon. There is an increase in incidence of many diseases with aging, such as cardiovascular, neurological and musculoskeletal problems. Although the advancement of medicine could enhance the life expectancy, yet these diseases increase disabilities or functional limitations in the aging population. Health care services that emphasize on enhancing functional status and improving quality of life together with cost-effectiveness approach are in vast demand.

To meet the demand, different levels of provision will need exploration, particularly in the rapid developing region such as Great Bay Area. The first level that is easily appreciated is the need of health workers of various professional background from doctors, therapists to health workers in nursing home. Discussions and considerations would need looking into level of background training and manpower planning at present and in the long run. The next level should explore how the national policies and investors could affect the demand and supply of the services. Finally, the other level needs exploring is the integration health care professionals and technological industries to facilitate the development of technological products for enhancing the functional status of the aging population not just in Great Bay Area but also in the One Road One Belt in the longer term.

### **Plenary II: Integrated Home Care & Inpatient Computer System for Hospice & Palliative Care**

[Dr CHAN Chung Yee Hubert, JP](#)

*Chairman & CEO, HKC International Holdings Limited, Hong Kong*

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#### **Abstract**

Funding from the Innovation and Technology Fund for Better Living from 1 April 2018 to 31 March 2021 to develop an integrated healthcare system with web portal, mobile app and software providing palliative and hospice care service. The project is divided into three phases: namely Home care, OPD & in-patience service, and Outreach services. The outcomes showed that the efficiency and quality of service delivered to the terminally ill patients has been

improved; self-assessment and monitor the vital signs at home was enabled; real-time retrieval and updates on the medical records was achieved; and local palliative and hospice care has been fostered.

## VI. PARALLEL SESSIONS

### Parallel Session A: Leadership and Strategic Development

#### A1. Human or Digital?: A Study of Patient Touchpoints Insights in the Healthcare Setting

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#### Abstract

**Background:** The COVID-19 pandemic has accelerated the use of digital health services. However, it remains unclear which patient touchpoints should be replaced by digital programs and which should be carried out by humans. In line with patient engagement theory, online access to information provides easy and more convenient options that can help patients better engage in the healthcare system, establish a shared vision with providers, and thus progress towards better outcomes and quality of life. However, patients also require emotional support during their stay. They need to discuss their issues and share feelings with health service providers. As healthcare workers, it is imperative for us to understand the key touchpoints of the patient journey and perform rigorous research into the implementation, especially in this post-COVID era.

**Methods:** A quantitative survey method was used to identify ten key touchpoints that represent behaviours patients must perform to benefit from healthcare. These touchpoints are carried out by humans instead of programs. A total of 140 questionnaires were distributed and collected over half a year period from five wards with first-class to third-class patients staying in a renowned private hospital in Hong Kong. The touch points were categorized into three stages in chronological order, and their relations to patient satisfaction was tested.

**Results:** Three touchpoints had a significantly positive relationship with patient satisfaction: “Staff Self-introduction,” “Information provided by staff during the stay,” and “Discharge process.” These “human” touchpoints are crucial to meet consumer needs and expectations. For instance, first-class patients expect hospital staff to introduce themselves upon encountering them, and patients from various classes are expected to get prompt answers from nurses or doctors whenever they have a question. The discharge process can be overwhelming for some patients as they are leaving a secure environment. However, the “Information provided by staff before the operation” strongly and negatively affected patient satisfaction. Patients apparently have a negative attitude toward the detailed information provided before the treatment, operation, or procedure, which may increase their anxiety. Five touchpoints: “Registration,” “Admission,” “Encourage Questions,” “Doctor Communication,” “Account service,” and “Follow-up” are not significantly related to patient satisfaction and therefore are subjective to be programmed.

**Conclusion:** To sum up, our research presents an original model of patient touchpoints through stages beyond the medical process. It gives practical tracks to improve healthcare efficiency by identifying the touchpoints that can be replaced by digital programs and those that humans must carry out continuously.

Keywords: patient touchpoints, patient engagement, digital health, COVID-19

## **A2. Experiences of primary care workers in the implementation of primary health care approach to address non-communicable diseases: A qualitative case study**

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### **Abstract**

**Background:** The prevalence of cases and deaths related to noncommunicable diseases in the Philippines is continuously increasing. Nonetheless, a large proportion of this population maybe curbed through implementation of appropriate public health strategies with strong focus on primary prevention and health equity. Given that problems such as noncommunicable diseases had been changing faster, a responsive primary health care approach must be revitalized and employed. Unfortunately, information on how the execution of primary health care towards addressing noncommunicable diseases to bring about desired health outcomes have been limited. Hence, this study aims to determine the experiences in implementing a primary health care approach to address noncommunicable diseases based from the perspectives of various concerned health workers at the primary care level.

**Methods:** A qualitative case study approach based on social constructivism theory was employed using data from 16 homogenous focus groups discussions (FGDs) composed of 68 health workers (i.e., physicians, nurses, midwives, community health workers). A semi-structured interview guide was utilized to determine the perceptions and experiences in the implementation of primary health care approach to address noncommunicable diseases in selected rural health units, primary care out-patient clinics, and public and private infirmaries or Level 1 hospitals from all cities and municipalities in one province located in Central Luzon, Philippines. All interviews were audio-recorded and transcribed verbatim. An inductive content analysis using NVivo 12 was employed to distinguish and classify relevant thematic codes.

**Results:** Several participants perceived that an inclusive delivery of primary health care approach to address the increasing number of noncommunicable disease cases through health education and promotion, assessment and monitoring of patients, patient treatment and management, and collaboration among health workers and care institutions were implemented. This was felt to have resulted to an efficacious patient health outcome such as increased health knowledge and awareness, prevention of diseases or untoward progression, and better patient satisfaction. Participants believed that enablers of primary health care implementation to address noncommunicable diseases include the following: (1) supportive leadership and governance; (2) dedicated and competent healthcare workers; (3) prioritization of noncommunicable diseases; (4) functional referral mechanism; and (5) efficient utilization of limited resources. However, noncommunicable disease service delivery anchored on a strong primary health care approach was viewed to be overshadowed by several challenges such as: (1) health human resource constraints; (2) logistical inadequacies; (3) limited access and availability of services and facility; (4) patient issues and impediments; and (5) structural restrictions.

**Conclusion:** Primary care workers argued a robust delivery of primary health care approaches to confront noncommunicable diseases positively enhancing patient health. However, its implementation is determined by concurrence of various facilitating and hindering factors. Further investigation on influence of these determinants in strengthening the enactment of primary health care to address noncommunicable diseases is needed

Keywords: Primary Health Care, Noncommunicable diseases, Primary Care, Philippines, Qualitative

### **A3. Mental health policy in Hong Kong: an application of a health policy triangle**

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#### **Abstract**

The mental health of Hong Kongers warrants public attention. In a large-scale survey on Hong Kong Mental Health Index over ten consecutive years since 2012, it found that the Mental Health Index was 48.03 out of 100 on average based on a telephone survey with 1,028 citizens aged 15 or above according to the World Health Organization's Five Well-Being Index (WHO-5).

Given the alertness of mental health of Hongkongers, the current paper focuses on mental health policy and service after 1997, and aims to explore the predominant theme of the latest mental health policy and to identify existing mental health service and treatment gaps in Hong

Kong, analyze the mental health policy with the in-depth interviews with the different stakeholders based on an analytical framework, namely health policy triangle, and explore the essential elements that would constitute a good and effective mental health policy in Hong Kong.

The followings were the research questions.

1. What are perceived as the predominating mental health policy impacting on the wellbeing of people with mental illnesses in Hong Kong?
2. What were the contextual factors that affecting the practice or implementation of the mental health policy?
3. How the process of implementation of the mental health policy was perceived?
4. How the different actors of mental health policy were working to promote and ensure the welfare of people with mental illness?

This study employed a multiple, embedded case study design to answer the aforementioned research questions. In this study, the mental health policy system in its context was studied using the Health Policy Triangle Framework. This study applied the Health Policy Triangle as a framework to closely examined the content, context, process, and actors that were influencing the mental health policy practice in Hong Kong.

Qualitative data was collected via interviews. Essential stakeholders were invited to participate in an 45 minutes, face-to-face interview. Essential stakeholders involved in this study included; 2 policy makers; 2 mental health professionals from the public funded medical settings; 2 healthcare professionals from the subvented non-governmental organizations; 2 self-help and mutual health groups; 2 representatives of district council; 2 people with mental health disability; 1 caregivers; and 1 representative from the advocacy group. All semi-structured interviews were conducted by two interviewers according to a case study guide. Issues explored in the semi-structured interviews included local mental health needs, understanding on current mental health policy, its operation and the practical issues concerned.

An interaction between four components identified by health policy triangle is found. In the context of intertwining pressures emanating from population pressure, aging population and economic uncertainty, it set the scene of necessity of a comprehensive and long-term mental health policy. Although the current mental health policy involves multiple actors, such as different government departments, schools, mental health advocates, psychiatrists, and self-help and mutual groups, the policy rather suffers from an emphasis on medical nature of mental health coupled with the insufficiency of mental health manpower (i.e., psychiatrists and case managers) and medical services and uneven distribution of mental health services across public and private hospitals and across 18 districts.

## **Parallel Session B: Communications and Relationship Management**

### **B1. Using Cloud-Based Sentiment Analysis to Alleviate Labour Shortage of Healthcare Employees**



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## **Abstract**

Recently, the turnover rates of healthcare professionals in Hong Kong have been high. This churn of staff in hospitals, clinics, and elderly homes adversely affects the availability and quality of services and increases the workload of the remaining personnel. That is because an unfilled position implies another staff member has to make an additional effort to fill the gap due to the staff shortage. For example, a high hospital turnover can cause sudden changes in the work schedule, one of the main reasons for burnout among healthcare professionals. As a result, healthcare workers who remain in their posts may have low morale and experience burnout. Burnout often leads to lack of concentration, slow reaction times, short temper, and inaccurate judgment. For example, a survey in the US reported that 44% of nurses responded that they thought their managers do not appreciate how tired they become, and 80% of nurses responded that they find it hard to balance body, mind, and spirit.

While efforts should be made to retain existing employees, and look for ways to increase the supply of healthcare workers, it is also important to monitor the sentiment of existing healthcare staff and those considering joining a particular healthcare job position. One of the ways to achieve this purpose is to conduct surveys. However, there are many problems associated with surveys. In surveys, the respondents only answer the questions in the survey, and they are unlikely to express in detail their genuine opinions in open-ended questions. There is also possible bias because the respondents may give answers that reflect what they think the researchers want to hear. Furthermore, it is a one-time cross-sectional study that is expensive to conduct multiple times. Therefore, there is a need to have a sustainable way to capture the true opinions of the incumbent healthcare workers and those considering joining the profession over a long period.

This paper will explain the principles of sentiment analysis and examples of how they are performed using cloud computing. Then this study will review actual posts by current Hong Kong healthcare workers and potential recruits in a local social network. Finally, the difficulties in applying standard sentiment analysis in Hong Kong will be discussed.

## **Parallel Session C: Professional and Social Responsibility**

### **C1. ESG in Health Services: Implications for Healthcare Professional Management in Hong Kong**

Albert C. Y. TEO\*, Fowie S. F. NG, Lester K. F. LAM

## **Abstract**

**Background:** Environmental, social, and governance (ESG) reporting has become a requirement by most regulatory bodies globally to ensure transparency of information being disseminated to investors and other stakeholders of listed companies. For instance, since 2015, publicly listed companies in Hong Kong are required to submit their ESG reports annually. Additionally, an increasing number of privately held companies are also voluntarily reporting their ESG performance. However, healthcare organizations in Hong Kong seem to be lagging behind in terms of reporting their ESG performance.

**Method:** This study aims to analyze the current practices of ESG reporting by companies listed on the Stock Exchange of Hong Kong (SEHK) that are involved in providing direct patient services through their healthcare institutions and facilities. Specifically, thematic analysis of the annual reports and ESG reports published by these publicly listed companies is conducted. The findings of the thematic analysis can yield valuable insights into patterns of ESG performance and reporting that cut across the various publicly listed companies.

**Discussion:** The results of the thematic analysis highlight the key practices of ESG performance and reporting among SEHK-listed healthcare companies. The observed themes of ESG performance and reporting not only highlight the areas of ESG management where these listed healthcare companies are doing well, but also identify specific deficiencies and gaps in how these listed healthcare companies manage their ESG performance and reporting. The highlighted deficiencies and gaps inform healthcare organizations, in both the private and public sectors, of specific areas of ESG performance and reporting that need to be improved, so that ESG management in the health services ecosystem can be elevated to a higher level. The identified deficiencies and gaps also point towards the need for more effective training of health services professionals in ESG management.

Keywords: ESG, Corporate Social Responsibility, Social Impact, CSR

## **Parallel Session D: Health and Healthcare Environment**

### **D1. The Effect of LiuZiJue on Frontal Lobe Oxyhemoglobin levels in Adults with Long COVID-19 Syndrome and Healthy Adults: A Functional Near-infrared Spectroscopy prospective study**

Calvin Yip Chi Kong<sup>1</sup>, Lu Linlin<sup>1</sup>, Chu Ping Sze<sup>1</sup>, Tang Yi Ting<sup>1</sup>, Armstrong Chiu Tat San<sup>2</sup>

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## Abstract

**Background:** COVID-19 infection may lead to long-lasting coronavirus and cognitive symptoms. According to definition of NICE, long COVID encompasses ongoing symptomatic COVID-19 (where symptoms last for 4 to 12 weeks) in the absence of an alternative diagnosis (Chung, 2022). Health Qigong LiuZiJue (LZJ) is a traditional exercise integrating breathing meditation and physical exercise. Given that long-COVID patients fall into all age groups, there is a necessity to examine the effect of LZJ due to its ease of administration and low-risk nature. Therefore, this study aimed at investigating the effects of LZJ on improving frontal lobe oxyhemoglobin (HbO), cognitive and long-COVID symptoms.

**Methodology:** 14 healthy controls and 16 long covid subjects (n=30) were recruited in the study. Two face-to-face sessions and a 2-week home LZJ program were arranged. In the first face-to-face session (pre-assessment), LZJ with 6 sounds (“Xu”, “He”, “Hu”, “Si”, “Chui” and “Xi”), without movement, was taught. They were required to follow a video with sound guidance to perform each sound for 2 minutes. Between each sound, a 2-minute rest was arranged to prevent the PO concentration of previous sound from affecting that of the latter sound. Besides, pursed lip breathing (PLB) exercise was performed to study the effect of unique pronunciation used in LZJ as both interventions used breathing as core component. Throughout the process, NIRSIT (OBELAB Inc., Seoul, Korea) will be used to continuously measure real-time changes of hemodynamics in the prefrontal cortex. After that, the subjects were required to practice 12-minute LZJ with each sound for 2 minutes at home twice per day. In the second face-to-face session (post-assessment), PO during LZJ was recorded to measure change in PO after 2-week practice. Besides, Hong Kong Montreal Cognitive assessment (HK-MoCA), TMT (Trail Making Test, Part A and B), The State-Trait Anxiety Inventory (STAI), modified COVID-19 Yorkshire Rehabilitation Scale (C19-YRSm) were conducted in each face-to-face session to measure the change in cognitive performance in various domains, anxiety level and long COVID symptoms.

**Data Analysis:** Data of two parameters, concentration of oxyhemoglobins (HbO) and deoxyhemoglobin (HbR), were collected and processed in RStudio v 4.1.3 with algorithm. The overall change of HbO and HbR between pre-assessment and post-assessment resulted from LZJ in two groups were to observe the prefrontal activation. ANOVA test and post hoc correction will be used to compare the change of HbO and HbR between each sound in two groups. The level of HbO across 15 channels were compared to determine the most activated brain area during LZJ. The level of HbO across 15 channels were compared to determine the most activated brain area during LZJ. To compare the effect of LZJ between pre and post sessions, mean of MOCA total scores, mean of “S” scores and “T” scores in STAI, mean of required time for TMT A and TMT B and mean of C19-YRSm total scores for all subjects were compared. Dependent t tests were performed to determine the presence of significant differences. The same analysis was used in group comparison between long COVID subjects and healthy controls.

**Conclusion and Future Implications:** This might benefit home-bound elderly, patients with hectic lifestyles and patients with movement disorders.

## **D2. Acceptance and Safety of Tele-exercise among the older adults at risk of fall: a mixed method study protocol**

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### **Abstract**

**Background:** Falls are common among the older adults, leading to severe consequences such as bone fractures and hampered physical and psychological well-being. Injurious falls is one type of preventable hospitalization. Regular physical activity is essential for reversing sarcopenia and preventing falls. However, frail older adults are concerned about transportation, class location, and infection risk, particularly during the COVID pandemic. Tele-exercise, which provides an option for frail older adults, is a method of remotely delivering exercise training under supervision using technology such as video-conferencing software. It is unclear whether older adults will embrace technology and welcome tele-exercise classes at home. Another issue to consider is exercise safety.

**Methods:** This study aims to evaluate the safety and acceptance of tele-exercise among older adults at risk of falls. The elderly will be recruited from community centres in Hong Kong and all of them will participate in a 12-week exercise programme at home using Zoom. The Physical Activity Enjoyment Scale (PACES), Senior Technology Acceptance Model (STAM)-14 item scale, attendance rate, and dropout rate will be used to assess their acceptance of tele exercise. Semi-structured interviews will be conducted with all the participants. Their overall experience of tele-exercise will be coded using the Theoretical Domains Framework (TDF). The safety of the tele-exercise programme will be reflected by any adverse events during the study.

**Discussion:** The findings of this study will provide insight into older adults at risk of falls who engage in tele-exercise. Their acceptance of technology, the method of delivering the home-based exercise and the challenges they encountered will be examined. The TDF allows a theory-driven approach to classifying barriers and enablers into fourteen domains. We will propose guidelines on delivering tele-exercise to older adults at risk of falls regarding exercise intensity, safety precautions and technological support.

Keywords: tele-exercise, falls, elderly, exercise safety

## **D3. Why Not! Developing a Transdisciplinary Intervention Framework for breast cancer**

## **survivors in the Jiangmen Maternity and Child Health Care Hospital**

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### **Abstract**

Breast cancer is a major concern in women's health in Mainland China. Literature demonstrates that women with breast cancer (WBC) face significant challenges, including stigma, treatment side-effects, and bodily disfigurement, which can impact their mental and sexual health. However, related studies in this area are rare in China. Despite the prevalence of breast cancer, there is a lack of understanding of the unique experiences and needs of WBC in China. A Feminist participatory action research project (FPAR) has been implemented since 2016, social workers and teachers worked hand in hand with health professions and breast cancer survivors from a Jiangmen Maternity and Child Health Care Hospital of Mainland China to explore a workable model of medical social work in responding to the needs of the women in Chinese context. This paper is based on the data of Action Research's stage three and four. It aimed at exploring 1. What kinds of services should be included in the intervention model for WBC? 2. What kinds of systems should work together for WBC? 3. What kinds of professionals should be involved? What are the roles and functions of different parties (professionals, peer counselors, carers and social welfare sectors and governments)? 5. How to involve the peer counselor to voice their needs and provide their suggestions on the intervention framework of the medical social service to develop their collective efficiency? This study has discussed how the transdisciplinary intervention framework (TIF) was adopted, not solely as an intervention framework. The Three-level of transdisciplinary collaboration through practice, education, and research should be promoted in Mainland China. The research findings are crucial for local hospitals to develop medical social services through a lens that is sensitive to gender, societal, cultural, and practical experiences of breast cancer survivors and their families. TIF is thus to facilitate quality care provision to WBC.

### **D4. Integration of clinical pharmacist into heart failure management improves patient outcomes**

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### **Abstract**

**Purpose:** Hong Kong has a high prevalence of heart failure (HF), affecting 1-2% of the

population. HF is a debilitating disease with high mortality and readmission rate, causing a significant burden to the healthcare system and negative impact on patient's quality of life (QoL). Currently, it is not uncommon to have outpatient follow up, up to 4-6 months in public hospitals and patients might have HF decompensation again before follow-up. Besides, underutilization of guideline-directed medical therapy (GDMT) in clinical practice and lack of patient education are major service gaps in HF management. Therefore, a multidisciplinary HF program with pharmacist contribution was set up in Tuen Mun Hospital in 2020, aiming to bridge these gaps.

**Method:** Patients who were hospitalized for HF with left ventricular ejection fraction (LVEF) <40% but no other major organ comorbidities were recruited. Pharmacist would provide medication reconciliation to identify medication discrepancies, provide pharmacotherapeutic recommendations and rectify errors such as duplications and omissions. In addition, pharmacist would provide patient education on the efficacy and safety of GDMT. Pharmacist would gauge patient's level of understanding to individualize education, correct misunderstandings and promote drug compliance.

Early follow-up would be arranged within 4 weeks post-discharge. In between cardiologist consultations, patients would be followed up by pharmacist twice every 4-6 weeks for symptoms review and medication titration according to protocol. Besides, frequent pharmacist follow-up could early identify improper medications use which exacerbates HF symptoms and prevent adverse drug events. Patients would be discharged from program after medications reached maximal tolerated dose.

**Results:** From 10/2020 to 8/2022, 128 patients had their medications maximally titrated and discharged from program. Patients in the intervention group had reduced 30-day HF-related readmission compared to usual care group (4.7% vs 21%,  $p<0.001$ ). HF-related readmission rate within 6 months was also significantly lower in the intervention group (7.8% vs 32.5%,  $p<0.001$ ).

For the utilization of GDMT, among the intervention group, 44 (34.4%) patients were on triple therapy, and 66 (51.6%) were on quadruple therapy recommended by guideline upon program discharge or after 12 months follow-up, whichever is earlier, whereas 34.9% and 6.9% only were on triple and quadruple therapy in the usual care group. With pharmacist involvement in medication titrations, all patients in the intervention group achieved maximum tolerated dose of GDMT at program discharge while only 21% of patients in the usual care group achieved optimal GDMT after 12 months follow-up. In the intervention group, 18.8% patients required regular Frusemide taking, with mean dose of 44.2+/-28.1mg/day, compared with 23.3% patients in the usual care group, with mean dose of 115+/-73.1mg/day ( $p=0.027$ ).

Among the intervention group, there was significant improvement of LVEF from 26.5% to 45.7% upon program discharge ( $p<0.001$ ). 6-minute walk distance was improved from 355m to 440m ( $p<0.05$ ) and the Kansas City Cardiomyopathy Questionnaire score improved from 68 to 88 ( $p<0.05$ ). These signified a favorable impact on patient's QoL.

**Conclusion:** Multidisciplinary care with pharmacist contribution reduced HF-related hospitalizations and improved overall patient outcomes with the effort of medication

reconciliation, patient education and early-optimization of GDMT.

Keywords: Heart failure, Pharmacist, Care transitions, Healthcare quality, Multidisciplinary care

## **D5. Performing Mannitol Challenge Test with an Active Mannitol Dry Powder Dispersion System for Asthma Diagnosis and Monitoring**

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### **Abstract**

**Background:** Asthma control is a key step in ensuring the quality of life and well-being of asthmatic children. The accurate and timely assessment of asthma is one of the cornerstones in achieving a desirable level of control. Currently, the mannitol challenge test indicating the level of airway inflammation and hyperresponsiveness of patients is widely used in the diagnosis of asthma for patients  $\geq 6$  years. Since paediatric patients often have trouble inhaling the required dose of mannitol within the designated test time, we designed and tested an active mannitol dry powder dispersion system to aid the delivery of mannitol. Our work aims to extend the usefulness of the mannitol challenge test to younger patients for asthma assessment and control.

**Methods:** Both *in vitro* and clinical performance of the designed active dry powder dispersion system have been evaluated. The *in vitro* aerosol performance was characterised through the fine particle fraction (FPF, % mass of particles with an aerodynamic diameter  $\leq 5 \mu\text{m}$ ) of the dispersed mannitol powder using a multi-stage liquid impinger (MSLI). The suitability of inhalers of different resistances (RS-01-High and RS-01-low) and flow rates of 20–40 L/min, which best represent the inhalational flow of paediatric patients, were investigated. Then, the best set-up and operating conditions were carried forward for clinical evaluation in seven patients aged 8–15 years old and were diagnosed with asthma. Their forced expiratory volume in 1 second (FEV<sub>1</sub>) values prior to and after the administration of mannitol dispersed by the dispersion system were measured.

**Results:** *In vitro* testing showed that the high-resistance RS-01 inhaler had comparable aerosol performance with the low-resistance counterpart at higher dispersion flow rates (30 and 40 L/min). The FPF was found to be  $\sim 29.3\%$ , comparable with the value obtained from normal dispersion performed according to the pharmacopeia guideline. At the lowest dispersion flow



rate of 20 L/min, the RS-01-high inhaler showed superiority in dispersing the mannitol powder (FPF=30.4%) over the RS-01-low inhaler (FPF=19.4%). Since RS-01-low inhaler comes with the original mannitol test kit, the designed set-up with a dispersion flow rate of 30 L/min was chosen for further trial on asthmatic patients. Three out of the seven tested subjects showed a positive response (FEV<sub>1</sub> value dropped by 15% from baseline) to the mannitol challenge test performed with the active dry powder dispersion system.

**Conclusion:** An active dry powder dispersion system was developed to perform mannitol challenge tests for pediatric patients with asthma. The preliminary clinical data suggested promising results. Our future work includes validating the applicability of this novel system in larger clinical trials and in patients below 6 years old.

## **D6. A review on Dietary Influence on ASD and ADHD Comorbidity Patients**

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### **Abstract**

Autism Spectrum Disorder (ASD) and Attention Deficit Hyperactivity Disorder (ADHD) are neurodevelopmental disorders that affect millions of people worldwide. While traditional treatments such as medication and therapy remain the primary options for managing these disorders, dietary interventions have gained attention as a potential complementary approach (Sprenger et al., 2013).

Gluten-free and casein-free (GFCF) diets have been investigated as a nutritional intervention for autism spectrum disorder (ASD), but the outcomes have been inconsistent. While some studies have reported enhancements in behavior and communication, others have found no significant results (Mulloy et al., 2010). However, a GFCF diet may be useful for individuals with ASD who have gluten sensitivity (Buie et al., 2013).

Meanwhile, a Mediterranean-style diet has been shown to be beneficial for children ADHD. Studies have reported improvements in attention, hyperactivity, and impulsivity (Ríos-Hernández et al., 2016; Sánchez-Villegas et al., 2013). Toxins and food additives have also been implicated in the onset and severity of ASD and ADHD symptoms. For instance, lead exposure has been associated with an increased risk of ADHD, while exposure to certain pesticides and chemicals has been linked to an increased risk of ASD (Kumar & Agarwal, 2015). Additionally, artificial colors and flavors have been suggested to exacerbate hyperactive behavior in children with ADHD (Nigg et al., 2012).

Omega-3 fatty acids, which are commonly found in fish and seafood, have been investigated



for their potential benefits in managing ADHD symptoms. Several studies have reported improvements in attention, hyperactivity, and impulsivity with omega-3 supplementation (Johnson et al., 2017). However, the evidence for the effectiveness of omega-3 supplementation in ASD is limited, and further research is warranted to determine its potential benefits for this population.

In addition to dietary interventions, it is important for individuals with ASD and ADHD to maintain a healthy lifestyle, including adequate water intake. Dehydration can exacerbate symptoms of ADHD, such as irritability and inattention (Kuo et al., 2012). Furthermore, certain food colorings, such as tartrazine, have been linked to hyperactivity in children with ADHD (Arnold et al., 2012). Therefore, individuals with these disorders should be mindful of their water intake and avoid foods and drinks that contain artificial colors.

Dietary interventions complement ASD and ADHD management, but evidence is equivocal. GFCF diet benefits gluten sensitivity, Mediterranean-style diet helps ADHD. Avoid toxins and additives. Omega-3 supplementation has potential for managing ADHD. Healthy lifestyle, water intake, and avoiding artificial colors are necessary for managing these disorders.

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## **D7. Impact of Pharmacist Intervention on Unplanned Hospital Readmission Rate for Patients Admitted for Cardiovascular Diseases in Emergency Medicine Ward (EMW): A Prospective Trial**

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### **Abstract**

**Introduction:** Patients with cardiovascular diseases are prone to drug non-adherence and medication-related problems, especially at transitions of care. As ward-based pharmacist service and post-discharge follow-up have been well-studied to improve clinical outcomes in other settings, a structured pharmacist service was launched in a short-stay medical unit named Emergency Medicine Ward (EMW).

**Objectives:** (1) to enhance pharmaceutical care for EMW patients admitted for cardiovascular diseases during hospitalisation and after discharge; (2) to evaluate the clinical impact of pharmacist service on unplanned 30-day readmission rates and drug adherence.

**Methodology:** A single-centered, prospective, quasi-experimental design was adopted. Adult patients admitted to EMW in United Christian Hospital (UCH) for cardiovascular diseases or related symptoms with at least one medication for cardiovascular diseases at discharge were recruited in the intervention group. They received medication review, bedside counselling and two post-discharge follow-ups. They were matched with historical control patients in UCH via propensity score matching. The primary outcome was the unplanned all-cause 30-day readmission rate analysed by McNemar's test and multivariable logistic regression. The secondary outcomes were drug-related 30-day unplanned readmission rate, changes in drug adherence assessed with Adherence Scale in Chronic Diseases (ASCD) and analysis on drug-related problems and pharmacist interventions.

**Results and Outcomes:** 142 patients were included for both intervention and usual care group for the intention-to-treat analysis. A significantly lower unplanned all-cause 30-day readmission rate was observed in the intervention group (12.7% vs 28.9%,  $P=0.001$ ; OR:0.25, 95% CI:0.11-0.57,  $P=0.001$ ); Similar result was also seen in unplanned drug-related 30-day

readmission rate (7.0% vs 20.4% P=0.002; OR: 0.19, 95% CI:0.07 - 0.50, P<0.001). A significant increment was observed in the proportion of patients with high drug adherence level in ASCD after intervention (18.3% vs 53.4%, p <0.001). 119 interventions were made for 123 drug-related problems identified for the intervention group. 42% of the interventions were at prescriber level, and 92% of them were accepted and fully implemented.

## **Parallel Session E: Business Development Opportunities**

### **E1. Green Healthcare Centre: Evaluating Indoor Environment Quality using LEED Rating System from Healthcare Professional Perspectives**

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#### **Abstract**

Environmental issues are important concern world-wide. Buildings, including hospitals and healthcare centres, especially for seniors would exerts significant impact on the local and even global environments. Therefore, sustainable building practices are necessary to minimize potential negative impacts and provide good quality and healthy environments.

Following the trend is a variety of assessment about the environmental and energy impacts of buildings such as the Green Leaf, EU Eco-Label, HK-BEAM, LEED and etc. The latter - The Leadership in Energy and Environmental Design (LEED) - Rating System (sustainability building scheme) which was developed by the U.S. Green Building Council in the late 1990's is a third-party certification program and is the most recognized green building assessment tool in the U.S. and has becoming popular in Asian countries. One of the main aims of the green building movement has been a desire to create a healthy indoor environment for building occupants. As such, hospitals or healthcare centres are one of the essential programmed sets of assessment.

With the demand for more quality healthcare centres and hospitals in accompaniment of the envisaging rapid increase in aging population as well as the directives embedded in the development guidelines of Greater Bay Area, it appears a need to raise and broaden the health care professionals' understanding about the content of rating criteria of quality health care facilities. In light of the situation, our study aims to 1) Identify the literal comment on the documented IEQ criteria; 2) Ascertain local occupants' perspectives on the rating criteria of IEQ and 3) Suggest research areas addressing the inquiry of IEQ. Our study reviewed the updated version of LEED for health care projects. After then, the study will interview with those health care professionals working with more than ten years in Hong Kong and Macau.

The interview is conducted with semi-structured format. To assist the communication smoother and easy to be followed, we will basically follow the LEED rating system. LEED is organized

into six main areas: 1) Sustainable Sites; 2) Water Efficiency; 3) Energy and Atmosphere; 4) Materials and Resources; 5) Innovation in Design Process and 6) Indoor Environmental Quality (IEQ). Among these six areas, the present study focuses on investigating the criteria of IEQ.

Initially, the results of the study sheds light that meeting the criteria of IEQ requires a substantial amount of personnel trained in the area, particularly the sub-area under indoor air quality. Nevertheless, existing implementation of IEQ has been assigned as the key tasks of facilities management team of the public health care environment and majority of the remaining practitioners have had limited time and knowledge in this area. Thus, in view of the constrained resources and the huge amount of workload of existing practitioners in the public healthcare settings, the study anticipates the delivery of training and subsequent follow up on IEQ is a foreseeable challenge.

Our study suggests that there is a need to form a pool of green volunteers who are trained in IEQ to assist healthcare centres, senior homes and day-care centres to carry out the IEQ related actions as a kind of social services. To make the initiatives to be launched effectively, effort in the research & development of low cost sampling and monitoring sensors is deemed to be necessary. Thus, a kind of non-government organization as an independent and low cost party to coordinate and administering the launching of the initiative may raise the opportunity of successful implementation.

## **Parallel Session F: Challenges and Development of Rare Disease Management and Policy**

### **F1. Rare disease is not rare**

Brian CHUNG

*Hong Kong Genome Institute*

### **F2. Importance of Patient Registry for clinical advancement**

Edwin CHAN

*The Chinese University of Hong Kong*

### **F3. Confession from the family with Rare disease**

Rebecca YUEN

*Tuberous Sclerosis Complex Association of Hong Kong*

### **F4. Speak for us, a new value for public policy**

Joephy W. Y. CHAN

*Legislative Council*

**F5. Improving the Diagnosis of Rare Genetic Diseases through CoGenesis: an Integrated Bioinformatics Platform**

Allen YU, Aldrin YIM

*Codex Genetics Limited*

**F6. R&D for new drugs**

Ivan LEE

*Lee's Pharmaceutical (HK) Limited*

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