

COLLEGE OF PROFESSIONAL AND CONTINUING EDUCATION 專業及持續教育學院 Centre for Ageing and Healthcare Management Research 毛動化和醫療質導動完中心



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# **CPCE-SHAPE Health Conference 2024**

# <image>

# Healthcare system sustainability:

### Implications for healthcare management, education and research

- Date: 8 & 9 July 2024 (Monday & Tuesday)
- Time: 9:00 am 4:00 pm (HKT)
- Venue: UG06, PolyU Hung Hom Bay Campus, 8 Hung Lok Road, Hung Hom, Kowloon, Hong Kong, China (Face-to-Face)
   - Zoom meeting (Online)

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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 ninth CPCE Health Conference since 2016 and it has the theme of "Healthcare system sustainability: Implications for healthcare management, education and research". The conference is jointly organised by Centre for Ageing and Healthcare Management Research, College of Professional and Continuing Education, The Hong Kong Polytechnic University and Society for Health Administration Programs in Education, Australia.

Speakers for the Keynote Presentations on 8 July 2024 include: (1) Professor Peter P. YUEN, Dean, College of Professional and Continuing Education, The Hong Kong Polytechnic University, to speak on "Healthcare Financing is the Key to Healthcare Systems Sustainability: The Case of Hong Kong", (2) Professor Neale FONG, President, Australasian College of Health Service Management, Australia, to speak on "Health Care Systems Sustainability: The *Role of Health Care Management Education and Continuing Professional Development*<sup>7</sup>, (3) Professor Tomonori HASEGAWA, Professor, Toho University School of Medicine, Japan, to speak on "Redefining Healthcare Sustainability: Adapting to Aging Populations and Shifting Care Needs", (4) Professor Gordon LIU, Peking University BOYA Distinguished Professor of Economics, China, to speak on "Political Economy of Health", and (5) Professor Dongwoon HAN, Professor, College of Medicine, Hanyang University, South Korea, to speak on "Preparing National Health Systems to Cope with the Impending Super Ageing and Its Associated Complexities in Korea: Towards a More Sustainable Health System". Speakers for the Keynote Presentations on 9 July 2024 include: (1) Dr Louise SCHAPER, Director, Comperio Pty Ltd and Former CEO, Australian Institute of Digital Health, Australia, to speak on "Preparing the Health Workforce for Health in the Age of Digital and AI", (2) Dr Jalal MOHAMMED, Senior Lecturer, University of Canterbury, New Zealand; SHAPE Executive, to speak on "Designing Innovative Health Management Programmes for Sustainable Healthcare Systems", (3) Dr Hui ZHANG (Vivienne), Associate Professor, Department of Health Policy and Management, Sun Yat-sen University, China, to speak on "Evaluation of the Effect of Medical Consortium on Inpatient Services Utilization and Costs in Guangzhou City, Southern China—Analysis Based on a Difference-in-Difference Method", (4) Professor Bhuputra PANDA, Professor & Director, School of Public Health, KIIT Deemed to be University, India, to speak on "Health System Resilience and Sustainability in India: Opportunities and Challenges", and (5) Dr Mathuros TIPAYAMONGKHOLGUL, Associate Professor, ASEAN Institute for Health Development, Mahidol University, Thailand,

to speak on "The Role of Primary Health Care in Sustaining the Health System During the Public Health Emergencies in Thailand".

There are seven parallel sessions on 8 July and six parallel sessions on 9 July containing a wide range of important topics pertinent to competence, practices and research, digital health and innovation, social determinants of health, health management curriculum, primary healthcare, population ageing, universal health coverage, and presentation + feedback.

### **II. ORGANISATION OF CONFERENCE**

### **Conference Co-Chairs**

### **Professor Peter P. YUEN**

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

### A/Professor Zhanming LIANG

President,

Society for Health Administration Programs in Education, Australia

### **Joint Organisers**

Centre for Ageing and Healthcare Management Research, College of Professional and Continuing Education, PolyU

Society for Health Administration Programs in Education, Australia

### **Organising Committee**

| Chair          | Dr Ben Y. F. FONG, Associate Division Head and Professor of   |
|----------------|---|
|                | Practice (Health Studies), Division of Science, Engineering and   |
|                | Health Studies, PolyU CPCE  |
| Members        | A/Professor Zhanming LIANG, President, Society for Health   |
|                | Administration Programs in Education, Australia; Associate  |
|                | Dean, College of Public Health, Medical and Veterinary  |
|                | Sciences, James Cook University   |
|                | <b>Dr Fowie NG</b> , Associate Professor, School of Management, Tung<br>Wah College; Vice President, Hong Kong College of Health<br>Service Executives; Deputy Chair, Society for Health<br>Administration Programs in Education, Australia |
|                | Dr Vincent T. S. LAW, Senior Lecturer, Division of Social Sciences,   |
|                | Humanities and Design, PolyU CPCE   |
|                | <b>Dr Simon T. Y. CHEUNG,</b> Head, Continuing Education Office,<br>PolyU CPCE  |
|                | <b>Dr Oscar W. K. CHIU</b> , Senior Lecturer, Division of Science,<br>Engineering and Health Studies, PolyU CPCE  |
| Secretary      | Mr Tommy K. C. NG, Project Associate, Centre for Ageing and<br>Healthcare Management Research (CAHMR), PolyU CPCE   |
| Scientific Com | mittee  |
| Chair          | Dr Fowie NG, Associate Professor, School of Management, Tung  |

**Dr Fowie NG**, Associate Professor, School of Management, Tung Wah College; Vice President, Hong Kong College of Health Service Executives; Deputy Chair, Society for Health Administration Programs in Education, Australia

### Members

- Ms Anne SMYTH, Member, SHAPE Management Committee
- **Dr Vincent T. S. LAW**, Senior Lecturer, Division of Social Sciences, Humanities and Design, PolyU CPCE
- **Dr Pimtong TAVITIYAMAN**, Principal Lecturer and Associate Division Head, Division of Business and Hospitality Management, PolyU CPCE
- **Dr Oscar W. K. CHIU**, Senior Lecturer, Division of Science, Engineering and Health Studies, PolyU CPCE
- **Dr Karly CHAN**, Senior Lecturer, Division of Science, Engineering and Health Studies, PolyU CPCE

### **Supporting Organisations**

- · Australasian College of Health Service Management
- Centre for Health Education and Health Promotion, The Chinese University of Hong Kong
- · College of Pharmacy Practice
- Department of Applied Science, Hong Kong Institute of Vocational Education (Kwai Chung)
- DoctorNow NEEDS
- · Gain Miles Assurance Consultants Limited
- · 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 Health Service Executives
- · 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 Telemedicine Association
- Li Ka Shing School of Professional and Continuing Education, Hong Kong Metropolitan University
- Rare Disease Hong Kong
- · Rehabilitation Alliance Hong Kong
- · Research Centre for Gerontology and Family Studies, PolyU
- · Research Centre for Green Business, PolyU SPEED
- · School of Chinese Medicine, The Chinese University of Hong Kong
- · Sik Sik Yuen
- · Society for Innovative Healthcare HK

- · Society for the Promotion of Hospice Care
- The Hong Kong Society for Rehabilitation
- The HKMA Institute of Healthcare Management
- The Society of Hospital Pharmacists of Hong Kong
- Tung Wah College

### **Sponsor**

• Human Health HK Limited

### **III. PROGRAMME**

### **Speakers**



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 Financing is the Key to Healthcare Systems Sustainability: The Case of Hong Kong

Prof. Peter P. Yuen is Dean of the College of Professional and Continuing Education (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 Services 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.



### Professor Neale FONG

President, Australasian College of Health Service Management, Australia

# Health Care Systems Sustainability: The Role of Health Care Management Education and Continuing Professional Development

Professor Neale Fong has more than 35 years' experience in medical, health care and aged care leadership roles. He is currently the Chief Executive Officer of Bethesda Hospital, Chair of the Western Australian Government Country Health Service Board, President of the Australasian College of Health Service Management, and a Non-Executive Director of ASX-listed companies Little Green Pharma and Intelicare Ltd, and the Australian Government Digital Health Collaborative Research Centre. He is an adjunct Professor of Healthcare Leadership at Curtin University and was Project Director for the establishment of the Curtin Medical School. He was formerly the Director General of the WA Department of Health and Chief Executive Officer of St John of God Hospital Subiaco. He currently consults widely through Australis Health Advisory to health clients in governance, implementation of reform and change management, developing strategic directions and leading turnarounds. He holds Bachelor's degrees in Medicine and Surgery, a Masters in Business Administration from the University of WA and a Masters in Theological Studies from the University of British Columbia.



Professor Tonomori HASEGAWA

Professor, Toho University School of Medicine, Japan

### **Redefining Healthcare Sustainability: Adapting to Aging Populations and Shifting Care** Needs

Prof. Hasegawa is a Professor and Chair of the Division of Health Policy and Health Service

Research Department of Social Medicine at the Toho University School of Medicine of Japan. He had his medical education at the Tokyo University School of Medicine, where he also received his Doctor of Philosophy. He was previously a Resident at the Tokyo University Hospital in Internal Medicine.

He is a member of the Japanese Society of Public Health, Japanese Society of Hygiene, Japanese Society of Transplantation, Japanese Society of Hospital Administration, and Japanese Society of Healthcare Management. He also holds membership of the following specialist councils or committees: Ministry of Labour, Health and Welfare, Committee on Disclosure of Healthcare Information, Committee on the Administration of Healthcare Organisations, Cabinet Office Council for Regulatory Reform, Office for the Promotion of Regulatory Reform and Private Finance Initiative, Japan Council for Quality in Health Care Center for Medical Accident Prevention (vice-chair).

Prof. Hasegawa's research background includes health policy, health economics, and quality assessment of health care.



### Professor Gordon LIU

Peking University BOYA Distinguished Professor of Economics, China

### Political Economy of Health

Gordon G. Liu, Ph.D., Peking University (PKU) BOYA Distinguished Professor of Economics at the PKU National School of Development, Dean of PKU Institute for Global Health and Development, and an elected member of the Chinese Academy of Medicine, and Director of PKU China Center for Health Economic Research. Professor Liu currently serves as the Chinese co-organizer of the U.S.-China Track II Dialogue on Healthcare, and sits on the State Council Health Reform Advisory Commission. He was previously on the fulltime faculty at the University of Southern California, UNC-Chapel Hill, and PKU Guanghua School of Management.

He has served as associate editor for several academic journals including China Economic Quarterly and Health Economics, and the editor-in-chief for the China Journal of Pharmaceutical Economics.



Professor Dongwoon HAN

Professor, College of Medicine, Hanyang University, South Korea

### Preparing National Health Systems to Cope with the Impending Super Ageing and Its Associated Complexities in Korea: Towards a More Sustainable Health System

Prof. Dongwoon HAN, MD, MPH, PhD (in health service management) is a Professor at College of Medicine, Hanyang University, College of Medicine, and the Chairperson of Global Health and Development. He was also a chairperson of both the Department of Preventive Medicine, College of Medicine, and the Department of Medical Administration at Graduate School of Public Policy. He is also currently the Director of Institute of Health Services Management, Hanyang University. He received a bachelor's degree in medicine from College of Medicine, Hanyang University College of Medicine, master's degree (MPH) from Seoul National University, Graduate School of Public Health, and a doctoral degree from The University of Birmingham (UK). Prof. Han was a member of WHO working group for various health related topics including traditional medicine. For many years, he has worked as shortterm consultant at many developing countries, Vietnam, Nepal, Cambodia, Iraq, Afghanistan, Peru, Honduras and so on. In his country, he has advised national and local governments on health promotion, health planning, and Official Development Assistant (in Health). Since 2004, he has been working to establish a public health programme using traditional Korean medicine in public health care system. Prof. Han is serving as Director of the National Traditional Korean Medicine Research and Development Centre. From 2010 to 2012, he had also directed a research team on the evaluation of Korean Case Payment System (KCPC) funded by the Health Insurance Review Agency (HIRA).



### Dr Louise SCHAPER

Director, Comperio Pty Ltd and Former CEO, Australian Institute of Digital Health, Australia

### Preparing the Health Workforce for Health in the Age of Digital and AI

Dr Schaper is on a mission to fix healthcare. She is an internationally renowned digital health leader and passionate advocate for innovation of the health ecosystem at scale. She has 20 years' experience as a catalyst at the intersection of innovation and health, including a 14 year tenure as CEO of the Australasian Institute of Digital Health. Dr Schaper has a background as an occupational therapist, a PhD in technology acceptance among health professionals, is a graduate of Stanford's Executive Leadership Program, a Certified Health Informatician, a Salzburg Global Seminar Fellow and a Fellow of both the International Academy of Health Sciences Informatics and the Australasian Institute of Digital Health. Through her company, the Health Intelligence Agency, Louise advises companies, start-ups and governments on strategy, policy, commercialisation, and approaches to empower the health workforce and consumers. She is always online and yes, she has the coolest job!



### Dr Jalal MOHAMMED

Senior Lecturer, University of Canterbury, New Zealand; SHAPE Executive

# Designing Innovative Health Management Programmes for Sustainable Healthcare Systems

Dr Jalal Mohammed is an award-winning academic, consultant and health management specialist with over 17 years of experience in the education and health sectors. Jalal centres his practice around the learner. His particular interest in creating engaging technology-enhanced learning environments has won teaching excellence awards and international recognition through his role in advising the UNDP Pacific Office on e-Learning.

Jalal is a Senior Lecturer (Above the Bar) at the University of Canterbury. Previously, he was Head of the Department of Public Health at the Auckland University of Technology. He is also an Adjunct Professor with the University of Fiji. He is also an Executive Member of the Aotearoa Fiji Research Collective and founder of the Pacific Online Learning and Teaching Network, a community of practitioners across the Pacific committed to developing online learning and teaching in the region. He has also served on the National Council of the Public Health Association of New Zealand.

Jalal holds a doctoral degree in public health focusing on health systems and several Master's degrees in Public Health, Education and Business Administration. Dr Mohammed is also a Fellow and Certified Health Executive of the Australasian College of Health Services Management and an Associate Fellow of the Higher Education Research and Development Society Australasia. He lives in Christchurch, New Zealand.



### Dr Hui ZHANG (Vivienne)

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

Evaluation of the Effect of Medical Consortium on Inpatient Services Utilization and Costs in Guangzhou City, Southern China——Analysis Based on a Difference-in-Difference Method

Professor 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 policy evaluation, health insurance reform, economic burden of diseases, and telemedicine evaluation. 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 Bhuputra PANDA

Professor & Director, School of Public Health, KIIT Deemed to be University, India

### Health System Resilience and Sustainability in India: Opportunities and Challenges

Prof. (Dr.) Bhuputra Panda is a well-accomplished public health professional of national repute, with over two decades of teaching, training and practice in public health. He has a doctoral degree from TISS (Mumbai) and a Gold Medalist in Health Administration during his Master's programme from the same Institute. He worked for about a decade on specific thematic domains and in international organizations, such as, Pathfinder International (adolescent reproductive health), Sightsavers International (eye care), CARE International and CINI (child health), and Ministry of Health, Govt of Odisha (capacity building). From 2010 onwards he is actively involved in the academic and research world (PHFI and currently in KIIT Deemed to be University) focusing more on health systems health services research, public health teaching, training and advocacy. His key domains of interest are: health systems and health services research, policy and governance in health, maternal and child health, heat stress, tobacco control and programme evaluation. He has collaborated with several international and national donor agencies, research organizations and academic institutions, including the BMGF, Tata Trusts, Govt of India - Ministry of Health, Govt of India - Ministry of AYUSH, UNICEF, Avanta Foundation, World Food Programme, Wellcome Trust, MMV, NHM Odisha, State governments of Odisha, Chhattishgarh, Maharashtra, West Bengal, Rajasthan and Madhya Pradesh. Dr Panda has substantial collaborative work with Access Health International, Harvard T.H Chan School of Public Health, University of Michigan, Johns Hopkins Bloomberg School of Public Health, Mahidol University School of Public Health, University of Sydney and Kent State University, USA.



### Dr Mathuros TIPAYAMONGKHOLGUL

Associate Professor, ASEAN Institute for Health Development, Mahidol University, Thailand

### The Role of Primary Health Care in Sustaining the Health System During the Public Health Emergencies in Thailand

Dr. Tipayamongkholgul is the Acting Deputy Director for Research and Academic Affairs at the ASEAN Institute for Health Development, Mahidol University. Previously, she served as a public health officer at the Department of Disease Control within the Thailand Ministry of Public Health. In this role, she was instrumental in the Plan Formulation and Evaluation Section at the Bureau of AIDS, Tuberculosis, and Sexually Transmitted Diseases.

Her transition to Mahidol University followed the completion of her doctorate degree in Epidemiology from the College of Public Health at National Taiwan University. At Mahidol, she initially took on the role of Chair of the Master of Public Health Program, overseeing epidemiology-related courses, leadership and public health skill development, and universal health coverage initiatives.

Throughout her academic career, Dr. Tipayamongkholgul has made significant contributions to a variety of research areas, including infectious disease epidemiology, mental health epidemiology, program and policy evaluation, and implementation research. Her work continues to impact public health policies and practices.

### **Moderators of Keynote Presentations**



Dr Hon David LAM Tzit-yuen Legislative Council Member, HKSAR



Dr S. H. LIU President, Society for Innovative Healthcare Hong Kong



A/Professor Zhanming LIANG

President, Society for Health Administration Programs in Education, Australia



Dr Hok Cheung MA President, Hong Kong College of Health Service Management



Dr Fowie NG

Associate Professor, School of Management, Tung Wah College

### **Moderators of Parallel Sessions**

8 July 2024 (Monday) Session A: Competence, practices and research



Dr Jalal MOHAMMED

Senior Lecturer, University of Canterbury, New Zealand; SHAPE Executive

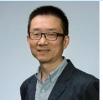
### Session B: Digital health and innovation & Session C: Social determinants of health



Ms Anne SMYTH

Senior Consultant, LDC Group

Session D: Health management curriculum & Session E: Primary healthcare



Professor George LIU

Associate Dean, Partnerships, Office of Psychology & Public Health, La Trobe University

Session F: Population ageing & Session G: Presentation + Feedback



Dr Ledua TAMANI

Assistant Professor, Fiji National University

9 July 2024 (Tuesday) Session A: Competence, practices and research & Session B: Digital health and innovation



Ms Paula BOWMAN

Lecturer, Faculty of Health, School of Public Health & Social Work, Queensland University of Technology

**Session C: Population ageing** 



### Dr Lei SI

Associate Professor, Health Services Management, Western Sydney University

### Session D: Primary healthcare & Session E: Universal health coverage



Dr Hanan KHALIL

Associate Professor, Health Practice & Management, La Trobe University

### **Session F: Presentation + Feedback**



Dr Judith DAIRE

Lecturer, Curtin School of Population Health, Faculty of Health Sciences, Curtin University

### Programme Rundown

8 July 2024 (Monday)

| 8 July 2024 (N   |   |
|------------------|---|
| Time             | Event   |
| 9:00 am –        | Registration and Coffee   |
| 9:15 am          |   |
| 9:15 am –        | OPENING CEREMONY  |
| 10:00 am         | Guest of Honour   |
|                  | Dr LEE Ha-yun, Libby (Under Secretary for Health, HKSAR)                              |
|                  |   |
|                  | Welcoming   |
|                  | <b>Prof. Peter P. YUEN</b> (Conference Chair and Dean, PolyU CPCE)                    |
|                  |   |
|                  | A/Professor Zhanming LIANG (Conference Chair and President, Society for               |
|                  | Health Administration Programs in Education, Australia)                               |
|                  |   |
|                  | Opening Address   |
|                  | Dr Hon David LAM Tzit-yuen (Legislative Council Member, HKSAR)                        |
|                  | PRESENTATION I  |
| Moderator:       |   |
| Dr Hon David     | d LAM Tzit-yuen (Legislative Council Member, HKSAR)                                   |
| 10:00 am –       | Healthcare Financing is the Key to Healthcare Systems Sustainability: The Case of     |
| 10:30 am         | Hong Kong   |
|                  | <b>Prof. Peter P. YUEN</b> (Conference Chair and Dean, PolyU CPCE)                    |
|                  |   |
| <b>KEYNOTE F</b> | PRESENTATION II   |
| Moderator:       |   |
| Dr SH LIU (1     | President, Society for Innovative Healthcare Hong Kong)                               |
| 10:30 am –       | Health Care Systems Sustainability: The Role of Health Care Management                |
| 11:00 am         | Education and Continuing Professional Development                                     |
|                  | <b>Dr Neale FONG</b> (President, Australasian College of Health Service Management,   |
|                  | Australia)  |
| 11:00 am –       | Morning Tea Break   |
| 11:30 am         |   |
|                  | PRESENTATIONS III - V   |
| Moderator:       |   |
|                  | Zhanming LIANG (Conference Chair and President, Society for Health                    |
|                  | n Programs in Education, Australia)   |
| 11:30 am –       | Redefining Healthcare Sustainability: Adapting to Aging Populations and Shifting      |
| 12:00 pm         | Care Needs  |
|                  | <b>Prof. Tomonori HASAGAWA</b> (Professor, Toho University School of Medicine,        |
|                  | Japan)  |
| 12:00 pm –       | Political Economy of Health   |
| 12:30 pm         | <b>Prof. Gordon LIU</b> (Peking University BOYA Distinguished Professor of Economics, |
|                  | PKU National School of Development; Dean, PKU Institute for Global Health and         |
|                  | Development, China)   |
| 12:30 pm –       | Preparing National Health Systems to Cope with the Impending Super Ageing and         |
| 1:00 pm          | Its Associated Complexities in Korea: Towards a More Sustainable Health System        |
|                  | <b>Prof. Dongwoon HAN</b> (Professor, College of Medicine, Hanyang University, South  |
|                  | <i>Korea</i> )  |
| 1:00 pm –        | Lunch   |
| 2:30 pm          |   |
| PARALLEL         | SESSIONS  |
|                  |   |

| -                                 | Venue: UG06<br>Moderator: Dr Jalal MOHAMMED (University of Canterbury)  |
|-----------------------------------|---|
|                                   |   |
|                                   | Toterator. Di sului morni minibili (onaversary of cumeroary)  |
| р                                 | 1) <b>Building management capacity of hospitals</b> – an integrative and co-design process (Zhanming LIANG, <i>James Cook University</i> ; Hui ZHANG, <i>Sun Yat-sen University</i> )   |
| (2                                | 2) Nurse-driven genetic counselling in genomic healthcare: an integrative iterature review (Alison K. K. CHU, <i>Saint Francis University</i> )   |
| (4<br>C<br>D<br>0<br>(5<br>V<br>V | <ul> <li>3) Climate change and value-based health care (Chaojie LIU, <i>La Trobe University</i>)</li> <li>4) Sustainability of Hospital Accreditation Programs in Low- and Middle-Income Countries (LMICs): Lessons Learned from Sri Lanka (Dharmagunawardene DILANTHA, <i>Ministry of Health, Sri Lanka</i>; Bowman PAULA, <i>Queensland University f Technology</i>; Avery MARK, Hinchcliff, REECE, <i>Griffith University</i>)</li> <li>5) Changes in attitude, knowledge, and behavior: A case study on interactions of oung and older adults in Hong Kong (Chaoying LI, Daniel W. L. LAI, <i>HKBU</i>; Xue BAI, <i>PolyU</i>)</li> </ul> |
| S                                 | ession B: Digital health and innovation   |
| V                                 | Venue: UG05<br>Moderator: Anne SMYTH (University of New England)  |
| B<br>((2<br>V<br>N<br>(3          | <ol> <li>Retinal vascular fingerprints predict incident stroke: findings from UK<br/>Biobank study (Danli SHI, Mayinuer YUSUFU, Mingguang HE, <i>PolyU</i>)</li> <li>Cybersecurity in Rural Healthcare Practices: An exploration to their systems'<br/>ulnerabilities (Carmen REAICHE, Saad BUTT, Stephen BOYLE, Akbari<br/>MOHAMMADREZA, <i>James Cook University</i>)</li> <li>The sensitivity of wearable sensor on fall risk prediction for community-</li> </ol>   |
|                                   | welling older people in Hong Kong: A prospective cohort study (Martin K. M. AI, <i>Hong Kong Red Cross</i> ; Kenneth N. K. FONG, <i>PolyU</i> )   |
|                                   | ession C: Social determinants of health   |
|                                   | Venue: UG05<br>Anne SMYTH (University of New England)   |
| in                                | 1) The Road Home - building the evidence base for a service delivery model that <b>ntegrates housing, mental health, medical and legal services</b> (Anne SMYTH, <i>Iniversity of New England</i> )   |
| w<br>in<br>P                      | 2) Role of social determinants of health in reproductive cancer care among <b>vomen: A cross-sectional survey from diverse demographic and regional settings n India</b> (Padmaja GADIRAJU, C. VANLALHRUAII, Ranjit Kumar DEHURY,<br>vunam SINGH, Imteyaz AHMAD, <i>University of Hyderabad</i> ; Parthsarathi DEHURY,<br><i>JPH University</i> )   |
| (:<br><b>a</b><br>P               | 3) A Study on the Association between Poverty, Demographics, Family Support,<br>nd Cancer Care in Jharkhand, India (Imteyaz AHMAD, Padmaja GADIRAJU,<br>Punam SINGH, Ranjit Kumar DEHURY, C. VANLALHRUAII, University of<br>Hyderabad; Parthsarathi DEHURY, AIPH University)  |
| V                                 | <b>Session D:</b> Health management curriculum<br>Venue: UG04<br>Anderstor: Prof. Coorgo L UL (L.g. Trache University)  |
| (1                                | Moderator:       Prof. George LIU (La Trobe University)         1)       Building graduate capabilities of students in Health Administration course         hrough a skills development approach to assessments (Judith DAIRE, Curtin)  |

University)

(2) **Organizational Learning in Healthcare Organizations** (T. M. WUT, Yvonne L. F. WONG, Nikita W. S. CHAN, *PolyU SPEED*)

(3) Effectiveness of a cardiopulmonary resuscitation curriculum for self-efficacy improvement among high school students in Thailand (Sumalin SITTHIWONG, Sribud SRICHAIJAROONPONG, Nitikorn PHOOSUWAN, Kasetsart University)
(4) Effectiveness of a Health Education Program Applying Knowledge Attitude and Practice Concept on the Pregnancy Prevention among Female High School Students in a Northeast Province in Thailand (Nitikorn PHOOSUWAN, Jareankwan KOTCHARIN, Pattarawarina CHAIYAKHUN, Kasetsart University; Natthida PHOOSUWAN, Nong Pla Pak sub-district municipality office)

Session E: Primary healthcare

Venue: UG04 Moderator: Prof. George LIU (*La Trobe University*)

(1) **Revisiting the determinants of health in Post-COVID era** (Albert LEE, Eman LEUNG, *CUHK*; Hector TSANG, *PolyU*)

(2) Avoidance of medicine wastage in private clinics in Hong Kong: Practitioners' perspectives (Simon YUEN, Calvin CHENG, Helen WONG, *PolyU CPCE*)

(3) Factors associated with quality of life among stroke and non-stroke people in an agricultural province in Thailand: A case-control study (Junjira PHASOM, Nitikorn PHOOSUWAN, *Kasetsart University*)

**Session F: Population Ageing** 

Venue: UG01

Moderator: Dr Ledua TAMANI (Fiji National University)

(1) **Sustainable Solutions for Aging Societies: Nurturing Resilient Communities** (G. V. R. K. ACHARYULU, *University of Hyderabad*)

(2) Adding Life to Years: Comprehensive End-of-Life Care for All (Ryan IP, Dicky CHOW, Dorothy YEUNG, Jessie ZHANG, Betty SHU, *Our Hong Kong Foundation*)
(3) Vision care as a strategy to prevent fall among people with moderate to severe level intellectual disability in hostel setting in Hong Kong (Phil W. S LEUNG, Daphne Y. L. CHAN, Anthony C. H. LEUNG, Miu M. Y. LAW, Queenie M. W. TAM, Carmen S. O. TSANG, S. K. CHAN, *Haven of Hope Christian Service*)

(4) Social Protection for Older People in Bangladesh: Strategies, Innovations, and Challenges (Md Jafar IQBAL, *HKBU*)

**Session G: Presentation + Feedback** 

Venue: UG01

Moderator: Dr Ledua TAMANI (Fiji National University)

(1) Socio-Cultural, Environmental Factors and Physical Activity among Older Adults in Hong Kong: Integration of GIS and Social Survey Research (Alison Y. T. OU, Daniel. W. L. LAI, *HKBU*)

(2) The design of Cinematic Virtual Reality Experiences (CVRE) to improve the well-being of young seniors in Singapore – a proposed study (Keng Hao CHEW, *Nanyang Technological University*)

6:00 pm – Conference dinner

8:30 pm

9 July 2024 (Tuesday)

| 9 July 2024 ('<br><b>Time</b> |   |
|-------------------------------|---|
| -                             | Event   |
| 9:00 am –                     | Registration and Coffee   |
| 9:30 am                       |   |
|                               | PRESENTATION VI – VIII  |
| $\underline{Moderator}:$      |   |
|                               | ang MA (President, Hong Kong College of Health Service Management)  |
| 9:30 am –                     | Preparing the Health Workforce for Health in the Age of Digital and AI  |
| 10:00 am                      | <b>Dr Louise SCHAPER</b> (Director, Comperio Pty Ltd and Former CEO, Australian   |
| 10.00                         | Institute of Digital Health, Australia)   |
| 10:00 am –<br>10:30 am        | Designing Innovative Health Management Programmes for Sustainable Healthcare  |
| 10:50 am                      | Systems<br>Dr Jalal MOHAMMED (Senior Lecturer, University of Canterbury, New Zealand;   |
|                               | SHAPE Executive)  |
| 10:30 am –                    | Evaluation of the Effect of Medical Consortium on Inpatient Services Utilization  |
| 10:30 am –<br>11:00 am        | and Costs in Guangzhou City, Southern China—Analysis Based on a   |
| 11.00 am                      | Difference-in-Difference Method   |
|                               | <b>Dr Hui ZHANG (Vivienne)</b> (Associate Professor, Department of Health Policy and  |
|                               | Management, Sun Yat-sen University, China)  |
| 11:00 am –                    | Morning Tea Break   |
| 11:30 am                      |   |
| KEYNOTE PRESENTATIONS IX – X  |   |
| Moderator:                    |   |
|                               | (Associate Professor, School of Management, Tung Wah College)   |
| 11:30 am –                    | Health System Resilience and Sustainability in India: Opportunities and   |
| 12:00 pm                      | Challenges  |
| -                             | Prof. Bhuputra PANDA (Professor & Director, School of Public Health, KIIT   |
|                               | Deemed to be University, India)   |
| 12:00 pm –                    | The Role of Primary Health Care in Sustaining the Health System During the  |
| 12:30 pm                      | Public Health Emergencies in Thailand   |
|                               | Dr Mathuros TIPAYAMONGKHOLGUL (ASEAN Institute for Health   |
|                               | Development, Mahidol University, Thailand)  |
| 12:30 pm –                    | Closing Remarks   |
| 12:45 pm                      | A/Professor Zhanming LIANG (Conference Chair and President, Society for   |
|                               | Health Administration Programs in Education, Australia)   |
| 12:45 pm –                    | Lunch   |
| 2:30 pm                       |   |
| PARALLEL SESSIONS             |   |
| 2:30 pm –                     | Session A: Competence, practices and research   |
| 4:00 pm                       | Venue: UG06   |
|                               | Moderator: Paula BOWMAN (Queensland University of Technology)   |
|                               | (1) Enhancing System ability in Useltheave Workforge through Conshing. The  |
|                               | (1) Enhancing Sustainability in Healthcare Workforce through Coaching: The secret advantage! (Jonathan REA, Minalli VASANDANI, <i>Griffith University</i> )   |
|                               | (2) National patient satisfaction survey as a predictor for quality of care and   |
|                               | quality improvement - experience and practice (Juan CUI, Jing DU, Ning ZHANG,   |
|                               | Zhanming LIANG, <i>Health Commission of Shandong Province</i> )   |
|                               | Zamming Di 1100, neum Commission of Shandong I Tovince)   |
|                               | Session B: Digital health and innovation  |
|                               | Venue: UG06   |
|                               | Moderator: Paula BOWMAN ( <i>Queensland University of Technology</i> )  |
|                               | mousimon. I unu DO mini na Queensunu Oniversity of Lechnology)  |
|                               | (1) Improving Digital Health Competencies for Health Service Managers in  |
|                               | Australia (Mark Brommeyer, Flinders University; Zhanming LIANG, James Cook  |
|                               | (inter 210 million of 11 million of 1 |

University)

(2) Comparing the Effects of Digital Expressive Arts Therapy on Youth and Older Adults with Mental Disabilities (Joseph L. M. LEE, Helen S. M. WONG, *PolyU CPCE*)

(3) Building Better Mind Maps- Exploratory Study on the healthy adult brain function on mindfulness-based music therapy (RE: Mindful MUSIC) : f NIRIST perspective (Calvin C. K. YIP, *Tung Wah College*; Sunny H. W. CHAN, *University of the West of England*; Armstrong, T. S. CHIU, *The Hong Kong Society for the Blind*; L. L. LUI, *Tung Wah College*; Eunice K. H. LAU, *PolyU*; Michael C. C. KUO, *Tung Wah College*)

(4) Enhancing Elderly Comfort Through 3D-Printed Smart Sole Shoes in Hong Kong (Jenny CHEUNG, Simon K. H. CHOW, Roger K. P. NG, Jim T. C. Luk, Rainbow C. S. Lee, *Technological and Higher Education Institute of Hong Kong*)

Session C: Population Ageing

Venue: UG05 Moderator: Dr Lei SI (*Western Sydney University*)

(1) Comparative Study on Physical Health and Cognitive Status of Elderly Individuals Residing in Urban, Semi-Urban, and Rural Communities (Sudarat BORISUT, Somnuke GULSATITPORN, Praew CHANTARASINLAPIN, *Chulalongkorn University*)

(2) The Effectiveness of Baduanjin on Community Dwellers Among Different Regions in Greater Bay Area (GBA) (H. Y. TSANG, *Hong Kong Institute of Vocational Education (Kwai Chung)*)

(3) Interdisciplinary Story as End-of-Life Healing: Palliative Care Film/Literature (Ian DIXON, Andy HO, *Nanyang Technological University*)

(4) How do Older Adults Cope with IT Safety and Scams when Using Smartphone Applications? (Gigi LAM, *Hong Kong Shue Yan University*; Alex P. K. KWOK, *CUHK*; C. K. TSANG, Bobo H. P. LAU, Eric N. Y. SHUM, Fan Y. F. LUI, *Hong Kong Shue Yan University*)

(5) Elderly Health Care Voucher Scheme: Needs Assessment and Evaluation of Outcomes (Gigi LAM, *Hong Kong Shue Yan University*)

(6) Social capital among older adults: the conceptual underpinnings in the Mainland Chinese socio-cultural context (Wenqing YU, Daniel W. L. LAI, *HKBU*)

Session D: Primary healthcare

Venue: UG04 Moderator: Dr Hanan KHALIL (*La Trobe University*)

(1) Healthcare at Arm's Length: Exploring the Effects of Distance on Health Services Utilization in Odisha, India (Imteyaz AHMAD, Ranjit Kumar DEHURY, University of Hyderabad; Parthsarathi DEHURY, AIPH University)

(2) Developing an interdisciplinary care protocol for patients with knee osteoarthritis (Arkers K. C. WONG, Janice Y. S. HO, *PolyU*)

(3) Maternity care sustainability in rural hospitals in Australia (L. K. JONES, S. ELLIOTT, L. STAFF, *Charles Sturt University*)

Session E: Universal health coverage

Venue: UG04

Moderator: Dr Hanan KHALIL (*La Trobe University*)

(1) Inequities of access to healthcare services related to geographic location in rural Australia: Palliative care case study (Shirley PAPAVASILIOU, Carmen

REAICHE, Samantha PAPAVASILIOU, Stephen BOYLE, *James Cook University*) (2) Access Generic Medicine Genesis through People's Medicine Centre (PMC) in Odisha, India: A Qualitative Study (Ranjit Kumar DEHURY, *University of Hyderabad*; Parthsarathi DEHURY, *AIPH University*; Imteyaz AHMED, *University of Hyderabad*)

Session F: Presentation + Feedback Venue: UG01 Moderator: Dr Judith DAIRE (*Curtin University*)

 A Vision of a Framework for Evaluating and Rating Online Counseling Applications in China (Jiahui ZHAO, Chitat Larry CHAN, *HKBU*)
 Resilience Capacity of Pre-Hospital Ems Providers and the Future Agenda for

Sustainable Development of Resilient Ems System in Thailand (Alina PANT, Thunwadee SUKSAROJ, Cheerawit RATTANAPAN, Orapin LAOSEE, Piyapong JANMAIMOOL, *Mahidol University*)

(3) Environmental design interventions in practice to enhance the well-being of older adults (Zhijing QU, Daniel W. L. LAI, *HKBU*)

(4) Ethnicity and Health and Wellbeing of Older Chinese and South Asians in Hong Kong (Codiez Z. D. HUANG, Daniel W. L. LAI, Alison X. T. OU, *HKBU*)

### **IV. KEYNOTE PRESENTATIONS**

Keynote I: Healthcare Financing is the Key to Healthcare Systems Sustainability: The Case of Hong Kong

**Professor Peter P. YUEN** 

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

Correspondence: Professor Peter P. YUEN (<u>mspeter@cpce-polyu.edu.hk</u>)

### Abstract

Broad environmental and socio-economic factors impinging on the healthcare system are first discussed. It then explores two major factors affecting healthcare system sustainability – population ageing and medical inflation. The various health financing components are then examined in light of population ageing and medical inflation. It points out that the situation is further aggravated by inefficiencies inherent in most healthcare systems, creating huge challenges for health systems sustainability. It concludes that a major change in health care financing is necessary. The case of Hong Kong is used as an illustration.

### Keynote II: Health Care Systems Sustainability: The Role of Health Care Management Education and Continuing Professional Development

### **Professor Neale FONG**

President, Australasian College of Health Service Management, Australia Correspondence: Professor Neale FONG (<u>nfong@bethesda.org.au</u>)

### Abstract

What will ensure our health ecosystems are functioning at optimal levels into an uncertain and complex future? Sustainability is the current "buzz-word" and covers many areas of endeavour, but it is the managers and leaders, and their multilayered competencies, who will most directly impact sustainable health organisations. Prof Fong will explore the role of leadership (and leaders), in the progress and development for sustainable health care systems and the need for continual investment in learning, education and career support.

# Keynote III: Redefining Healthcare Sustainability: Adapting to Aging Populations and Shifting Care Needs

### Professor Tonomori HASEGAWA

*Professor, Toho University School of Medicine, Japan* <u>Correspondence</u>: Professor Tonomori HASEGAWA (<u>tommie@med.toho-u.ac.jp</u>)

### Abstract

The discussion on the sustainability of conventional healthcare systems has traditionally focused on predicting the increase in resources needed to accommodate the growing elderly population and minimizing the cost increase per unit demand through efficiency. Recently, there has been a shift towards advocating for reallocating more resources from acute care to chronic care and caregiving, considering the higher proportion of medical needs and caregiving requirements among the elderly. This shift is drawing attention as a fundamental discussion on healthcare resource allocation. To make future discussions on healthcare systems more constructive, two points should be noted. Firstly, while it was previously assumed that the necessary resources would increase but remain quantitatively available, the declining birth rates experienced in East Asia post-COVID-19 indicate that securing resources, especially human resources, is now difficult. It is necessary to reorganize healthcare systems based on at least the assumption of the human resources available in the future. Secondly, in healthcare service delivery, the emphasis is shifting from inpatient care at acute care hospitals to outpatient care and home-based care to accommodate the elderly. However, many of the quality and safety methods in traditional medicine are based on knowledge gained from acute care, and it is not yet clear if they are effective in outpatient and home-based care. There is a need to examine the quality and safety of healthcare, focusing on outpatient and home-based care.

### Keynote IV: Political Economy of Health

### **Professor Gordon LIU**

*Peking University BOYA Distinguished Professor of Economics, China* <u>Correspondence</u>: Professor Gordon LIU (<u>gordonliu@nsd.pku.edu.cn</u>)

### Abstract

From a perspective of political economy, Dr. Liu will address several hotly debated healthcare issues facing China and around the world. These issues include healthcare inflation, healthcare

as public goods, healthcare priority setting, pricelessness of life, and planetary health.

### Keynote V: Preparing National Health Systems to Cope with the Impending Super Ageing and Its Associated Complexities in Korea: Towards a More Sustainable Health System

### **Professor Dongwoon HAN**

Professor, College of Medicine, Hanyang University, South Korea Correspondence: Professor Dongwoon HAN (dongwoonhan@gmail.com)

### Abstract

As Korea's population ages rapidly, the imperative to reevaluate and fortify the national health system becomes increasingly urgent. This brief presentation offers an overview of strategies and initiatives aimed at preparing the Korean healthcare system for the impending wave of ageing and its associated complexities. Key areas of focus include enhancing healthcare infrastructure, bolstering workforce capacity, refining financing mechanisms, and integrating technology and innovation. Furthermore, the importance of fostering collaboration among stakeholders and implementing community-based approaches is emphasized to ensure the sustainability and resilience of the healthcare system in Korea. By proactively implementing these measures and embracing a holistic approach, Korea can move towards a more sustainable healthcare system capable of meeting the evolving needs of its ageing population.

### Keynote VI: Preparing the Health Workforce for Health in the Age of Digital and AI

### **Dr Louise SCHAPER**

Director, Comperio Pty Ltd and Former CEO, Australian Institute of Digital Health, Australia Correspondence: Dr Louise SCHAPER (louise@comperio.com.au)

### Abstract

As we stand on the brink of a new era in healthcare, driven by the rapid advancements in digital technologies and artificial intelligence, the role of the health workforce is poised for a profound transformation. This presentation will explore how we need to prepare health professionals for the challenges and opportunities presented by these innovations.

We will delve into the core competencies required for a future-ready health workforce, including digital literacy, data analytics, and the ethical implications of AI in healthcare. Moreover, we will discuss the importance of fostering a culture of continuous learning and adaptability within healthcare organisations to support people and organisations to navigate through a world where constant technological change, at pace, is becoming the norm. The presentation will also address potential barriers to this transformation, such as resistance to change, the digital divide, and the need for robust policy frameworks to ensure equitable access and ethical use of AI.

Ultimately, this talk aims to provide a thought-provoking discussion for healthcare leaders, educators, and policymakers to equip the health workforce with the skills and knowledge necessary to thrive in an increasingly digital and AI-driven landscape. By preparing our health professionals today, we can ensure they are ready to deliver better, more efficient, and more personalised care tomorrow.

# Keynote VII: Designing Innovative Health Management Programmes for Sustainable Healthcare Systems

### **Dr Jalal MOHAMMED**

*Senior Lecturer, University of Canterbury, New Zealand; SHAPE Executive* <u>Correspondence</u>: Dr Jalal MOHAMMED (jalal.mohammed@canterbury.ac.nz)

### Abstract

There are increased calls for health management education to respond to the changing context and needs of healthcare. Not only does this entail shifts in content, but it also requires a broader consideration of how programmes are designed and delivered to ensure learner engagement and experience.

This presentation will explore innovation in the design and delivery of health management programmes. Dr Mohammed will discuss the need to understand the learner and the changing needs of today's learners to ensure that programmes are designed to improve learner experience and engagement. He will also discuss the roles of communities, stakeholders, and partners in the design of innovative programmes. Dr Mohammed will conclude with a discussion on creating technology-enabled learning spaces using a framework and tool for action.

Keynote VIII: Evaluation of the Effect of Medical Consortium on Inpatient Services Utilization and Costs in Guangzhou City, Southern China—Analysis Based on a Difference-in-Difference Method

### 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)

### Abstract

Medical consortium, a typical model of integrated care in China, refers to a group of medical institutions or joint organizations formed by the integration of horizontal or vertical medical resources in different regions and types of medical institutions within a certain region. The purpose of establishing the medical consortium is to promote the sinking of high-quality medical resources, push forward the construction of hierarchical health system and two-way referral system, along with controlling the unreasonable increase in medical costs. Previous studies have found that the implementation of the medical consortium has achieved some

progress in promoting primary treatment and two-way referral, improving the effectiveness of chronic disease management and enhancing the sharing of medical technology and resources among hospitals in medical consortium. However, the net effect of the implementation of medical consortium on the inpatient services utilization and costs from the perspective of the medical institutions has not been fully evaluated.

The purpose of this study was to analyze the effect of medical consortium on the inpatient services utilization and costs from the perspective of the medical institutions. This study also compares the differences in the effect of medical consortium on tertiary hospitals and secondary and lower-level hospitals. Furthermore, this study delves into the effect of medical consortium on the inpatient services utilization and costs for patients aged 60 and above, as well as patients with chronic diseases.

# Keynote IX: Health System Resilience and Sustainability in India: Opportunities and Challenges

### **Professor Bhuputra PANDA**

*Professor & Director, School of Public Health, KIIT Deemed to be University, India* <u>Correspondence</u>: Professor Bhuputra PANDA (<u>directorksph@kiit.ac.in</u>)

### Abstract

Health systems exist for delivery of healthcare services. Twenty-first century is marked by increasing instances of extreme climate related disasters, outbreak of epidemics and emergence of pandemics, thus the significance of resilient and sustainable health systems has gained momentum. A resilient health system exhibits the capacity to prevent, respond to and recover from acute and chronic crises; on the other hand a sustainable system ensures uninterrupted provision of essential health services in an equitable, efficient and environmentally conscious manner. In India, the Union government and the state governments are continuously striving to address the health system related bottlenecks through a series of well-thought-out interventions. However, several challenges continue to act as barriers to these efforts. For instance, high mortalities, morbidities and infectious diseases have declined in the last decade, while noncommunicable diseases and life-style disorders have emerged as larger threats to the health system. The launching of AYUSHMAN BHARAT program by the Government of India is aimed at offering financial risk protection to a vast majority of the population while strengthening the health and wellness centres across the country that would focus on a basket of comprehensive primary care services inclusive of screening, identification, management and referral of cancer, cardiovascular diseases, hypertension, diabetes and mental health issues.

Over the last two decades, Odisha, an eastern Indian state with a population of 46 million has consistently dealt with several disasters, and has taken steps to build a more resilient and responsive healthcare systems. Being a disaster-prone state in India, Odisha has presented many success stories of dealing with cyclones and floods in the recent past. Use of technological advances in the domain of healthcare have fast transformed the ways and means of delivering healthcare services to India's diverse population. However, insufficient human

resources in health, limited financing opportunities, and erratic interdepartmental coordination continue to pose challenges.

In conclusion, the presentation offers key perspectives on the significance of establishing robust health systems capable of effectively navigating through the nuances of delivering healthcare to India's billion plus population.

## Keynote X: The Role of Primary Health Care in Sustaining the Health System During the Public Health Emergencies in Thailand

### **Dr Mathuros TIPAYAMONGKHOLGUL**

Associate Professor, ASEAN Institute for Health Development, Mahidol University, Thailand Correspondence: Dr Mathuros TIPAYAMONGKHOLGUL (<u>mathuros.tip@mahidol.ac.th</u>)

### Abstract

Primary Health Care (PHC) comprises four pillars; community participation, appropriate technology, support mechanism made available and intersectoral collaboration, plays a critical role in maintaining the resilience of health systems, during public health emergencies such as COVID-19. Amidst the public health challenges such as COVID-19, PHC serves as the frontline defense by providing essential healthcare services to the population. PHC facilities, including community-health workforces, health centers and community members, play a pivotal role in disease prevention, early detection, and management of COVID-19 cases. Through proactive surveillance, testing, and contact tracing, PHC helps to identify and isolate infected individuals, thereby mitigating the spread of the virus within communities. In conclusion, PHC plays a central role in sustaining the health system during the COVID-19 pandemic in Thailand. Strengthening PHC infrastructure, enhancing workforce capacity, and promoting community participation are essential strategies to ensure the resilience and effectiveness of PHC in pandemic preparedness and response.

## V. PARALLEL SESSIONS ON 8 JULY 2024

### **Parallel Session A: Competence, practices and research**

### A1. Building management capacity of hospitals – an integrative and co-design process

Zhanming LIANG<sup>1\*</sup>, Hui ZHANG<sup>2</sup>

<sup>1</sup> College of Public Health, Medical and Veterinary Sciences, James Cook University, Australia <sup>2</sup> School of Public Health, Sun Yat-sen University, China

\* <u>Corresponding author</u>: Associate Professor Zhanming LIANG (<u>zhanming.liang@jcu.edu.au</u>)

### Abstract

Hospital managers, in particularly those with dual managerial and clinical roles, are instrumental in the provision of consistent and high-quality patient care. International evidence has positively linked a supportive work environment and clear vision that empower staff to staff retention and job satisfaction. Globally, in both the developed and developing world in the past two decades, there has been increasing momentum and investment, at both system and organisation levels, in developing a competent health management workforce. However, despite the increasing efforts, health service managers often lack opportunities to develop their management capability prior to and after taking up the management roles. This directly affects their confidence in their managerial role and ability to lead both the organisation and team successfully. At the organisation level, developing managers' capability and filling management positions with competent managers are core parts of human resource management policies. Creating an environment that enable managers to apply management competencies in their management competen

Using a recently completed project aiming at building hospitals' management capacity as an example, the presentation will focus on describing and discussing

1) how the sequential mixed method study was implemented involving managers and clinicians of two District hospitals in China using Focus Group Discussions (FGDs) as a critical step to guide adapting a number of validated tools in the local hospital context, and

3) the types of data collected from the FDGs and online survey that provide comprehensive understandings of the current state of the hospitals.

3) the benefits and learnings from the implementation of an integrative and co-design approach in management capacity building, and

4) some results on the competency assessment on mid-level hospital managers, mid-level managers' demonstrated leadership behavior observed by non-management staff, difficulties commonly encountered by mid-level managers, and strategies for strengthening hospitals management capacity.

The presentation will also discuss how the use of a co-design approach broadly engaging relevant key stakeholders from the design and implementation of the project and formulation

of improvement strategies enable the project success and maximize and sustain the project impact.

Keywords: management capacity building, competency development, co-design

# A2. Nurse-driven genetic counselling in genomic healthcare: an integrative literature review

Alison Ka Kei CHU<sup>\*</sup>

School of Health Sciences, Saint Francis University, Hong Kong SAR

\* Correspondence: Alison Ka Kei CHU (achu@sfu.edu.hk)

### Abstract

**Background:** Genetic counselling has gained increasing importance in healthcare since the completion of the Human Genome Project in 2003. With the integration of genetics and genomics into healthcare, healthcare professionals, including nurses, must acquire knowledge and competency in genomic care. However, there is a shortage of certified genetic counsellors (CGCs), leading to nurses taking on the role of providing genetic counselling. Nurse-led genetic counselling services have shown positive outcomes and high patient satisfaction, but there are challenges in terms of nurses' genetic and genomic competence, lack of national recognition systems, and clinical guidelines. Bridging the knowledge gap and improving competency in genetics and genomics is crucial for nurses to provide effective genetic counselling services.

Aim: To explore the advantages and disadvantages of nurse-driven genetic counselling.

**Design:** An integrative literature review.

**Data Sources:** Publications from 2013 to 2023 were searched using computerized databases such as Cumulative Index to Nursing and Allied Health (CINHAL), MEDLINE, and PubMED.

**Procedures:** Abstracts of publications were reviewed according to the set of criteria of: (a) described nurse-driven genetic counselling services to clients, (b) target population includes nurses or nurse practitioners and/or midwives, (c) identified barriers or challenges in nurse-driven genetic counselling, (d) published between 2013 and 2023 and (e) published in English. Nine papers were included for synthesis. Methodological quality was evaluated by the Mixed Methods Assessment Tool (MMAT).

**Results:** All articles identified nurses demonstrate important roles and functions, with the majority considering genomics and genetics to be relevant to clinical practice. Family history and pedigrees are valued tools in genetic nursing, but defining nurses' roles in genetic counselling is complex, and some lack knowledge. Ethical concerns about genetic information privacy and discrimination highlight nurses' role as patient advocates. Also, nurses generally have low to average genetic knowledge and competence, lacking expertise for adequate care in clinical settings. Some nurses show inadequate knowledge of genetic concepts while those

with more patient consultations and working in cancer hospitals tend to have higher genetic knowledge, showing a correlation with professional status and pedigree usage. Studies emphasize the need for improved genetic and genomic education in nursing. Inconsistent and inadequate genetics and genetic counselling education is observed. Nurses express a desire for more genetics knowledge, especially in oncology, and prefer various learning methods. Professional organizations and national initiatives are recommended to support genetics and genomics education.

**Conclusion:** Genetics and genomics are shaping modern medicine, opening doors for the combined practice of clinical nursing and genetic counselling. Clear role identification, knowledge assessment, validated measurement tools, and educational support are vital for success. Further research is needed to address the challenges and advance nurse-driven genetic counselling services. Research should focus on developing psychometrics-based tools to evaluate knowledge, competencies, and attitudes across the full spectrum of genetic nursing skills.

Keywords: Nurse-driven genetic counselling, genetic counselling, genetic testing, genetics, nursing

### A3. Climate change and value-based health care

Chaojie LIU La Trobe University, Melbourne, Australia Correspondence : Chaojie LIU (<u>c.liu@latrobe.edu.au</u>)

### Abstract

Changing from evidence-based to value-based practices represents a fundamental paradigm shift in healthcare services. The value of healthcare services must be considered from the perspective of multiple tiers: individual, population, and system (Dyakova et al., 2024). This study aims to unveil the association between climate change and value-based healthcare.

Building a resilient and sustainable health system is essential for ensuring universal health coverage (UHC) that maximises the value of investment in health (Ranabhat et al., 2023). Healthcare services ought to minimise potential harms to patients and society at large while attempting to prevent and treat illness conditions. These harms include not only adverse events occurring to individual patients but also negative impacts on the population and environmental levels. The healthcare industry itself is a significant contributor to greenhouse gas emissions, the fundamental cause of global climate change. The total greenhouse gas emissions from the healthcare sector would amount to the fifth-largest emission source on the planet (Karliner et al., 2020).

Climate change affects health at both individual and population levels, both physically and mentally (Ebi & Hess, 2024). Its health impacts result from disruptions to a wide range of social

norms, encompassing environmental, social, economic, health, and technological domains (Jagals & Ebi, 2021). Many health workers have become highly aware of climate-sensitive health outcomes and have endeavored to prepare to deliver responsive services (Yang et al., 2018). However, a shortage of knowledge about climate change can jeopardise their capacity to address the underlying root causes of climate-sensitive illness conditions (Sorensen et al., 2023).

Developing a collective understanding of the science behind climate change is critical for health professionals to effectively interact and collaborate with others, including government, community, private, and academic sectors, in designing, monitoring, and evaluating efforts to address climate-related health challenges. Tools and products used every day in healthcare services are also vulnerable to climate-related disruptions in the manufacturing industry and supply chain (Unitaid, 2023). Health systems must undertake mitigation efforts to reduce emissions, adaptation measures to mitigate the health hazards of climate change, and resilience actions (Dresser et al., 2024).

The World Health Organization (WHO) has issued a series of technical reports, assisting member countries and healthcare facilities to conduct vulnerability and adaptation (V&A) assessments on the health impacts of climate change (WHO, 2019, 2022) and build climate-resilient and low-carbon health systems (WHO, 2015b, 2023). The WHO also recommends 17 training modules for professionals, including those in the health sector, focused on climate change and health (WHO, 2015a).

However, the lack of actions in health professional educations about climate change has jeopardised the capacity of health workforce to address climate-related health challenges (Sorensen et al., 2023). We call for urgent inclusion of climate-competency into health administration education programs.

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Keywords: Value-based Care, Climate Change, Health System

# A4. Sustainability of Hospital Accreditation Programs in Low- and Middle-Income Countries (LMICs): Lessons Learned from Sri Lanka

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### Abstract

**Introduction**: Hospital accreditation programs are designed to strengthen the quality and safety of hospitals and health systems. Accreditation is defined as a "self-assessment and external peer review process used by healthcare organizations to accurately assess their level of performance in relation to established standards and to implement ways to continuously improve the healthcare system" (1). Despite these programs being increasingly implemented in Low- and Middle-Income countries (LMICs), including Sri Lanka, many have been discontinued without producing clear benefits (2-5). This makes the sustainable implementation of hospital accreditation programs a global quality and safety priority.

**Methodology**: A qualitative, case study method (6-8) was used to elicit and analyse in-depth, first-hand information on factors that influenced the Sri Lankan hospital accreditation program in 2015. Despite the risk of recall bias, this was considered a sufficient period of time to enable participants to speak honestly about their experiences.

An interview guide was developed using: results from a scoping review; validation by relevant experts; and pilot-testing with independent Sri Lankan healthcare administrators. The main topics in the guide were antecedent influences, legislation and governance, establishment characteristics (sub-themes – standards, surveyors, incentives, survey management), survey implementation, program assessment, and contextual factors.

Document reviews and key informant interviews were conducted in April 2024. Interviews were conducted with 18 participants (Ministry of Health officials – 6; Hospital Administrators – 3; Assessors from Australian Centre for Healthcare Standards International (ACHSI) – 3; Sri Lankan assessors – 3; Other officers – 3). Transcripts were thematically analysed (9). Ethical clearance was obtained from the Human Research Ethics Committee of Queensland University of Technology, Australia (Ethics Approval Number 6951).

**Results**: A need to go beyond long-standing quality assurance programs, the enthusiasm of higher-level leaders, and the involvement of ACHSI in private hospital accreditation were the antecedent influences identified. Attempts to design national standards with representatives of professional colleges, academia and medical administrators were unsuccessful, and final implementation used ACHSI Standards. A combination of local surveyors, who were trained by ACHSI, and ACHSI surveyors, assessed six pilot hospitals.

The views of participants indicated that the program was not effectively sustained due to frequent changes in local leadership at the focal point of implementation, and financial constraints due to the discontinuation of donor funding. Later factors included the economic crisis in 2022 and COVID-19 pandemic. Other barriers identified were frequent changes in strategic plans, lack of awareness and competencies on accreditation among local stakeholders, no legislative backing, non-utilisation of incentives, and non-alignment of standards with the local working environment, augmented by resource and infrastructure constraints. Enablers commonly raised were the commitment of stakeholders, the availability of existing institutional structures for quality assurance, donor funding from the World Bank, and technical expertise and surveyor training by ACHSI.

Conclusion: This case study highlights the challenge associated with developing a sustainable

accreditation program in LMICs, where the local contexts (resources, commitment, capacity for implementation) may not always be well understood by global accreditation agencies and donor agencies.

Frequent changes in Sri Lankan leadership and strategies, financial constraints, non-alignment of standards to the local context, and lack of capacity to integrate the international accreditation system in terms of competencies, infrastructure, and resources, contributed to the ineffectiveness and poor sustainability of the Sri Lankan accreditation program.

The findings from this case study will highlight opportunities for accreditation stakeholders to refine the processes used to design and implement hospital accreditation programs in LMICs and, in this way, strengthen the quality and safety of healthcare, globally.

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# A5. Changes in attitude, knowledge, and behavior: A case study on interactions of young and older adults in Hong Kong

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### Abstract

Misunderstandings and conflicts among members of different age groups may interfere with intergenerational communication. The i-GESS program, an innovative intergenerational learning program in Hong Kong, was organized to enhance intergenerational and intercultural understanding between older adults and youths. This study investigated whether and how the attitudes, knowledge, and behaviors of older adults and young people who participated in i-GESS changed. It explored the potential of such intergenerational learning activities to promote the social participation of older adults and enable young people to gain knowledge about the aging population. It also sought to break down stereotypes and foster mutual respect and understanding across generations in this increasingly aging society.

This study adopted a qualitative semi-structured interview approach to delve into the feelings, experiences and details of older adults and the youth within the intergenerational learning program, analyzing changes in their attitudes, knowledge, and behaviors. Interviews were conducted individually with 28 older Chinese adults aged 60 and above, and 50 young participants aged 18 to 26 in a lifelong learning setting. The interviewees were selected using the purposive sampling method. Each 30-minute interview took place in a quiet environment, with all interactions recorded and transcribed verbatim upon obtaining participant consent. Thematic analysis was used to identify and categorize common themes reflecting the changes observed among the participants.

The results indicated a significant shift in attitudes, knowledge, and behaviors for both groups. Older participants reported changed perceptions of the youth, overcoming stereotypes such as perceived rudeness, disrespect, and excessive phone usage. They believed that their future interactions with young people would likely be easier and more comfortable. Conversely, youth participants gained a renewed perspective of older adults, recognizing their vitality, openmindedness, and their useful and rich experiences. The narratives of older adults regarding their professional lives before retirement and their social perspectives inspired the youth, providing an opportunity for them to better consider their future choices.

In conclusion, the intergenerational learning program served as a vital platform for fostering attitudinal change, knowledge enhancement, and behavioral shifts, effectively promoting mutual communication, understanding, and collaboration across age groups. Moreover, this study suggests that intergenerational learning programs can be an effective means of enhancing social participation among older adults and cultivating empathy among young people. These findings have significant implications for the development of policies and community initiatives aimed at facilitating intergenerational integration for both young and older populations.

Keywords: Hong Kong, intergenerational learning, older adults, youth

## **Parallel Session B: Digital health and innovation**

B1. Retinal vascular fingerprints predict incident stroke: findings from UK Biobank

### study

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### Abstract

**Background**: The retinal vessel network shares anatomical and physiological similarities with the brain, allowing for direct, non-invasive visualization of the vasculature. Our study aims to explore the relationships between a comprehensive set of retinal vascular parameters and the occurrence of stroke, with the goal of uncovering new associations and sensitive indicators to enhance stroke risk prediction.

**Methods**: Over 900 retinal vascular parameters were extracted from color fundus images from the UK Biobank using an artificial intelligence vascular analysis system. We used Cox regression analysis, adjusted for traditional stroke risk factors, to examine the associations between retinal parameters and stroke incidence, with a False Discovery Rate adjustment for multiple comparisons. Receiver Operating Characteristic Curves were used to assess their predictive values.

**Results**: During a median follow-up period of 13.1 years, we observed 749 stroke incidents. In the adjusted model, we identified 28 significant retinal vascular parameters, with more than half being Density parameters. For identified Calibre parameters, each standard deviation (SD) change was linked to a  $9.2\% \sim 13.7\%$  increased stroke risk. Each SD change in the identified Density parameters was associated with an 8.7-15.7% increased risk. For identified Complexity parameters and arterial Inflection Count Tortuosity, each SD decrease was linked to a  $9.1\% \sim 14.5\%$  increased stroke risk. Compared to the Area Under the Receiver Operating Characteristic Curve (AUC) achieved with traditional risk factors, the inclusion of retinal vascular parameters improved AUC from 0.738 to 0.760 (P<0.001). Even when only using age, sex, and retinal parameters, the AUC increased to 0.750 (P=0.011).

**Conclusions**: This study highlights the clinical importance of using retinal vascular parameters as a non-invasive screening tool for individuals at increased stroke risk. By identifying retinal indicators of stroke risk that are independent of traditional risk factors, this study provides new targets for stroke-related pathophysiological research.

Keywords: retinal vessel; stroke prediction; non-invasive imaging

## **B2.** Cybersecurity in Rural Healthcare Practices: An exploration to their systems' vulnerabilities

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#### Abstract

Presently, healthcare is a crucial sector in our society, which is prone to malicious actions and has seen a significant number of damaging attacks. Simultaneously, today's digital transformation and the latest progress in technology, computer systems, and wireless communications are complex in the healthcare sector. Security responsibilities in the healthcare business are notably extensive and new when compared to other sectors. This research aims to identify and evaluate the applications of cybersecurity in healthcare practices. Particularly focusing on Far North Queensland (FNQ) remote locations as the Australian Signals Directorate Cyber Threat Report for 2022-2023 reported some breaches and discussed that the already fragile infrastructure in rural and remote areas are more likely to be a place for malicious cyber activities (accessed online: (https://www.cyber.gov.au/about-us/reports-and-statistics/asd-cyber-threat-report-july-2022-june-2023).

The importance of this research is emphasised in two aspects: (1) The safety and confidence of patients. The significance of data access in the healthcare industry arises from several vulnerable points in the healthcare data management system, which may potentially lead to breaches in the medical data management infrastructure. For hackers, a patient's aggregated data might be seen as a valuable resource, offering them a comprehensive profile of a person, including residential location, health patterns, familial background, and financial information. (2) Healthcare providers sometimes collaborate with IT suppliers without first analysing the associated risk. In addition to human vulnerability, healthcare practices may unintentionally have the wrong architecture implemented (i.e. highly vulnerable systems in place). Insufficient knowledge, inadequate instruction, and the absence of a culture that prioritises security can exacerbate these susceptibilities. Healthcare organisations and practices possess vast quantities of valuable information; safeguarding the data's integrity and confidentiality is not only critical for the reputation of the organisation but also for the safety of patients and their trust. This research presents the preliminary finding of our initial literature review on the different categories of data intrusions that occur at different data breach locations. We identify cooccurring keywords in the descriptions of data intrusion incidents. From this, we will present the derive multi-level cluster of key themes used to convert these contextual information and themes into vulnerabilities, impacts, and mitigation strategies.

Keywords: healthcare practices, cybersecurity, healthcare data management

## **B3.** The sensitivity of wearable sensor on fall risk prediction for community-dwelling older people in Hong Kong: A prospective cohort study

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### Abstract

**Background/ objective**: The prospective cohort study aims to investigate the sensitivity of a wearable sensor – Booguu Aspire system, in evaluating fall risk among older people with history of falls.

**Methodology**: We have recruited 37 Hong Kong community-dwelling participants aged 60 years and above, They were stratified as being at 'moderate' or 'high' fall risk as rated using the Booguu sensor, further evaluated using physical function test including the Single Leg Stand Test (SLST), 6 Metre Walk Test (6MWT), and Five Times Sit to Stand Test (5STS), and were followed quarterly for 1 year using phone call on an intention-to-treat basis. Correlation and regression analyses were done to find out the relationship between sensor-based risk classifications, physical performance, and actual falls over a 12-month period.

**Results**: The comparative analysis of physical performance between older individuals classified as high-risk and moderate-risk for falls did not reveal any significant differences. The correlation between sensor-derived risk ratings and physical test outcomes was generally weak. In Model 1, the Single Leg Stance Test (SLST) showed a negligible negative correlation (r = -0.041, p = 0.811), the 6 Metre Walk Test (6MWT) had a slight negative correlation (r = -0.206, p = 0.222), and the 5 Times Sit to Stand Test (5STS) had a minimal negative correlation (r = -0.046, p = 0.787). Model 2 presented slightly varied correlations, with the SLST showing a weak negative correlation (r = -0.129, p = 0.567), the 6MWT displayed a moderate negative association (r = -0.354, p = 0.106), and the 5STS revealed an insignificant negative correlation (r = -0.008, p = 0.972). Discriminant functional analysis showed that the SLST, 6MWT, and 5STS correctly classified 51.4%, 64.9%, and 59.5% of fall risk levels, respectively. Separate evaluations were conducted to determine the sensitivity and specificity of the sensor's fall risk classifications, utilizing confusion matrix outcomes. This evaluation highlighted a remarkable sensitivity of 100%. However, the specificity was found to be 37.5%, and the overall prediction accuracy of the sensor in forecasting fall risks was determined to be 45.95%.

**Conclusion**: The wearable sensor shows potential for detecting actual falls among older adults at moderate-to-high risk over a 12-month period. However, its current limitations in specificity and correlation with fall incidents underline the need for further enhancements in its predictive accuracy

Keywords: Wearable sensor technology, Fall risk assessment, Elderly care

## **Parallel Session C: Social determinants of health**

C1. The Road Home - building the evidence base for a service delivery model that integrates housing, mental health, medical and legal services

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### Abstract

Road Home (RH) is a partnership between a community mental health, medical and AOD service (First Step) and a major housing and homelessness service provider (Launch Housing) in Victoria Australia. At its core is a strong and engaged multidisciplinary team that delivers mental health, medical, legal, and housing services to people in crisis and transitional accommodation, where they are, and when they need it the most. The pilot to establish the program, assess impact and outcomes and understand how and why it works is in its third year.

RH seeks to provide an integrated, timely, and tailored response to clients who are experiencing homelessness and significant housing stress. This is in stark contrast to the conventional and single discipline, siloed outreach and in-reach approaches that characterise service delivery in the community sector and very often result in poor outcomes. In this way the model represents an innovative design in the housing and homelessness space that addresses some of the key social determinants of health. When these are addressed together, outcomes for vulnerable clients and staff working with those clients are significantly improved.

The program is being formally evaluated by evaluators external to the services (LDC Group) using a developmental evaluation methodology and an action learning program/evaluation design. The author/presenter is one of those evaluators. It is informed by their academic and research background in collaboration with the professionals from each of the services involved bringing multiple perspectives to bear on the task.

The presentation will discuss key learnings including some of what it takes to do this well, the benefits to clients, staff and participating organisations and pitfalls and challenges, It will show how research knowledge and skills can be applied in a practitioner context and what is needed to do this effectively. Understanding the latter is important if industry collaborations and innovations that bring theory to practice and practice to theory are to be successful.

Keywords: Developmental Evaluation, Reflective Practice, Bringing Evidence to Practice, Multidisciplinary team innovation

## **C2.** Role of social determinants of health in reproductive cancer care among women: A cross-sectional survey from diverse demographic and regional settings in India

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### Abstract

Access to reproductive cancer care in India is significantly affected by social determinants of health. Reproductive cancers, including cervical, ovarian, and uterine cancers, constitute a significant health challenge for women in India. This cross-sectional survey aims to comprehensively assess the landscape of reproductive cancer care among women in India, exploring access, awareness, and barriers to timely diagnosis and treatment. The study highlights challenges in delivering care for reproductive cancers among women in India.

A cross-sectional survey design was adopted, involving a representative sample of women from four diverse geographical regions, urban and rural settings, and varying socioeconomic backgrounds. Structured interviews were conducted, and questionnaires were utilised to collect data on participants' awareness of reproductive cancers, utilisation of healthcare facilities, and experiences related to access to cancer care. The study adopted a convenient sampling approach and captured data from 509 women diagnosed with reproductive cancer. The collected data were analysed using the SPSS 25 version. Univariate, Bivariate and Multivariate analysis was presented in the study findings.

The study findings revealed multifaceted implications of reproductive cancers on women's health. The survey identified one-fourth of the respondents having ovarian cancer, and 23.4% were diagnosed with cervix cancer. One-third of the study respondents were diagnosed with breast cancer, and 18% had other reproductive system cancer. Preliminary findings reveal varying levels of awareness regarding reproductive cancer care, with regional disparities influencing the adoption of preventive measures such as vaccinations for cervical cancer and mammography for breast cancer. The survey also assesses the prevalence of risk factors contributing to the incidence of reproductive cancers. Socioeconomic status, education level, rural-urban settings, and cultural beliefs influence the healthcare-seeking behaviour of the study participants. Insufficient knowledge, stigma of reproductive health problems, and lack of family income frequently discourage women from obtaining timely medical treatment.

To tackle these social determinants, the survey results contribute to implementing comprehensive efforts such as educational campaigns, enhancing healthcare accessibility, and addressing socioeconomic disparities in order to ensure fair and equal access to reproductive cancer care in India.

Keywords: Reproductive Cancer, Divers Demographic, Social Determinants and Regional Settings

### C3. A Study on the Association between Poverty, Demographics, Family Support, and

### Cancer Care in Jharkhand, India

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### Abstract

**Objective**: The complex relationship between cancer care and poverty was examined in this paper. The study identified the association of various demographic factors with cancer care. The study also analyses the family's role and the support network in cancer care.

**Methodology**: The study employed a mixed-method approach to comprehensively understand cancer care in Jharkhand, India. The study was conducted as a cross-sectional survey with 204 reproductive cancer patients. A structured interview schedule covered the Socio-demographic variables and cancer care facilities. The study also used case study methods with three eligible adults undergoing or currently undergoing cancer treatment. Descriptive statistics were used to summarise the study findings. The narratives of each case study construct a comprehensive understanding of each patient's journey with cancer care. The study has received ethical approval from the Institutional Review Board (IRB) and the cancer hospital.

**Results**: The survey results show that 47 percent of the respondents access treatment. Only 12.7 percent of respondents had taken the HPV vaccine, and 44.6 percent got physiotherapy during the treatment. Forty-four percent of respondents accessed counselling services from health services providers. Respondents' characteristics, such as age and gender, were strongly associated with access to counselling services. Education and family income were statistically associated with access to cancer care treatment. Only 7.4 percent of respondents arranged transport for treatment, and 11.8 percent arranged logistics and various treatment therapy for cancer care. Cancer patients from Jharkhand frequently face discrimination in receiving health care due to their economic condition. The case study perceived the differences in wealth, social class and family role in cancer care. As a result, cancer patients often feel hopeless and isolated, leading to depression and anxiety.

**Conclusion and Implication**: Poverty plays a negative role in providing and accessing cancer care in the state of Jharkhand. The role of family and society is essential for a cancer survivor. Psychological support from the family gives hope to life of the cancer patients. In addressing the complex relationship between financial burden and cancer care, both government agencies and the social structures must implement comprehensive strategies.

Keywords: Cancer care, poverty, demography, family support, Jharkhand, India

## **Parallel Session D: Health management curriculum**

## **D1.** Building graduate capabilities of students in Health Administration course through a skills development approach to assessments

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### Abstract

The embedding of generic or employability skills in the curriculum is of increasing interest across the university sector. Recent developments show renewed efforts to embed graduate attributes or employability skills that are fit for global work context. Universities are now incorporating the United Nations (UN) Sustainable Development Goals (SDGs) in Curriculum in line with the 2030 Agenda for Sustainable Development adopted by all UN Member States in 2015. <u>Curtin's Strategic Plan</u> 2017-2022, and the 2022-2023 Plan on a Page Strategic Priorities, aim to strengthen its profile as a university engaged with sustainable development. Schools are encouraged to map and align activities across learning and student experience, research, innovation, engagement, and impact to the UN SDGs (Curtin 2030 Strategic Plan). The demand to align curriculum design with SDGs is in addition to expectation to meet quality improvement and accreditation requirements from high education and professional regulatory bodies. These internal and external influences on curriculum change and development hence require an explicit integration of graduate attributes and employability skills in curricula.

The rationale for this collaborative curriculum project is to enhance the graduate employability skills of students in health administration course through a skills development approach to assessments. Integral to this process is the proactive use of curriculum mapping as a quality management and enhancement tool to identify gaps and opportunities across the program to more closely align the governing frameworks to learning outcomes, assessments, disciplinary content, learning activities that aim to develop students' employability skills, rather than the use of curriculum alignment solely to satisfy the assurance of learning process and maintaining accreditation status (French et al., 2014).

### The aim and objectives of the project

The overall aim is to constructively align teaching, learning and assessment practices to enhance the graduate capabilities of students in health administration course. The project will follow a 360-degree evidence-based approach for curriculum enhancement using action and implementation research method. The project action activities will involve.

- 1. Determining (distilling and aligning) capabilities at the course level from governing frameworks: the Australian Qualifications Framework, Curtin's university Graduate Attributes, ACHSM health leadership and management competence framework and SDGs. These capabilities will then be mapped across the core units for health administration course exploring the extent to which they are reflected in unit -level learning outcomes and assessments.
- 2. Re-developing a curriculum map for health administration that shows development and assessment of capabilities.
- 3. Supporting students to achieve the capabilities through teaching and learning approaches

that promote student engagement and sill's development.

- 4. Evaluate achievement of capabilities through assessment feedback from self, peer and teacher.
- 5. Analyse assessment records, quality indicators and perceptions of graduate achievement of capabilities.

Implementation of this project will be in two phases. Phase one will be completed in December 2024 covering activities 1 and 2. Phase two will be complete in July 2025 covering action activities 3 to 5.

### **D2.** Organizational Learning in Healthcare Organizations

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#### Abstract

Organizational learning is defined as what the organization learns from the lesson of a crisis. The organization learning is the last stage of the crisis management model which has four stages: crisis prevention, crisis preparation, crisis response, and crisis recovery. Organizational learning is an important part of crisis recovery. Usually, people focus on the organizational continuing plan, which is a pragmatic consideration. The learning process is sometimes ignored because it takes a longer time for the employees in organization to learn from mistakes. The purpose of this study is to propose a framework for organizational learning so that people know the assessment of levels of learning outcome in healthcare organizations.

Formal reports after the crisis usually demand some changes in organizations. Organizational learning can occur at a deeper level. One can challenge the basic values and assumptions of the organization. In those cases, organization may alter the policy and principles in their operation. It is hard for external stakeholders or even a watchdog to know the learning level. It would be good if there is an indicator to assess the learning outcomes.

The indicator of failure learning outcome is whether the healthcare organization made the same mistake again. Although the organization changes its procedure guidelines after a crisis, the same mistake occurs again. It might be attributed to the implementation problem of the new policy. The second indicator is whether the organization devised some changes provided that no mistakes occur in a reasonable period after a crisis. Thus, a mid-range outcome is achieved given that some learning within the organization occurs. Finally, a fundamental change in policy or culture of the organization could be regarded as a full level of learning. The change has been implemented fully. Thus, the organization becomes more resilient to crisis. Examples from a residential care home for the elderly in Hong Kong was used.

Learning from mistakes is essential for healthcare professionals' development. Healthcare organizations need to have good organizational memory and knowledge management. Recording and storing the crisis knowledge is important and we can easily retrieve the information for our training use. There are project management; data management; accounting, organizational behavior, marketing, social responsibility, quality management, and ethics courses in the existing curriculum of the health management programme. Crisis management and organization learning can be considered as one of the new courses in the future.

Keywords: Learning outcomes; organizational learning; crisis management; level of learning;

health management curriculum

## **D3.** Effectiveness of a cardiopulmonary resuscitation curriculum for self-efficacy improvement among high school students in Thailand

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#### Abstract

**Introduction**: Resuscitation by bystanders with self-efficacy may increase twice the chance of survival of people with cardiac arrest compared to cardiopulmonary resuscitation (CPR) by people without self-efficacy. Training high school students in CPR to improve their self-efficacy is of interest because they have both physical and emotional abilities to do CPR.

Methods: This research was a quasi-experimental study, with two groups measuring results before and after the intervention. The objective was to study the effectiveness of the CPR curriculum for self-efficacy improvement (CPRCurSE) among high school students in a northeast province in Thailand. The participants comprised 93 high school students from two schools, with 36 students in the intervention and 57 students in the control groups, matched for age, gender, and study program (science-math). The intervention group underwent the CPRCurSE for eight main sessions (based on the self-efficacy theory): (1) education with a CPR manual (Vicarious Experience), (2) E-book (Vicarious Experience), (3) video clips (Vicarious Experience), (4) interactive lectures (Vicarious Experience), (5) demonstrations (Vicarious Experience), (6) virtual simulation for skill practice (Emotional Arousal and enactive mastery experience), (7) practice in pairs and take turns using an automated external defibrillator (AED) (Enactive Mastery Experience and Verbal persuasion) and (8) create a short CPR video clip (Enactive Mastery Experience and Verbal persuasion). Each session used 60-90 minutes. Whist, the participants in the control group received regular curriculum from their schools. The study was carried out during November and December 2023. Data were collected using a questionnaire about general information, and self-efficacy among the participants in the intervention and control groups. The data analysis employed descriptive statistics to characterize participant characteristics, and inferential statistics to compare the score of selfefficacy before and after the intervention, between the groups using independent sample t-test, and within the groups using paired sample t-test. A significant level was set at 95%.

**Results**: Before the intervention conducted, there was no difference in general information and mean self-efficacy score between the intervention and control groups. After the intervention, the participants in the intervention group had a higher mean score of self-efficacy than those in the control group.

Conclusion: The research suggests that CPR curriculum for high school students (CPRCurSE)

is of interest to enhance self-efficacy among the students to assist cardiac arrest as bystanders and should be implemented in schools.

Keywords: cardiopulmonary resuscitation, self-efficacy, high school student

### D4. Effectiveness of a Health Education Program Applying Knowledge Attitude and Practice Concept on the Pregnancy Prevention among Female High School Students in a Northeast Province in Thailand

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### Abstract

**Background**: Teenage pregnancy is related to the targets in the Sustainable Development Goals (SDGs). It is also remaining a public health concern worldwide because of its mortality rate and adverse pregnancy outcomes. In Thailand, the pregnancy rate is about 28 per 1000 women aged 15-19 years. In addition, more than 10% of pregnant women are aged under 20 years annually.

**Aim**: This study was a quasi-experimental research in order to study effectiveness of a pregnancy prevention program in female high school students in sub-districts in one northeast province in Thailand, where the province is closed to the Mekong river and the Thai-Laos friendship bridge.

**Method**: The sample group consisted of 41 female high school students in the intervention group selected from one sub-district, while there were 36 female high school students in the control group selected from another sub-district away about 40 kms from the first sub-district. The participants in the intervention group received a program based on knowledge, attitude, and practice, whereas those in the control group received regular curriculum from their schools. The program expanded for four weeks. Data were collected before and after the intervention program using a questionnaire constructed based on knowledge, attitude, and practice concept. Data were analyzed by descriptive statistics, such as frequency, percentage, mean and standard deviation. The inferential statistics used mean scores to test the research hypothesis: within groups using paired samples t – test; and between groups using independent samples t - test.

**Results**: Before the program, there was no significant difference for knowledge, attitude and practice for pregnancy prevention among participants in the intervention and control groups. After participating in the program, the participants in the intervention group had higher score of decision for pregnancy prevention and behaviors pregnancy prevention in comparison to those in the control group (p-value<0.001). In addition, the participants in the intervention group had higher score of knowledge of pregnancy prevention (p-value<0.001), attitudes towards pregnancy prevention (p-value<0.05) and behaviors of pregnancy prevention (p-value<0.05) compared to those in the control group.

**Conclusion**: The pregnancy prevention program in high school female students is effective and might be implemented nationwide. The program is suggested to be used for pregnancy prevention among students in another level, such as in a secondary school. Keywords: Teenage pregnancy, intervention program, prevention, health education

## **Parallel Session E: Primary healthcare**

#### E1. Revisiting the determinants of health in Post-COVID era

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### Abstract

Resurgence of communicable diseases is inevitable. Billions of dollars will be needed to invest on drug discovery of vaccine and treatment to combat for one pandemic needless tosay the repercussion on economies and livelihood of people. Should we revisit strategies for primary prevention? The researchers have constructed the Artificial intelligence algorithms to represent the socioecology of Kwai Tsing (K&T) and Sham Shui Po's (SSP) residents and multi-source data analyses and have identified profiles for potential primary, secondary and tertiary prevention targets of the studied populations in terms of the residents' external and internal built environment, trajectories of disease development, and their psychosocial and medical statuses. Built environment features were found to be assigned greater statistical importance to general health compared to features associated with one's socio-demographics, health, and health-related behaviours and service utilization and were also found to link to COVID-19 case count. The built environment putting residents at risk for poor general health also put them at risk for COVID-19. Features representing internal built environment of working poor, such as the size of the living space, air quality, access to light, architectural design conducive for social connection, and age of the building, were found to assign greater statistical importance than other more commonly examined predisposing factors for pain interference such as age, occupation, the severity and locations of pain, BMI, serum blood sugar, and blood pressure. Detail social history of residents would be obtained in primary healthcare setting such as GPs and DHCs to identify those patients with high living environmental risks to assess their general health for effective prevention. Although it is not possible to modify housing conditions within short period of time, one can consider moblising community resources such as "Care Team", "Community Living Room" to mitigate the impact of adverse living conditions, and also mitigate the potentially high acute medical care needs and COVID-19 infection risk predisposed by specific architectural elements and sociodemographic profiles of public housing.

## E2. Avoidance of medicine wastage in private clinics in Hong Kong: Practitioners' perspectives

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#### Abstract

Hong Kong with its well-established healthcare and medicine system and professional health services is one of the renowned healthiest places in the world. In fact, Hong Kong's healthcare system is running on a dual-track basis comprising public and private sectors (Kong et al., 2005). The public sector is managed by the Hospital Authority while the private sector is managed by the private practitioners. Although these two sectors are adopting different operation modes, the ultimate goal of the healthcare system is to safeguard local population health and quality of life (Hospital Authority, 2021).

This study intends to explore medicine waste management and sustainability. First, we examine the existing phenomenon of Hong Kong medicine waste. Also, we discuss the causes of medical waste from a private clinic doctors' perspective. In addition, we identifies possible policies and recommendations to minimize the medicine wastage in private clinic in Hong Kong as well as improve the healthcare supply chain practices.

In the study, qualitative research with in-depth interviews of doctors and medical practitioners have been carried out to gather their views and opinion of medication wastage, including the current medicine waste situation and the means of handling the expired medicines. Also, the study analyzes the centralized procurement platform effectiveness and suggests some possible policies for government to adopt. Interviewees mentioned that medication waste has occurred over decades. Medicine wastages are not only financial burdens, but also social burdens. If the medication waste problem cannot be alleviated, it will affect the population health and environment in the long run.

An all-rounded healthcare supply chain with efficient logistics operations would help the government to collect excess medicines from private clinics and redistribute to some NGOs. In fact, all parties including manufacturers, distributors, prescribers, and patients have the responsibilities to maintain and implement suitable policies to prevent bulk medicine waste. The government, the Hong Kong Hospital Authority (HKHA) and professional medical bodies should educate and set up effective policies like medicine recycle programs for stakeholders to work together to minimize medicine waste problem, achieving sustainable healthcare system as well as medication supply chain. This research study provides the foundation of medicine wastage in private clinics in Hong Kong. Future research can investigate the medicine wastage in other aspects as well as consolidate the literatures in both industrial and public perspectives.

Keywords: Medicine wastage, healthcare, supply chain, Hong Kong

# E3. Factors associated with quality of life among stroke and non-stroke people in an agricultural province in Thailand: A case-control study

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### Abstract

**Background**: Worldwide, stroke is the second largest cause of death and is related to the disability-adjusted life-years. In Asia, stroke burden is expected to increase, the incidence of stroke varied between 116 and 483/100,000 per year, whilst its prevalence varies among ASEAN (Association of Southeast Asian Nations) countries. In Thailand, stroke is about 80% ischemic stroke and 20% haemorrhagic stroke. Stroke survivors may leave one with a chronic or disabling outcomes, and result in low quality of life. Aim: This study aimed to investigate the factors associated with quality of life among stroke and non-stroke people in an agricultural province (northeast province) in Thailand.

**Methods**: This case-control study (a ratio of 1:4) was conducted among 154 newly stroke people and 554 non-stroke people as controls recruited from a community similar to the stroke people lived. Gender, age group and community were matched for the cases and controls. Data were collected between February to August 2022 using a self-reported questionnaire of the World Health Organization Quality of Life (WHOQOL-BREF), socio-demographic characteristics and lifestyle habits. Data were analysed using descriptive statistics and multivariable logistic regression models, adjusted Odds Ratio (aOR) and 95% confidence interval (CI) were presented.

**Results**: Most of the participants were female (64.1%), whereas mean age of the participants was 59.24 ( $\pm$ 9.52) years. The majority were Buddhist (94.9%), married (74.6%), had a primary school education or less (75.1%) and were agriculturists (71.8%). Factors associated with low-medium quality of life were: having a larger waist circumference (aOR=1.619, 95%CI (1.003–2.612)), and being a farmer (aOR=2.976, 95%CI (1.143-7.750)). Being a current smoker and a male were a protective factors (aOR=0.381, 95%CI (0.191-0.757)) and aOR=0.564, 95%CI (0.323-0.985)) respectively.

**Conclusion**: Waist circumference, occupation, smoking habit and gender are associated with low-medium quality of life. The modifiable factors need to have a prevention program in order to increase quality of life among stroke people, such as a food reduction program in a community for primary prevention. In addition, people who are population-at-risk are in need of regular screening for the quality of life. Primary care providers may be main responsible persons to improve quality of life among stroke people as they are in communities and closer to the stroke people and the physicians in hospitals.

Keywords: Community, primary prevention, case-control study, epidemiology

## **Parallel Session F: Population ageing**

### F1. Sustainable Solutions for Aging Societies: Nurturing Resilient Communities

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### Abstract

As the global population ages, societies worldwide are facing unprecedented challenges in providing sustainable solutions to support their elderly populations. This abstract explores key strategies for addressing these challenges through the lens of sustainable development, emphasizing the importance of fostering resilient communities that promote social inclusion, healthcare accessibility, and intergenerational solidarity.

One of the fundamental pillars of sustainable solutions for aging societies is the promotion of active and healthy aging. This entails implementing policies and programs that encourage older adults to maintain their physical, mental, and social well-being. Investing in preventive healthcare measures, such as regular health screenings and access to affordable fitness and wellness programs, can significantly enhance the quality of life for seniors and reduce the burden on healthcare systems.

Furthermore, fostering social inclusion is essential for combating the isolation and loneliness often experienced by older adults. Community-based initiatives, such as senior centers, neighborhood support networks, and intergenerational activities, play a crucial role in providing opportunities for meaningful social engagement and connection. By creating age-friendly environments that value the contributions of older adults, societies can empower seniors to remain active participants in their communities. Designing inclusive and accessible public spaces, transportation systems, and housing options can create age-friendly environments that support the independence and social participation of older adults.

Intergenerational solidarity is another key component of sustainable solutions for aging societies. Encouraging interactions and collaboration between different age groups fosters mutual understanding, empathy, and support. Intergenerational programs, such as mentorship initiatives, volunteer opportunities, and shared learning experiences, not only benefit older adults by providing companionship and assistance but also enrich the lives of younger generations by imparting wisdom and life experiences.

Moreover, ensuring equitable access to healthcare services is paramount for addressing the diverse needs of aging populations. This includes improving healthcare infrastructure, expanding coverage for geriatric care, and promoting age-sensitive healthcare practices. Additionally, integrating technology into healthcare delivery systems can enhance efficiency and accessibility, particularly for remote and underserved communities.

In conclusion, sustainable solutions for aging societies will require a multifaceted, collaborative approach. Governments, healthcare systems, businesses, and individuals must work together to adapt and prepare for the demographic shifts ahead. While the path forward may not be easy, embracing innovation, technology, and new ways of thinking can help us

build resilient, age-friendly societies that support the well-being of all citizens, both young and old.

Keywords: Aging societies, Sustainable development, Resilience, Social inclusion, Healthcare, Intergenerational solidarity

## F2. Adding Life to Years: Comprehensive End-of-Life Care for All

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### Abstract

**Background**: End-of-life care (EoLC) plays a pivotal role in respecting an individual's desire for a peaceful death. It encompasses a comprehensive approach to address medical, social, emotional, and spiritual needs in the final 6 to 12 months of people's life. Building upon the insights from our 2019 EoLC study titled Fostering Medical-Social Collaboration in Achieving Quality End-of-Life Care, which offers an in-depth analysis of EoLC in Hong Kong, this report seeks to reconceptualize and enhance our comprehensive assessment of the EoLC landscape in Hong Kong.

**Methodology**: Employing a mixed-methods approach, this study synthesises international evidence-based policies, stakeholder insights, and analyses of local community resources, aiming to craft a robust EoLC strategy that is attuned to the needs of an ageing society.

**Findings**: The study revealed that EoLC not only benefits individuals, including patients, carers, and families, but also has a positive impact on the healthcare system. The context of population ageing intensifies the need for sustained improvements in EoLC provisions.

Our investigation identified several critical gaps in the system, service provision, and education. While Hong Kong's Advance Decision on Life-sustaining Treatment Bill is commendable in promoting EoLC, this bill alone may not be sufficient to address the full range of care needs. Discussions on EoLC should not be limited to the last 6 to 12 months of one's life but should be a topic that can be discussed by citizens of all ages.

The insufficient medical-social collaboration complicates the navigation of community service systems for patients and carers. Often, it necessitates consulting multiple service providers independently, which can create a high threshold for accessing suitable services. Services should also be expanded beyond medical care to encompass the medical, social, emotional, and spiritual needs of citizens in their final stage of life, ensuring holistic care.

**Implications**: Acknowledging the demographic shifts and consequent healthcare challenges an ageing population poses, our study accentuates the urgent need for augmented support and strategic enhancements within Hong Kong's EoLC ecosystem. We propose six policy recommendations which span across the system, service, and education sectors, encapsulated

by our strategic outline "One Framework, Two Sectors and Three Strategies". These recommendations are designed to advance the development of a person-centred, dignified, and coordinated EoLC in Hong Kong equipped for an ageing demographic.

**Conclusion**: This paper asserts the significant role of strategic policy and community-based support in reinforcing EoLC, ensuring it aligns with the needs and expectations of an ageing population. Such initiatives are intended not merely to enrich life quality in later stages but also to significantly reduce the healthcare system's burden. As Hong Kong's population ages, these policies provide clear, evidence-backed directions to foster a compassionate, effective, and holistic EoLC system, ensuring it is a cornerstone of healthcare strategy moving forward. Keywords: End-of-life care, Holistic care, Primary healthcare

## F3. Vision care as a strategy to prevent fall among people with moderate to severe level intellectual disability in hostel setting in Hong Kong

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### Abstract

**Background**: Previous evidence suggested that fall risk increased when people with intellectual disability (ID) grew older. Factors contributing to their higher fall risk are complex due to their discrete patterns of multimorbidity among this population. Especially for those with moderate to severe level ID, there is also a lack of data investigating the relationship between their multimorbidity and fall risk. This study aimed at filling this knowledge gap by investigating this issue in a local hostel setting.

**Method**: This study was conducted in the four hostels under Haven of Hope Christian service, which serve people with moderate to severe level ID. Health data is collected every year to regularly monitor the health status of residents, and the latest data collected in the year of 2022-23 was used in this research. Data concerning fall risk, assessed by Morse Fall Scale, as well as other health condition (osteoporosis, osteoarthritis, cataract) and demographics (age and gender) among residents were included for analysis.

**Result**: The sample consisted of 199 residents (85 were males and 114 females), with an age range of 22-76 years old. 95 (47.7%) of them aged above 45 years old. Among the whole sample, cataract is a common condition and its prevalence reached 27.14%. Those who were 45 years old or older were 4.61 times (95%CI 2.09-11.07) more likely to have cataract than those younger residents. On the other hand, prevalence of osteoarthritis and osteoporosis were 5.03% and 4.02% respectively.

Using the presence of fall risk as the outcome, bivariate analysis results showed that fall risk was associated with older age (above 45 years old; OR 2.38; 95%CI 1.28-4.49), diagnosis of cataract (OR 3.3; 95%CI 1.71-6.33) and osteoarthritis (OR 12.68; 95%CI 1.70-564.75). Logistic regression analysis further illustrated that older age (p = 0.01) and cataract (p = 0.04) remained as significant predictors of the presence of fall risk after controlling for gender,

osteoarthritis and osteoporosis in the model. The whole model accounted for 18.44% of variance.

**Conclusion**: Our data showed that old age and presence of cataract were associated with higher fall risk among moderate to severe level ID in hostel setting. Given cataract is a prevalent condition especially among old age, early screening and detection, followed by timely intervention can be a vital strategy of fall prevention in a hostel setting. Further suggestions and limitations will be discussed in this presentation.

Keywords: fall prevention; intellectual disability; cataract; Hong Kong

# F4. Social Protection for Older People in Bangladesh: Strategies, Innovations, and Challenges

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### Abstract

Social protection programs are instrumental in securing the well-being and social security of the growing older people in Bangladesh. These programs serve as a safety net, protecting older people from falling into extreme poverty or deprivation, which typically involves the provision of cash transfers, subsidies, or in-kind benefits to eligible beneficiaries. This paper aims to analyse the strategies, innovations, and challenges associated with the implementation of the programs designed for older individuals. Considering the paramount importance of the programs, the paper delves into their contributions to addressing the growing needs and concerns of the aging population. By identifying strategies (e.g., targeting mechanisms, community-based enrollment, doorstep delivery, grievance mechanisms, etc.) and innovative approaches (e.g., biometric identification, mobile financial services, online application and verification, etc.) used in their implementation processes, it aims to promote the support offered to older adults and recommend the potential solutions for addressing their specific needs and vulnerabilities, including healthcare, long-term care, and social inclusion. It examines several types of social protection programs that target older adults, such as Old Age Allowance. This paper evaluates the impact of these programs on enhancing a minimum level of income, reducing poverty, and promoting access to essential services. Furthermore, the analysis explores new strategies and innovations that can be employed to strengthen and expand social safety net programs for older individuals in Bangladesh. It investigates policy reforms, targeted interventions, community engagement, and cross-sector collaborations as potential avenues for enhancing program redesign, delivery, and impact. While highlighting the positive aspects, the paper also acknowledges the challenges and limitations (e.g., mis-targeting, data mismanagement, limited financial resources, administrative incapacity, etc.) associated with implementing the programs for older individuals. The findings of this analysis provide valuable insights for policymakers, practitioners, and researchers seeking to enhance social security for older people in Bangladesh.

Keywords: Social protection, Older people, Bangladesh

### **Parallel Session G: Presentation + Feedback**

### G1. Socio-Cultural, Environmental Factors and Physical Activity among Older Adults in Hong Kong: Integration of GIS and Social Survey Research

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#### Abstract

Hong Kong's rapidly ageing population poses challenges, particularly for the health and wellbeing of older adults. Physical inactivity is a major concern as it can lead to many health problems. Regular physical activity is crucial for maintaining health, preventing chronic diseases, improving mental well-being and increasing social engagement among older adults. However, many older adults in Hong Kong do not engage in sufficient physical activity due to various barriers, such as physical limitations and environmental constraints. This study aims to investigate the potential of various environmental factors to promote physical activity among older adults in Hong Kong. Focusing on three regions (Hong Kong Island, Kowloon and New Territories), the research will examine how socio-cultural and environmental factors such as urban design, land slope, green spaces and support from family, friends and community influence the physical activity levels of older adults.

The study will adopt a mixed methods approach, combining quantitative surveys and the use of ArcGIS to examine socio-cultural and environmental factors on older adults' physical activity across the three regions of Hong Kong. A total of 300 participants aged 65 and over will be recruited, including 100 participants from each region. Purposive sampling will be used, and participants will be recruited from District Elderly Community Centres (DECCs) in Hong Kong Island, Kowloon, and New Territories. The quantitative survey will collect data on sociocultural factors, perceived environmental factors, and physical activity levels of older adults, both objectively and subjectively, in each region. Participants will be asked to record their daily physical activity and wear an accelerometer for four days to provide objective data on their physical activity levels. This data will be complemented by subjective assessments of physical activity engagement obtained through the survey. ArcGIS will be used to analyze and visualize the spatial distribution of environmental features that may influence physical activity among older adults, such as green spaces, recreational facilities, and transport networks. Comparisons of the three regions will be conducted to identify areas that could be improved to promote physical activity among older adults. By combining quantitative surveys, objective physical activity data, and geospatial analysis, this study aims to provide a comprehensive understanding of the relationship between socio-cultural and environmental factors and the physical activity levels of older adults in Hong Kong.

The findings are expected to facilitate the identification of the barriers and facilitating factors of physical activity among older adults in Hong Kong in promoting active ageing. The study contributes to the growing body of knowledge on age-friendly cities and the promotion of

physical activity among older adults. The recommendations from this study will inform policymakers, urban planners, and health professionals in their efforts to create more inclusive and supportive environments that enable older adults in Hong Kong to lead active and healthy lives.

Keywords: aging, physical activity, older adults, age-friendly, Hong Kong, socio-cultural factors, environmental factors

## **G2.** The design of Cinematic Virtual Reality Experiences (CVRE) to improve the wellbeing of young seniors in Singapore – a proposed study

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### Abstract

The aging population presents significant repercussions for the world, with the number of persons with dementia (PWD) projected to rise from 40.1 million in 2015 to 55.4 million in 2025. Notably, 5% of PWD experience early onset symptoms before age 65. In Singapore, over 100 cases of young-onset dementia (YOD) are diagnosed annually. Individuals with YOD face greater economic and societal burdens, and the progression of brain changes is more rapid, leading to a quicker decline in cognitive abilities. This cohort often struggles with managing behaviour and emotions, losing interest in usual activities and social interactions.

The topic of integrating VR technologies in healthcare has received significant interest in Singapore. However, many existing interventions remain largely focused on managing real-life scenarios targeted to care providers. Nevertheless, a small number of use cases have examined VR as a non-pharmacological intervention. While the three to four-minute experience has proven to keep PWD engaged and reduce their stress, several questions regarding the intensity and frequency of interventions, inclusion and exclusion criteria, equipment, CVRE content, and programming remain to be addressed. More research is required to examine how CVRE can reconcile with the identity PWD previously held and reduce the tendency toward social isolation.

To address these challenges, the study propose developing a Cinematic Virtual Reality Experiences (CVRE) design framework to guide future CVRE designs, and a CVRE prototype will be developed to corroborate its effectiveness. The CVRE framework seeks to include key themes and elements, such as barriers and limitations. The intended findings of this study aim to establish an early step in understanding technology-mediated interventions and offer valuable insights into ways to enhance the quality of life for both PWD and their caregivers. These insights have the potential to inform policy and practice in the healthcare and social services sectors, ultimately leading to better outcomes for PWD and their families. Keywords: Virtual Reality, Design, Well-being

## VI. PARALLEL SESSIONS ON 9 JULY 2024

## **Parallel Session A: Competence, practices and research**

## A1. Enhancing Sustainability in Healthcare Workforce through Coaching: The secret advantage!

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### Abstract

The sustainability of the healthcare workforce is a critical concern globally, with challenges including burnout, turnover, and the need for ongoing professional development. This poster explores how coaching can serve as a powerful tool to address these challenges, fostering resilience and growth among healthcare professionals. Drawing upon empirical research and theoretical frameworks, we present a compelling case for integrating coaching into healthcare settings to enhance the well-being and performance of practitioners.

Research indicates that healthcare professionals are susceptible to burnout due to high job demands, emotional labour, and inadequate support systems (West et al., 2016). Burnout not only impacts individual well-being but also contributes to decreased patient satisfaction and compromised quality of care (Panagioti et al., 2018). Coaching offers a proactive approach to mitigate burnout by providing professionals with personalised support to navigate stressors, build coping strategies, and foster work-life balance (Grant et al., 2019).

Moreover, coaching contributes to the professional development and career satisfaction of healthcare professionals, thereby promoting workforce retention (Cox et al., 2014). Through reflective practices, goal-setting, and skill-building, coaching facilitates continuous learning and growth, empowering individuals to thrive in their roles (Grant et al., 2019).

Central to coaching's effectiveness is its focus on enhancing self-awareness and emotional intelligence among healthcare professionals (Grant & Curtayne et al., 2019). By fostering a deeper understanding of one's strengths, values, and motivations, coaching enables practitioners to cultivate meaningful connections with patients, colleagues, and broader healthcare teams (Wolever et al., 2013). These interpersonal skills are foundational to collaborative practice and patient-centered care, essential elements of sustainable healthcare delivery (Reeves et al., 2016).

Coaching represents a promising strategy to enhance the sustainability of the healthcare workforce by addressing burnout, fostering professional development, and nurturing a culture of support and growth. By investing in coaching initiatives, healthcare organisations can empower their professionals to thrive amidst complexity, ultimately improving both the quality of care and the well-being of patients and providers alike.

Methodology:

This study was conducted using a sample of post graduate students from an Australian university.

The participants self-nominated and were recruited through an expression of interest process.

Five, 45-minute pro bono coaching sessions were offered over a five-week period during a trimester in 2023. A separate cohort were offered the same opportunity in 2024.

Results:

The results of the two cohorts were evaluated using qualitative feedback. Data from the study will be discussed and presented at the conference.

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Keywords: Workforce, Coaching, Resilience

# A2. National patient satisfaction survey as a predictor for quality of care and quality improvement - experience and practice

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### Abstract

**Introduction:** Patient satisfaction is a key indicator of quality of care and hospital services. It provides not only valuable insight into patient experience of care, but also evidence that guides quality improvement in both the system and organization levels. Multiple factors such as types of hospitals and patient-clinician interaction during care processes can influence patients' level of satisfaction. Hence, understanding patient satisfaction can guide strategy formulation that ultimately lead to better quality of care. The aim of this paper is to explore how system wide annual national patient satisfaction survey predict benefits of quality improvement initiatives and the state of quality of care in hospitals.

**Methods:** The study extracted data from annual National Public Hospital Patient Satisfaction Survey (NPHPSS) conducted in 148 public hospitals in Shangdong Province in China between 2019 and 2021. One-way ANOVA, Welch test, Pearson test and Spearman test were performed to clarify the differences in average satisfaction scores and relationship between variables. A univariate linear regression model was established to describe the impact of variables on satisfaction.

**Results:** The NPHPSS three-year data confirmed an improvement trend of patient satisfaction of hospital care amongst both outpatients and inpatients. The significant improvement in patients' satisfaction over the communication-related dimensions provides encouraging proof on improved patient-clinician interactions. The three-year survey data found a correlation between patient experience of care and different hospital categories (grade and level, supervisory level, economic state of location). The survey data also indicated that maturity of the health information management system (HIMS) of the hospitals had positive impact on inpatient satisfaction.

**Discussions:** The study proved the value of system-wide satisfaction survey of hospitals patient in the Chinese context in predicting benefits of quality improvement initiatives and the state of quality of care in hospitals. Carefully constructing patient satisfaction survey to tailor the needs at both the system and organization level is a worthwhile investment and service improvement strategies should be accustomed to local hospital context considering hospital / service types, geographic location and patient cohorts. It is important to invest in HIMS upgrades as one of the strategies in improving service quality and patient experience of care in public hospitals.

**Conclusion:** Considering the value of patient satisfaction on assessing quality of care, carefully constructing patient satisfaction survey to tailor the needs at both the system and organsiation level is a worthwhile investment. The study proves the value of HIMS in patient care improvement. Further research on how maturity of HIMS impacts on patient experience of care can guide the system level improvement of health information system upgrade and development.

Keywords: patient satisfaction; quality of care; healthcare information management system; clinician communication

## **Parallel Session B: Digital health and innovation**

### **B1. Improving Digital Health Competencies for Health Service Managers in Australia**

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### Abstract

**Introduction**: Globally, the healthcare system has experienced a long period of rapid and radical change. In response, innovative service models have been adopted for the efficient delivery of high-quality care, which requires a health workforce with the required skills to support and sustain such transformation, and new ways of working.

**Objective:** A research project has been completed that aimed to identify the competencies required for health service managers (HSMs) in managing and enabling digital transformation within the Australian healthcare environment, and organisational level strategies in contributing to the development of HSMs' competency and capability.

**Methods:** The study adopted a qualitative approach, guided by the empirically validated management competency identification process, employing three steps: (1) health management and digital health competency mapping; (2) scoping review of literatures and policy analysis; and (3) focus group discussions (FGD) with HSMs. The first two steps informed the design of the FGD.

**Results:** In total, 44 health managers and digital health specialist from all Australian States and Territories (except NT) shared their views and insights at 6 FGD conducted in early 2023. The FGD findings have illuminated the organisational factors driving the realisation of digital health transformation benefits from HSMs, and detail the capabilities HSMs require in enabling sustainable digital health transformation. With the digital health competencies required for HSMs identified, the study also provides a framework articulating how to develop these competencies, in-context.

**Practical implications**: This presentation will provide insights into the health service management workforce readiness and development needs for digital health, and inform credentialing and professional development requirements. This will guide HSMs in leading and managing the adoption and implementation of digital health, as a contemporary tool for sustainable healthcare delivery.

Keywords: Digital health, competency frameworks, health service management, workforce development, sustainable transformation, innovation capability

## **B2.** Comparing the Effects of Digital Expressive Arts Therapy on Youth and Older Adults with Mental Disabilities

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#### Abstract

Expressive arts therapy is a clinical intervention of the therapeutic process of arts, which differs

from arts activities of a non-clinical setting. Art therapists emphasize the interaction with their clients patients, as well as the cognitive progress observed in relation to beneficiaries' mental and behavioural state. That distinguishes from conventional arts teachers, who do not constitute a sufficient role on its own for the purpose of arts therapy based on the research report from Our Hong Kong Foundation. According to the Expressive Arts Therapy Association of Hong Kong, expressive arts therapy is an integrated, multimodal approach that helps people achieve personal growth by using a variety of techniques like writing, music, visual arts, drama, and dance. Due to the popularity of digital service after COVID-19 pandemic, digital arts therapy activity becomes universal and functions as a means of intervention through different expressive activities, such as artwork, dance and play. For instance, painting workshops would be conducted for artwork via digital tablets. Participants would be invited to paint on the digital tablets with their partner. The user interface of digital tablet serves as a 'blank page' of their lives, which they can paint to make more colourful. The five categories, including shape, composition, color, space and surface quality, would be examined through comparative content analysis based on art theories.

This aims of study not only understand the effect of digital arts therapy activity on different target segments (youth and older adults), but also contribute to the understanding of the readiness of adoption of digital expressive arts therapy in the mental health system of Hong Kong. This study will be operationalized in two test rounds to two different target groups, namely youth and older adults with mental disabilities. There are two groups, and each group will consist of 50 youth and 50 elderlies. A total of 100 participants (2 x 50) will be involved eventually. Each round is evaluated with an art therapy teacher and digital devices. In the first round, the art therapy teacher independently analyze art products made by both youth and older adult participants. In a second round, the operationalization of the formal elements is adjusted based on the evaluations and tests where a new art therapy teacher independently evaluates art products from both youth and older adult participants. Their evaluations will be tested for interrater reliability. This study involves data collection, analysis and integrating close-ended quantitative research (such as questionnaires) and open-ended qualitative research (such as focus groups). Such a method can strengthen the reliability and validity of this research, offset weaknesses inherent in using a single type of research activity, triangulate findings, and extend to depth and breadth of insights. The results of this study would indicate whether digital expressive arts-based interventions have different effects on the emotional and behavioral well-being of youth and older adult participants. The purposes of these activities are for early mental diagnosis and professional support, and provide policy recommendations to the relevant stakeholders and HKSAR government for future preventive medicine development of mental health in Hong Kong.

## **B3.** Building Better Mind Maps- Exploratory Study on the healthy adult brain function on mindfulness-based music therapy (RE: Mindful MUSIC) : f NIRIST perspective

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### Abstract

**Background:** Functional near-infrared spectroscopy (fNIRS) is a non-invasive neuroimaging technique that measures brain activity by detecting changes in hemoglobin concentrations. In the current study, a wireless fNIRS device cwas used to measure real-time changes in HbO over the prefrontal cortex.

**Methology:** <u>Participants</u> A total of 36 participants with ages ranging from 18 to 78 years (mean, SD;  $47.7 \pm 18.8$  years) were recruited from communities in Hong Kong with convenient sampling method.

<u>Intervention and Methology</u> The protocol was administered to each participant individually in the laboratory venue. The study protocol and nature of the experiment were explained before obtaining signed informed consent and followed by collecting demographic information. Participant was being seated in a relaxed position on a reclining chair with head support in a dim-lit and quiet environment, facing a 40-inch monitor placed 1 meter from the seat.

Prefrontal oxygenation was collected by a non-invasive and wireless device, 15-channel continuous wave imager system, NIRSIT-LITE (OBELAB Inc., Seoul, Korea) which was mounted on the participant's head by a trained research assistant.

**Data analysis:** The analysis work was conducted through the NISIT LIT Analysis Tool v3.1.0 provided by OBELAB. The modified Beer-Lambert law (MBLL) was used.

**Result:** All participant show the average hemodynamic changes ( $\Delta$  HbO) of participants during 5 stages (Resting, Elicitation, Enhancement, Mindfulness and Round up). The  $\Delta$  HbOs measured from all NIRS channels were displayed.

**Conclusion:** fNIRS showed a more reliable measurement of the mood and prefrontal cortex under the mindfulness-based music activity

Keywords: Mindfulness Based Music Therapy, Well Being, Health

### **B4. Enhancing Elderly Comfort Through 3D-Printed Smart Sole Shoes in Hong Kong**

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### Abstract

This research explores the design mechanism of 3D-printed smart sole shoes for the elderly in Hong Kong. The study aims to improve the quality of life for elderly individuals by utilizing innovative technology in footwear design. The research focuses on the customization of the shoes to accommodate the unique needs and preferences of elderly users, with an emphasis on comfort level and aesthetic design. By integrating 3D-printing technology into the design process, the shoes can be easily adapted to individual foot shapes and sizes, facilitating better fit and reducing discomfort. Through a comprehensive survey and analysis of a diverse elderly sample group, this study identifies key factors influencing their choice of footwear, such as comfort, style, and functionality. Additionally, the research examines the impact of falling frequency on the footwear selections of the elderly in Hong Kong. With a focus on the demands of the aging population, uncovering the underlying factors that influence their choices in footwear design is imperative. By conducting interviews with elderly, the research seeks to elucidate how comfort standards and personal styles shape their views on footwear aesthetics. Investigating the design and functionality of smart sole shoes to address the distinct necessities and comfort requirements of the aging population. The findings highlight the importance of addressing the specific needs and preferences of this demographic in senior footwear design and technology regarding smart footwear. Valuable insights could be provided for designers and manufacturers looking to cater to the specific design elements of the elderly market in Hong Kong, ultimately contributing to the creation of more inclusive and age-friendly footwear designs. By gaining these insights into the specific inclination of elderly individuals when it comes to footwear, this study seeks to inform the inventive development of more ageappropriate and comfortable design options to have the potentiality to improve daily comfort. In conclusion, this research significantly contributes to the progression of wearable technology in elderly care. By emphasizing the potential of smart footwear in promoting healthy aging and addressing the specific needs of the aging population in terms of footwear design, the study underscores the importance of integrating innovative technology in senior fashion. This advancement has the potential to positively impact the overall well-being and comfort of elderly individuals.

Keywords: Elderly, Comfort, 3D- Printed Smart Sole

## **Parallel Session C: Population ageing**

## **C1.** Comparative Study on Physical Health and Cognitive Status of Elderly Individuals Residing in Urban, Semi-Urban, and Rural Communities

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#### Abstract

The Thai elderly population commonly experiences non-communicable chronic illnesses and deteriorating physical and mental health due to physiological changes. Additionally, economic, social, and environmental changes resulting from urban expansion have influenced the lifestyles of elderly individuals residing in urban and rural areas. This study aimed to compare the physical health and cognitive status of elderly individuals living in urban, semi-urban, and

rural communities.

Materials and Methods: A cross-sectional study was conducted, recruiting voluntary elderly individuals aged 60 years and above, comprising both males and females, with ages ranging from 60 to 92 years. A total of 225 participants were divided into three groups: urban community elderly (Group 1), semi-urban community elderly (Group 2), and rural community elderly (Group 3). Physical fitness was assessed using the Senior Fitness Test, while blood parameters including fasting blood sugar, creatinine, cholesterol, triglycerides, and High-Density Lipoprotein (HDL) were measured. Fall risk was evaluated using the Timed Up and Go (TUG) test, and cognitive status was assessed using the Modified Mini-Mental Status Examination (3MS).

Results: Significant statistical differences were found in body weight among elderly individuals residing in urban, semi-urban, and rural communities (p=0.009 and 0.001, respectively). Blood parameters including fasting blood sugar (FBS), creatinine (SCr), cholesterol, triglycerides, and HDL also showed significant differences among the three groups (p=0.02, p=0.001, p=0.001, p=0.001, p=0.001, respectively). Cognitive assessment scores significantly differed among the three groups (p=0.001). Physical fitness assessments revealed significant differences in upper body strength, upper body flexibility, and lower body flexibility among the three groups (p=0.019, p=0.008, and p=0.009, respectively).

Conclusion: Elderly individuals residing in urban communities exhibited higher body mass index and fasting blood sugar levels compared to those in semi-urban and rural communities, indicating a higher risk of non-communicable chronic diseases and metabolic syndrome. Conversely, elderly individuals in rural communities had higher creatinine levels, potentially predisposing them to accelerated renal impairment. Moreover, cognitive assessment scores of elderly individuals in semi-urban and rural communities were lower than those in urban communities, suggesting a higher risk of cognitive decline. Therefore, appropriate preventive measures should be tailored to elderly individuals residing in urban, semi-urban, and rural communities to address these issues effectively.

Keywords: elderly, physical health, cognition

## **C2.** The Effectiveness of Baduanjin on Community Dwellers Among Different Regions in Greater Bay Area (GBA)

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#### Abstract

**Background:** Poor muscle fitness and weakened balance are common among older population in China. Sedentary lifestyles are associated with these health issues. Exercise is always recommended to old people for enhancing muscle fitness and balance. Baduanjin (BDJ) is traditional Chinese rehabilitative exercise commonly practiced by old community dwellers. BDJ is an easy exercise with mild-to-moderate intensity. It brings various health benefits to the older Chinese population.

**Objective:** To investigate the effectiveness of BDJ training program on muscular fitness and balance of old community dwellers in different regions of GBA.

**Method:** 69 community dwellers (Male=6; female=63; Age=68.07±5.27 years) from different regions (Hong Kong, Guangzhou, Shunde, Ningbo) of GBA were recruited by convenient sampling. Participants attended 4-6 sessions (1-1.5 hours/session) of supervised BDJ training and were instructed to have home-based practice in October 2023 to January 2024. Each training session consisted of warm-up stretching, BDJ and breathing practice, and cool-down exercise. Demographic information, lifestyle, and medical profile was reported by self-administered questionnaire in the first training session. Muscular fitness was assessed before and after intervention by 30-second Chair Stand Test (CST) and 30-second Arm Curl Test (ACT). Balance abilities of participants were assessed by Timed Up-and-Go Test (TUGT), Single Leg Stance Test (SLST), and Functional Reach Test (FRT). The data were analyzed by paired samples t-test and Wilcoxon signed rank test through the application of the PSPP.

**Results:** 20.9% of participants reported no regular physical exercise or exercise for less than 1 time per week. The results of CST (p<0.001), left ACT (p<0.001) and right ACT (p<0.001) were improved after BDJ intervention. Significant improvements in right SLST (p=0.002), TUGT (p<0.001), and FRT (p=0.005) were observed. No significant change was observed in left SLST.

**Discussion:** Multiple joints in both upper body and lower body are trained in BDJ movements. Slow, smooth, and coordinated joint movements, weight shifting, and maintaining posture are important in BDJ practice. Results of this study indicate that BDJ can be an effective training for enhancing muscle fitness and balance among old community dwellers in 1 to 2 months. Better overall muscle fitness is shown by improved results of CST and ACT. With stronger muscle strength and coordinated body movements, balance ability can be enhanced. The improvements in dynamic balance and functional balance are reflected by significant results of TUGT and FRT. Static balance improvement is shown by better right SLST results after training. No improvement in left SLST results can be explained by lacking confidence of standing by non-dominant leg only. Further research should be done with bigger samples and comparing the performances of different age groups.

**Conclusion:** BDJ training is effective for improving muscular fitness and balance of old community dwellers in different regions of GBA.

Keywords: Baduanjin, Elderly, Greater Bay Area

### C3. Interdisciplinary Story as End-of-Life Healing: Palliative Care Film/Literature

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Abstract

This research delves into the potential of medico-psychological storytelling, particularly in film and literature, to alleviate suffering and foster healing among patients in palliative care settings. Drawing on Assoc. Professor Andy Ho's insights, the work emphasizes the importance of narrative in enabling patients and families to confront and transcend the emotional complexities of end-of-life experiences.

Assoc. Professor Ho's Family Dignity Intervention model (FDI) forms the foundation of the research, focusing on using storytelling to imbue the dying process with renewed purpose and meaning. Central to this approach is the understanding that love, admiration, and gratitude can provide essential sources of hope and solace for individuals facing mortality.

However, the proposal also acknowledges the potential pitfalls of visual storytelling, prompting the implementation of Mindful Compassion Art-Based Therapy (MCAT) to encourage patients to express their experiences through art. By making the intangible tangible, the arts become a powerful medium for fostering genuine connections and alleviating loneliness and suffering for patients and caregivers.

The research extends beyond theoretical frameworks, incorporating practical elements such as short films and literature analyses. The proposed film aims to communicate essential information about mortality in a digestible format for Singaporean audiences, bridging the gap between palliative care and public understanding. Similarly, patient-based literary analyses contribute to scholarly discourse while exploring the potential of intermedial storytelling.

Through this interdisciplinary approach, the research seeks to generate tangible outcomes, including academic papers and potentially a feature-length film. By integrating literature, cinema, storytelling theories and psychological statistical research, the project aims to catalyze advancements in medical humanities, offering both scholarly insights and practical tools for healing and growth.

Ultimately, the research underscores the transformative power of cinematic storytelling in palliative care, highlighting its capacity to foster empathy, resilience, and community among patients, caregivers, and wider audiences alike.

Keywords: End-of-Life; Palliative Care; Film; Literature

# C4. How do Older Adults Cope with IT Safety and Scams when Using Smartphone Applications?

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### Abstract

The ownership of smartphones (57.2%) and internet connection (56.3%) is becoming increasingly common among older adults. According to the Technology Acceptance Model and the Unified Theory of Acceptance and Use of Technology, technological anxiety is one of the

major factors that affects the use of technology. To investigate how older adults cope with scams and IT safety when using smartphones, a 90-minute focus group study was conducted in the summer of 2023. The study included 145 older adults aged 55 years or above, divided into 23 groups of 6 participants each. All interviews were transcribed in the original language (Cantonese), and thematic and content analysis were conducted.

The study found that older adults' approach to coping with IT safety and scams can be divided into three stages: awareness, prevention, and implementation. Regardless of gender and socioeconomic status, older adults reported that their awareness of IT scams is generally high due to news coverage, mass media, and peers. In the second stage of prevention, older adults avoided using public Wi-Fi for online banking transactions because they understood that public Wi-Fi is not secure and can lead to personal information leakage. Additionally, older adults checked with family members if they received any phone calls from strangers asking for money of a suspected kidnapping of family members. The last stage, implementation, involves close collaboration with the police in arresting scammers.

Significance of the study:

The Unified Theory of Acceptance and Use of Technology suggests that technological apprehension, as well as performance expectancy, effort expectancy, social influence, demographics, and voluntariness of use, are major factors affecting system use. On one hand, it is more common for older adults to use smartphones, especially in the aftermath of COVID-19, as Hong Kong has endured 13 months of compulsory smartphone-based track-and-trace policy to control the spread of the pandemic. On the other hand, although the crime rate is low in Hong Kong, deception (e.g., e-shopping fraud, phishing scams, telephone deception, investment fraud, etc.) has experienced an increase (52.1%) between the first half of 2022 and that of 2023. Deception also ranked in the top 3 among all crimes. It is thus imperative to investigate how technological apprehension affects the use of smartphone applications among older adults and how they cope with IT scams. Given that COVID-19 has lasted for 3 years, it may be difficult to conduct face-to-face focus groups with the elderly. Moreover, since older adults might use smartphone applications more frequently in every aspect of daily life, especially after the pandemic, the post-pandemic era may provide an opportune time to embark on this study.

Keywords: Older Adults, IT Safety, Scams, Smartphone Applications, Hong Kong

# C5. Elderly Health Care Voucher Scheme: Needs Assessment and Evaluation of Outcomes

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### Abstract

Elderly Health Care Voucher Scheme represents as a form of demand-side subsidy given to the elders to choose a spectrum of medical services in the private medical sector. It was first

introduced in 2009 and later regularized in 2014. The current paper aims at conducting a need assessment with an analytical framework of 4As analysis and evaluating whether the outcome measures of the scheme (i.e., the use of private healthcare services, the use of primary care and the empowerment of the elders in the choice of services) were achieved. By incorporating a time-series data from 2009 to 2022, the needs assessment concluded that the utilization rate of the elders, awareness and satisfaction rate are both high albeit some problems such as the uneven distribution of enrolled service providers across different districts and small voucher amount. The positive sides concluded from the need assessment, however, failed to turn into the fulfilment of outcome measures. The scheme failed to encourage elders to use primary care and private medical services due to the structural barriers emanating from underdeveloped primary healthcare system and health system fragmentation. Recommendations at short-term, medium-term and long-term are made.

At the short-term level, recommendations should be made to address scheme-related barriers, including increasing voucher amount, how to encourage more service providers to participate and how to make the service providers more proportionate to the number of elders in each district.

At the medium-term, the healthcare voucher scheme should not be singled out as one single scheme and isolated from the macro medical system because the fulfilment of program outcomes is rather constrained by structural barriers.

A sole emphasis on the short-term and medium-term solutions, however, may not suffice to achieve program outcomes. It should be supplemented by the long-term recommendation in cultivating a culture for the elders to use preventive care and private medical service because elders are long accustomed to the public sector for acute care.

Keywords: elderly health care voucher, needs assessment, Hong Kong

### C6. Social capital among older adults: the conceptual underpinnings in the Mainland Chinese socio-cultural context

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#### Abstract

Population aging as a global phenomenon presents multifaceted challenges for social and health policies worldwide, such as increased demand for healthcare services, strain on pension and welfare systems, and changes in family structures. Social capital, defined as the networks, relationships, and norms with groups and organizations that facilitate cooperation and mutual support within a community, is pivotal in addressing these challenges as shown in previous research. Examining social capital among older adults is essential as it directly influences their well-being in various respects. In the context of Chinese culture, traditional values and social norms significantly shape the social capital of older adults. This presentation aims to discuss the formation, characteristics, and influencing factors of social capital among older adults within the context of aging population, with a specific focus on the Chinese cultural context. Based upon existing literature and conceptual underpinnings, the discussion reveals the intricate interplay of traditional values, social networks, and institutional factors in shaping social capital among older adults in Mainland China. While traditional values such as filial piety and reciprocity continue to influence social interactions, modern social changes and urbanization present new challenges and opportunities for social capital formation. The development of digital technologies has introduced novel avenues for social capital for older adults. The factors influencing social capital among older adults also hold significant implications for policy and practice. The conceptual analysis and discussion point to the fact that policymakers and practitioners should target interventions and programs for enhancing the social capital of older people by considering the unique socio-cultural context of China. Communities can harness their strengths and resources to address the complex challenges posed by the aging population effectively. In conclusion, this presentation, through enhancing our understanding of social capital among older adults, the effective strategies generated for promoting their social capital could ultimately foster more inclusive and resilient communities in the face of demographic changes.

Keywords: social capital, older adults, population ageing, Chinese culture

### **Parallel Session D: Primary healthcare**

### **D1.** Healthcare at Arm's Length: Exploring the Effects of Distance on Health Services Utilization in Odisha, India

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#### Abstract

The location or distance from healthcare facilities affects households' socio-economic conditions. The distance from the healthcare facility significantly affected catastrophic health expenditure. Families living in villages where a primary health centre (PHC) was not located had higher odds of experiencing catastrophic health expenditure compared to those living in villages with a PHC. This suggests that inconvenient distance from healthcare facilities can lead to higher out-of-pocket health expenditures, which in turn can exacerbate poverty and have a negative impact on equity.

The paper intends to analyse the healthcare facilities' distance from households in different districts of Odisha, including rural and urban phenomena. The study aimed to study the households' wealth index and its impact on households' distance from healthcare facilities.

The study is based on six purposively selected districts in Odisha: Rayagada, Kalahandi, Angul,

Keonjhar, Khordha, and Kendrapara. A cross-sectional household survey was conducted to collect the data. Households were chosen as the research unit. The survey took place from October 2023 to February 2024. A structured household questionnaire was used to collect the data. 902 household data were collected. Data analysis was carried out in SPSS version 25 and Microsoft Excel.

Private clinic facilities were available less than one hour's distance in Keonjhar (92.1%), while other districts had less than 60% of households. On the other hand, health facilities managed by non-government organisations (NGOs) were seen prominently in Kalahandi. In terms of the rural-urban nature of households, private clinics, public hospitals, NGO hospitals, and private pharmacists were found to be serving urban residents within less than an hour's reach, while rural households were subjected to avail of these health centres' facilities more than one hour travel time. Regarding the wealth index, 25.5% of the poor category households had to spend more than one hour to reach a public hospital, while only 1% of wealthy households faced such inaccessibility in Odisha.

The data shows that households in deprived districts (Rayagada and Kalahandi) faced difficulty accessing healthcare facilities because of the faraway location. NGO-based healthcare facilities were present, located in urban areas, and rural households were left unserved. The study reveals that there was a higher number of households inflicted with acute illness, but the total household spending on health was lesser. There may be many causes of inaccessibility. However, many studies have suggested that far-away healthcare facilities lead to no treatment seeking.

Ensuring healthcare facilities, such as hospitals, pharmacies, and AYUSH medicines, are the minimum requirements within one hour of reach for every household in India. Underreporting of illnesses and diseases is one of the major factors of high mortality in the population. Physical accessibility to healthcare facilities can reduce the mortality burden of the population.

Keywords: Healthcare facilities, Disease burden, Hospitals, Pharmacies, AYUSH, Jan Aushadhi, Traditional healers, Odisha

### D2. Developing an interdisciplinary care protocol for patients with knee osteoarthritis

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### Abstract

**Background:** Knee osteoarthritis (KOA) is a prevalent joint disorder affecting a significant number of individuals worldwide, particularly among older adults. The condition is characterized by the gradual degradation of knee joint cartilage, leading to pain, stiffness, and reduced functionality. Effective management of KOA necessitates a multidisciplinary approach involving collaboration among healthcare professionals from diverse disciplines. Existing evidence has demonstrated that the implementation of a multidisciplinary approach yields positive outcomes in terms of pain reduction, improved functionality, and enhanced overall

quality of life for patients. However, the treatment of knee osteoarthritis involves a broad range of professions, each with different approaches to defining, developing, implementing, and evaluating professional competencies. Consequently, the development of an interprofessional protocol necessitates collective participation and research. Regrettably, this issue has not received sufficient attention in the current literature.

**Objective:** To construct a working protocol which aims to provide a comprehensive framework for the collaborative management of KOA by a multidisciplinary team of healthcare professionals, including Traditional Chinese medicine practitioners, physicians, nurses, physiotherapists, occupational therapists and social workers.

**Methods:** This study was an exploratory research that consists of two stages: a focus group (exploration stage) and a Delphi study (evaluation stage). In the exploration stage, the research team drafted a protocol for a multidisciplinary workflow and framework for knee osteoarthritis (KOA) based on a comprehensive literature review and input from experts in related fields. Open-ended questions were utilized to thoroughly explore various topics, including communication patterns, leadership and collaboration models in KOA interventions across different professions, the expectations and effects of each profession, barriers to and facilitators of interprofessional intervention efficiency, the role positioning and contribution of each profession in managing KOA, and how each profession can establish effective interprofessional KOA intervention measures. In the evaluation stage, multiple rounds of questionnaire surveys were conducted to collect expert opinions. The results of each round were analyzed, and the findings were used to construct a new set of questions for the subsequent round. This iterative process was continued until a consensus was reached among the experts.

**Conclusion:** This study facilitates the understanding of the roles and responsibilities of various medical professionals in a team, and promotes the communication between Traditional Chinese medicine practitioners and other medical disciplines, thus enhancing the development of interdisciplinary primary care with Traditional Chinese medicine as a core, and benefiting patients with KOA and the industry.

Keywords: osteoarthritis, interdisciplinary, traditional Chinese medical practitioner

### D3. Maternity care sustainability in rural hospitals in Australia

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### Abstract

In recent years there has seen significant closure of small maternity units particularly in rural regions of Australia. It is estimated that over the last 20 years 130 maternity units have closed. Reasons attributed to this include maternal and neonatal safety due to lack of adequately qualified workforce, specifically midwives and GP obstetricians or anaesthetists. This is partially because these maternity units require 24 hour surgical and anaesthetic coverage onsite. Those small maternity units that do continue to care for childbearing women may only provide

antenatal and postnatal care with women giving birth in a larger maternity unit often some distance away.

There are some small maternity units that continue to provide complete care to childbearing women which is the focus of this research. The issue here is that these small rural maternity units tend to only cater for women who are having a low risk pregnancy. When the women is deemed 'high risk' they will need to transfer to a larger maternity unit for their ongoing antenatal visits and to birth. These larger maternity units are often some distance away requiring women to travel for each antenatal care visit and for birth.

Level of risk is determined by the hospital risk assessment guidelines and includes such things as their 'advancing' age, high BMI or development of gestational diabetes, hypertension, just to name a few. There appears to have been little exploration of women's experience when they are deemed at risk and are required to transfer their care and have their antenatal care and childbirth in a larger maternity unit that is usually some distance away. This research aims to explore women's experience of having to transfer their care to a larger maternity unit due to being deemed at risk through interview of 40 women deemed at risk.

The paper will present the preliminary findings from these interviews. Ultimately the aim is to assess how care can be improved for these women and potential options/models of care and make these small rural maternity units sustainable. Recommendations will be made in how best these women can be supported.

Keywords: rural maternity care, high risk, transfer care

### **Parallel Session E: Universal health coverage**

# E1. Inequities of access to healthcare services related to geographic location in rural Australia: Palliative care case study

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### Abstract

Evidence supports the benefits of palliative care provision for people diagnosed with a lifelimiting illness and their family caregivers (Borbasi, 2017). Palliative care with a personcentred approach aims to optimise quality of life by prioritising the needs and values of individuals in every interaction with healthcare services. Ensuring every person has access to the healthcare they need, when, and where they need it, is recognised as a basic human right (World Health Organization (WHO), 2021). Inequities of access to healthcare services related to geographic location in rural and remote areas of Australia are well known (Australian Institute of Health and Welfare (AIHW), 2019). Peri-urban areas, in particular, offer a rural lifestyle in proximity to urban centres and have witnessed a surge in popularity and unprecedented population growth, impacting the provision of healthcare services. This research suggests that barriers to accessing community palliative care services in peri-urban locations are less understood and requires exploration. This dissertation will argue that current classifications of location used to determine palliative care service policy, methods of delivery and allocation of resources, fail to consider the heterogeneity and complexities of peri-urban locations.

**Methodology:** An exploratory, inductive and interpretative approach to the research was adopted to develop an online web-based Qualtrics survey for data collection. The aim was to understand the barriers to access from the perceptions of providers and consumers of community palliative care in peri-urban locations. Thematic analysis was adopted to find the participant meaning in the qualitative data, while descriptive statistics were used to analyse the quantitative data to support the identified reality of participants. Ninety (n = 50) health practitioners, (n = 91) family caregivers and (n = 30) patients, participated.

**Findings:** This research identified a number of key issues influencing community palliative care provision in peri-urban locations. The barriers to access, known to exist in rural Australia were identified in peri-urban areas, with the home location viewed by both practitioners and caregivers as an obstacle to accessing required services. The distance and time involved in travel due to location influenced decision-making and choice of location for care and place of death. Practitioners described the physical and emotional risks from their perception of an inability to provide appropriate care to clients. Caregivers voiced frustration and described increased carer stress they attributed to unmet needs. Therefore, this research contributes to knowledge by identifying the need for service providers to consider some of these complexities of peri-urban locations in policy.

**Significance:** The risk for physical and emotional distress is real for those individuals seeking palliative care but facing accessibility barriers. The removal of personal choice and preferences in care, treatment and locations for care and death has the potential to impede quality of life, wellbeing, and the grieving process. The demand and need for community palliative care services is increasing and policy recommendations play a critical role in removing barriers due to geographic location.

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Keywords: Palliative care, Community care, Peri-urban, End of Life, barriers to access

# E2. Access Generic Medicine Genesis through People's Medicine Centre (PMC) in Odisha, India: A Qualitative Study

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### Abstract

**Introduction:** The concerns of inaccessibility to essential medicines in India are well-studied and documented. Pradhan Mantri Bhartiya Janaushadhi Priyojana (PMBJP) is the policy response to address the inaccessibility of essential medicine. PMBJP is India's central government scheme hosted by the Department of Pharmaceuticals, which comes under the Ministry of Chemicals and Fertilizers. The scheme is uniformly introduced in all the states of the country to benefit the people at large in 2008. The objective of the scheme is to provide high-quality medication to everyone belonging to different strata of the population, especially the underprivileged and impoverished. The state has high regional inequality where few districts are economically developed while many others are economically backward, and access to medicine remains a challenge.

**Objective:** The present study intends to inquire into the nature of PMC ownership, pharmacists' motivations and incentives to engage in the PMC business, perceived customers' trust and satisfaction, scheme beneficiaries, and challenges.

**Methods:** A qualitative research approach is adopted to evaluate the broader subjective accounts of the pharmacists and PMCs. An open-ended interview schedule was used. The topics of ownership, motivation, incentives, trust, satisfaction, perceived benefits, and challenges require elaborated statements from the participants. Therefore, open-ended in-depth interviews were best suited for the study. PMC pharmacists were the only participants in the study. The data collection took place in January and February 2023.

**Results:** The study found that the ownership of the PMCs was of two types in the state of Odisha; one is public-NGO-owned PMCs, and the other is public-private-owned PMCs. The financial incentive provisions in the scheme attracted private pharmacists to engage in PMCs. PMC pharmacists highlighted the lower price of PMC (generic) medicines compared to branded medicines. They also pointed out that there is no difference in the efficacy of both medicines. The attitude of physicians, especially private physicians, were considered problematic for PMCs' popularity and acceptance. In short, PMCs are serving their main objective of providing low-cost quality medicines with the active participation of entrepreneurs and improved trust but are challenged due to disapproval from the larger physicians' fraternity and also due to pre-2015 ownership model.

**Conclusion:** The PMCs in Odisha have established themselves as trusted outlets despite physicians' unfavourable attitudes. Although PMCs have not reached a required level of coverage; economically developed regions have many PMCs, while backward regions have minimal presence of PMCs. There is a need to understand the possible causes of disinterest in running the PMCs in the backward regions/districts by the stakeholders.

Keywords: Universal Health Care, Access to medicine, NCD, Global south, Regional imbalance, Healthcare management

### **Parallel Session F: Presentation + Feedback**

# F1. A Vision of a Framework for Evaluating and Rating Online Counseling Applications in China

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#### Abstract

This study finds that there are serious shortcomings in the evaluation of online counseling applications in the growing Chinese market. The current market for online counseling apps in China lacks a systematic and scientific assessment framework and rating rubric. In addition, Although China's app platforms have internal scoring systems, they lack uniformity and objectivity and are difficult to adapt to rapid technological advances.

To address these shortcomings, this paper proposes a novel rating rubric that specifically addresses the current state of online counseling in China. The rating rubric draws on the existing APA framework but adapts it to China's unique cultural context and user needs. The rating rubric focuses on five key dimensions-access and counselor background, privacy and security, clinical foundation, usability, and data integration-providing a user-centered approach. By simplifying the APA framework and incorporating user feedback mechanisms, the approach enables users to make informed choices about available online counseling applications.

The paper concludes by highlighting the need for further research to validate the effectiveness of this user-centered rating rubric through user feedback analysis. In addition, the paper emphasizes the need for an integrated third-party platform. Such a platform would foster trust among users and create a safe and effective ecosystem for mental health support in the digital age.

Keywords: evaluating framework; online counseling; Rating rubric

# F2. Resilience Capacity of Pre-Hospital Ems Providers and the Future Agenda for Sustainable Development of Resilient Ems System in Thailand

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#### Abstract

In the current scenario, demand for emergency care is rising due to the shift in disease pattern all around the world, from growing burden of non-communicable diseases to the pre-existing communicable diseases. The principle aim of emergency medical service (EMS) system is to prevent premature mortality, reduce pain and prevent long term disability. EMS workers serve on the front lines of emergency medical care, which is one of the most important components in an EMS system of any country. Since the latest pandemic has caused increased burn out and stress among the service providers with long term mental and physical effect which is yet to be researched in Thailand, and no study in particular have addressed to evaluate the resilience capacities of the front-line EMS workforce and identify components that influence their performance and response to emergencies.

This study aims to measure the resilience capacity of pre-hospital EMS providers of Thailand along with providing recommendations to policy makers regarding EMS service provider future agendas and standard methods for proper workforce planning and development in order to tackle future public health emergency situations. There are two phases of the research including quantitative survey followed by Key Informant Interviews with the experts from the Thai EMS system.

Resilience capacity was divided into high, moderate and low; Components and factors were developed through literature review and grouping was done. With total 41 questions: Safety, competencies, wellness and BH can now help researchers gain a clearer picture of how adult personal resilience relates to other variables, and why some individuals are more resilient than others in response to different environmental and/or interpersonal stressors.

The result from the survey shows that the EMS service providers have moderate resilience in terms of Behavioral Health which is related to their psychometric properties and main components to measure the resiliency scales. Similarly, in terms of Safety, wellness and competencies components the EMS services have shown moderate level of resilience capacity as a front-line worker in the emergency medical service system to prepare for the future public health emergencies.

From the factor analysis process, the prominent component that reflect the resilience level among the EMS service providers was wellness components, followed by team work climate and after that the safety attitude component of the EMS workforce.

The findings of the research present the perception and opinions of different EMS providers working in various provinces of Thailand. This study explores the present status/situation of front-line workers of the EMS system in Thailand. The findings provide crucial recommendations to health policy makers for developing resilient EMS system and their workforce in Thailand focusing on pre-hospital care setting. This research suggests measurement tools and plans focusing on the EMS future agenda 2050.

Keywords: emergency medical services; EMS; pre-hospital system; EMS workforce; health system resilience; personal resilience; psychological resilience

# F3. Environmental design interventions in practice to enhance the well-being of older adults

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### Abstract

The urban environment is the primary setting for many older adults to grow old. The importance of creating age-friendly cities and communities that cater to older adults' needs is being recognized in the domains of health, aging, and public policy. The living environment of old adults is complex as it contains many different factors. The individual's abilities and the demands of environmental factors change during the aging process. A responsive built environment may reduce the impact of these conditions and positively influence aging, so that older adults remain independent as they age. The public spaces of a community are a key factor in the personal and social well-being of older adults living in urban environments. This paper proposes to introduce environmental design into the study of a healthy aging environment, testing whether and to what extent different environmental features influence aging. Environmental design encompasses a wide range of disciplines, including, but not limited to, architecture, landscape architecture, and urban planning. In general, environmental design centres around the reconciliation of "people - buildings - environment". Environmental design strategically connects people to community spaces through participatory design methods. It promotes change through civic empowerment, encourages creativity and new possibilities, and enhances the diversity of the community environment. At the same time, it encourages community participation from the bottom up, enhances community cohesion and sustainable development through resident-centred design interventions, activates neglected spaces, explores how to integrate space and needs for social function design, and promotes the improvement of public spaces by focusing on the living conditions and needs of the "people" in the community. Improve the physical environment of the community with accessible design, safety and other infrastructures, encourage residents to interact socially to develop a sense of community and belonging. Environmental factors have a significant impact on the quality of life of older adults. The aging population's heterogeneity may result in a different aging experience among individuals living in different environments. Through a participatory design intervention approach, it analyzes the contradictions that exist in the community environment and seeks potential ways of co-existence. Promoting social interaction and community participation among older people enhances elders' sense of belonging to the environment and social cohesion, thereby improving their mental health and social relationships. Keywords: aging environment, environment design, community participation

### F4. Ethnicity and Health and Wellbeing of Older Chinese and South Asians in Hong Kong

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#### Abstract

With advancements in modern technology and improvements in sanitary conditions, global life expectancy has increased. Hong Kong, one of the world's most economically prosperous cities,

faces the dual challenge of an aging population and increasing ethnic diversity. For instance, between 2016 and 2021, the population of South Asian individuals aged 65 and older in Hong Kong rose from 7,870 to 10,350, a 31.51% increase.

This study has examined the impact of ethnicity on the health and well-being of older adults in Hong Kong. A sample of 544 older adults participated in either a telephone survey (389 Hong Kong Chinese) and in-person interview (155 South Asians), recruited via random digital dialing of household telephone numbers (for the Chinese) and non-probability, purposive, and convenience sampling from communities with a high concentration of South Asian residents. The data were analyzed using regression analysis with ethnicity as the independent variable and health and well-being factors as the dependent variables.

The results have indicated that being South Asian was significantly associated with lower quality of life, suggesting that South Asian older adults encountered more health and wellbeing challenges compared to their Hong Kong Chinese counterparts. These findings underscore the profound impact of ethnic disparities on health and well-being outcomes among older adults in Hong Kong. The results highlighted the need for targeted public health strategies that address the specific needs of ethnically diverse and aging populations. By recognizing these disparities, policymakers and service providers should develop more effective programs to reduce the ethnicity gap. This study has contributed to the little research that has been done on older ethnic minorities and formed the basis for future interventions for reducing ethnic health disparities to be further developed.

Keywords: Ethnic Health Disparities, Aging Multicultural Populations, Health and Well-being in Older Adults

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