

COLLEGE OF PROFESSIONAL AND CONTINUING EDUCATION 專業及持續教育學院









Quality Health Care for All:

Through People, Technology, Patient Empowerment and Sustainable Financing System

全民享用優質醫療服務:

從人才、科技、病人自主及可持續融資

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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 over 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. The Academic Discipline of Health and Life Sciences of CPCE was commissioned to organise this Conference with the aim to share research and scholarly work pertinent to healthcare delivery and financing reform. It also takes the opportunity to promote interdisciplinary education and research on the topics related to the theme of this Conference -- "QUALITY HEALTH CARE FOR ALL: Through People, Technology, Patient Empowerment and Sustainable Financing System".

Speakers for the Plenary Sessions include: (1) Dr Chui Tak-yi, JP, Under Secretary for Food and Health, Government of the Hong Kong Special Administrative Region (HKSAR) to deliver the Keynote Address, (2) Dr the Honourable Lam Ching-choi, BBS, JP, Non-official Member, Executive Council, HKSAR, Chairman, Elderly Commission, Chief Executive Officer, Haven of Hope Christian Service to speak on "The Manpower Challenge" in Healthcare Industry", (3) Dr Chan Chung Yee Hubert, JP, Chairman & CEO, HKC International Holdings Limited, Outstanding Alumni Award 2013, The Hong Kong Polytechnic University, to speak on "Integrated Home Care and Inpatient Computer System for Hospice and Palliative Care", (4) Professor Peter P. Yuen, Dean of CPCE, The Hong Kong Polytechnic University, to present on "Making Tax-based Healthcare Systems Sustainable: The Way Forward for Hong Kong", (5) Dr Zhanming Liang, Senior Lecturer, School of Psychology and Public Health, La Trobe University, President, the Society for Health Administration Programs in Education (SHAPE), Adjunct Professor, Naresuan University, Thailand, Fellow, Australian College of Health Service Managers, to speak on "Manpower Challenges in the Health Industry in Face of Change", (6) Dr Zhang Hui (Vivienne), Assistant Professor, Department of Health Policy and Management, Sun Yat-sen University, Guangzhou, China, to speak on "Direct Economic Burden of Alzheimer's Disease Among Patients Covered by Health Insurance in Guangzhou", (7) Dr Francesca Quattri, Associate Professor, School of Foreign Languages, Jiangsu University, Jiangsu Province, China, to speak on "Patient Empowerment in Times of Disease Branding - Where It Crumbles and What to Do", as well as (8) Dr Sabrina Ching Yuen Luk, Assistant Professor in Public Policy and Global Affairs, Nanyang Technological University, to speak on "Aging in Place via Telehealth: The Case Study of Singapore".

There are four parallel sessions containing a wide range of important topics pertinent to quality health care that are not only crucial to Hong Kong and also to other international communities. We are delighted to report that contributors to these parallel sessions include scholars and practitioners from Australia, Chinese Mainland, Hong Kong, Singapore, and the

United Kingdom. These contributors from the region and other parts of the world share their perspectives about people, technology, patient empowerment and sustainable financing system.

ORGANISATION OF CONFERENCE

Conference Chair

Professor Peter P. Yuen

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

Conference Co-Chair

Dr S. H. Liu

President,

Hong Kong College of Health Service Executives (HKCHSE)

Organiser

The Academic Discipline of Health and Life Sciences, College of Professional and Continuing Education (CPCE), The Hong Kong Polytechnic University

Advisors

Dr the Honourable Lam Ching-choi, BBS, JP

Chairman, Elderly Commission

Chief Executive Officer, Haven of Hope Christian Service

Professor Peter Fong

President,

Hong Kong Public Administration Association (HKPAA)

Professor Albert Lee

Director,

Centre for Health Education and Health Promotion, The Chinese University of Hong Kong (CUHK)

Professor Kenneth Lee

Professor of Pharmacy and Head, School of Pharmacy, Monash University Malaysia

Professor Warren Chiu

Associate Dean, College of Professional and Continuing Education (CPCE), The Hong Kong Polytechnic University

Dr Simon Leung

Associate Dean, College of Professional and Continuing Education (CPCE) and Director, Hong Kong Community College (HKCC), The Hong Kong Polytechnic University

Dr Jack Lo

Director, School of Professional and Executive Development (SPEED), The Hong Kong Polytechnic University

Organising Committee

Chair Dr Ben Y. F. Fong, Senior Lecturer, PolyU SPEED

Scientific Subcommitte Chair Dr Artie W. Ng, Principal Lecturer and Deputy

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Publication Dr Vincent Law, Senior Lecturer, PolyU SPEED

Media and Publicity Mr Ray Yuen, Marketing and Communications

Manager, PolyU SPEED

Administrative Support Ms Isis Cheung, Programme Manager, PolyU HKCC

Website & IT Support Mr William Lo, Information Technology Manager,

PolyU CPCE

Members Ms S. C. Chiang, Vice President, HKCHSE

Dr Fowie Ng, Academic Convenor, HKCHSE

Dr Eric Woo, Principal Lecturer, PolyU HKCC

Dr Adam K. L. Wong, Senior Lecturer, PolyU SPEED

Dr Simon T. Y. Cheung, Lecturer, PolyU SPEED

Dr Tiffany C. H. Leung, Lecturer, PolyU SPEED

Dr Jack Wu, Lecturer, PolyU SPEED

Secretary Dr Carrie Wong, Senior Lecturer, PolyU HKCC

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- · Association of International Certified Professional Accountants
- Auxiliary Medical Service
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- · College of Pharmacy Practice
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- · Evercare Health Limited
- · Hong Kong Alliance for Rare Diseases (HKARD)
- · The Hong Kong Association of Family Medicine and Primary Health Care Nurses
- · The Hong Kong College of Nursing and Health Care Management
- · HKMA Institute of Healthcare Management
- · Hong Kong Public Administration Association (HKPAA)
- · Hong Kong Telemedicine Association
- · Institute of Active Aging, The Hong Kong Polytechnic University
- · The Jade Club
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- · Sik Sik Yuen
- · Wu Yee Sun College, The Chinese University of Hong Kong
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PROGRAMME

Welcoming Remarks



Professor Peter Y. Yuen

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

Keynote Address



Dr CHUI Tak-yi, JP

Under Secretary for Food and Health, Government of The Hong Kong Special Administrative Region

Dr CHUI Tak-yi graduated from the Faculty of Medicine, University of Hong Kong, in 1981. He had worked in various clinical departments for more than twenty five years and took up clinical management subsequently. He was the Cluster Chief Executive of Kowloon East Cluster and Hospital Chief Executive of United Christian Hospital from July 2014 to August 2017. His current duties are to assist and support the Secretary for Food and Health in the setting of policy objectives and priorities on agriculture, fisheries, food safety, veterinary public health, environmental hygiene, medical and health, and related implementation issues, handling Legislative Council business and strengthening the working relationship with Legislative Council, and engaging and liaising with all stakeholders to explain and solicit support for government policies and decisions.

Speakers



Dr the Honourable LAM Ching-choi, BBS, JP

Non-official Member, Executive Council, HKSAR; Chairman, Elderly Chairman; Chief Executive Officer, Haven of Hope Christian Service

The Manpower Challenge in Healthcare Industry

Dr Lam is currently the Chief Executive Officer of Haven of Hope Christian Service. He also serves as Chairman of the Elderly Commission and the Community Investment and Inclusion Fund Committee as well as a member of the Health and Medical Development Advisory Committee, the Land and Development Advisory Committee and the Hong Kong Council for Accreditation of Academic and Vocational Qualifications. Dr Lam was awarded the Bronze Bauhinia Star in 2008.



Dr CHAN Chung Yee Hubert, JP, BSc EMBA DBA

Chairman & CEO, HKC International Holdings Limited; Chairman, Society for the Promotion of Hospice Care

BSc in Industrial Engineering, University of Hong Kong EMBA, Hong Kong University of Science & Technology DBA, The Hong Kong Polytechnic University Outstanding Alumni Award 2013, The Hong Kong Polytechnic University

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

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

Dr Chan has received a Bachelor's Degree in Industrial Engineering from the University of Hong Kong. He was then transferred to Japan receiving professional training on Telephone Network Design. Dr Chan has also attained an EMBA Degree from The Hong Kong University of Science and Technology, and DBA from The Hong Kong Polytechnic University which further strengthens not only his industry experience but also his leadership in the Group with cutting-edge management knowledge.

Dr Chan has over 30 years of experience in ICT industry. Under his leadership, the Group was listed in The Stock Exchange of Hong Kong Limited in 2001 (Stock code: 248). The Group is now engaged in distribution and retail of digital products, product development of RFID, home automation, and systems integration in Hong Kong, China and the Asia Pacific Region.

Further, Dr Chan is very active in promoting the ICT industry in Hong Kong. He had served in the Executive Committee of Communications Associations of Hong Kong (www.cahk.hk) for over 10 years and was elected as the Chairman of the association from 2006 – 2012. Dr Chan also is the Chairman of Hong Kong Computer Society Foundation (from 2017 onward), Chairman of GS1 Hong Kong EPC Partners Advisory Board for 2010-2012, the Chairman of Advisory Committee of Green ICT Consortium (2009-2011), the Board member of World Vision Hong Kong (2007-2016), the Council member of Hong Kong Federation of Youth Group (from 2010 onward) and Chairman of Society for the Promotion of Hospice Care (from 2017 onward). Dr Chan also awarded The Hong Kong Polytechnic University's Ninth "Outstanding Alumni Award" to tribute to his remarkable professional achievements and contributions to his alma mater as well as the community.



Professor Peter P. YUEN, BA MBA(SUNY Buffalo) PhD(Birmingham) FCHSE(Aust)

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

Making Tax-based Healthcare Systems Sustainable: The Way Forward for Hong Kong

Professor 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 in the Department of Management and Marketing of PolyU.

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, and his Doctor of Philosophy degree in Health Economics from the University of Birmingham. Professor Yuen's research involves 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.

Professor Yuen is currently Chairman of the Federation for Self-financing Tertiary Education (Hong Kong). 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.



Dr Zhanming LIANG, MB BS MSc PhD FCHSM

Senior Lecturer, School of Psychology and Public Health, La Trobe University; President, the Society for Health Administration Programs in Education (SHAPE); Adjunct Professor, Naresuan University, Thailand; Fellow, Australian College of Health Service Managers

Manpower Challenges in Health Industry in Face of Change

Dr Liang has spent the last decade researching and teaching in the areas of management competency, evidence-informed decision-making, health management workforce development, healthcare quality, and program planning and evaluation. Prior to becoming an academic, she worked in diverse roles as a medical practitioner, a planning and evaluation consultant and a senior manager.

In the past eight years, Dr Liang has been leading the Management Competency Assessment Partnership (MCAP) Program, which has resulted in the development and validation of an evidence-based Managerial Competency Assessment Tool. The MCAP Tool can assess the competence of middle and senior level managers working in the health sector and provide evidence to guide the direction of management training and development. In the past two years, Dr Liang has been working with partners in China and Thailand to develop the capacity in health service management training, education and research in both countries.

The book she co-authored with colleagues entitled 'Project management in health and community services: getting good ideas to work' has been recognised as the best project management book for the health sector in Australia and adopted as a textbook by majority of the Master of Health Administration Programs in Australia. The book has been translated into Mandarin and published by The People's Medical Publishing House, China.



Dr ZHANG Hui (Vivienne), MSc PhD

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

Direct Economic Burden of Alzheimer's Disease Among Patients Covered by Health Insurance in Guangzhou

Dr Zhang is an Assistant Professor in the Department of Health Policy and Management of the Sun Yat-sen University in China. She received her PhD in health economics from The Hong Kong Polytechnic University, MSc in economics from The Hong Kong University of Science and Technology.

As a doctoral student, she spent one year as a visiting scholar at the University of California in the Los Angeles (UCLA) School of Public Health. Dr Zhang's research focus is health economics, especially health insurance reform, health care financing, health policy evaluation, and cost-effectiveness analysis.



Dr Francesca QUATTRI, PhD

Associate Professor, School of Foreign Languages, Jiangsu University, Jiangsu Province, China

Patient empowerment in times of disease branding – where it crumbles and what to do

Dr Quattri is currently Associate Professor at the School of Foreign Languages, Jiangsu University. She received her PhD in Applied Linguistics from The Hong Kong Polytechnic University. She was a one-year visiting researcher at National Taiwan University, and she

worked as a post-doc at the Chang Gung Medical Education Research Centre in Linkou.

Her research in medical education involves exploration of medical teacher-student communication, curriculum development and assessment; professionalism in medical settings; argumentative strategies in medical communication and patient empowerment.

Fran is a reviewer for several international medical education journals (https://publons.com/author/1212737/fran-quattri#profile). She is a verified conference interpreter in German, English and Italian (M.A.; Heidelberg University) and former recipient of the 2011-2014 PhD Fellowship Program by the Hong Kong Government.



Dr Sabrina Ching Yuen LUK, BSSc MPhil PhD

Assistant Professor in Public Policy and Global Affairs, Nanyang Technological University

Aging in Place via Telehealth: The Case Study of Singapore

Dr Sabrina Ching Yuen Luk is Assistant Professor in Public Policy and Global Affairs, Nanyang Technological University (NTU), Singapore. She was awarded her PhD from the Department of Political Science and International Studies, University of Birmingham, the United Kingdom, and her MPhil and Bachelor of Social Science (First Class Honours) from the Department of Government and Public Administration, The Chinese University of Hong Kong. Before joining NTU, Dr Luk was Adjunct Associate Professor in School of Arts and Social Sciences, The Open University of Hong Kong (January - June 2017) and Visiting Lecturer in PolyU SPEED (January - June 2017). From 2013 to 2016, Dr Luk was Associate Professor in Faculty of Management and Economics, Kunming University of Science and Technology, China.

Dr Luk's research focuses on ageing and healthcare financing reforms, telehealth, e-government and cybersecurity, public policy analysis, and China studies. She was a recipient of the 2012 Michael O'Rourke PhD Publication Award at the University of Birmingham. She was also the Highly Commended Award Winner of the 2013 Emerald/EFMD Outstanding Doctoral Research Awards in the Healthcare Management Category.

Dr Luk's recent publications include Health Insurance Reforms in Asia (2014, Abingdon, Oxon; New York, NY: Routledge), The Logic of Chinese Politics: Cores, Peripheries and Peaceful Rising (with Peter Preston) (2016, UK: Edward Elgar Publishing Ltd), and Financing Health Care in China: Towards Universal Health Insurance (2017, Abingdon, Oxon; New York, NY: Routledge).

Moderators of Plenary Sessions

Plenary Session I



Dr Ben Y. F. FONGSenior Lecturer, SPEED,
The Hong Kong Polytechnic University

Plenary Session II



Dr S. H. LIUPresident,
Hong Kong College of Health Service Executives (HKCHSE)

Plenary Session III



Professor Albert LEE
Professor (Clinical) of Jockey Club School of Public Health and
Primary Care, and Fellow of Wu Yee Sun College,
The Chinese University of Hong Kong

Plenary Session IV - International Experience



Professor Warren CHIU
Associate Dean, CPCE,
The Hong Kong Polytechnic University



Dr Jack LO
Director, SPEED,
The Hong Kong Polytechnic University

Chairs of Parallel Sessions

Session A: Policy and Management



Professor Hanqin QIU Professor, School of Hotel and Tourism Management, The Hong Kong Polytechnic University



Dr Artie W. NG
Principal Lecturer and
Deputy Director,
SPEED,
The Hong Kong
Polytechnic University

Session B: Quality Delivery



Professor Carine
MILCENT
Visiting Scholar,
SPEED,
The Hong Kong
Polytechnic University



Dr Simon T. Y. CHEUNG Lecturer, SPEED, The Hong Kong Polytechnic University

Session C: Creative Solutions with Knowledge and Technologies



Dr Adam K. L. WONG Senior Lecturer, SPEED, The Hong Kong Polytechnic University



Dr Tiffany C. H. LEUNG Lecturer, SPEED, The Hong Kong Polytechnic University

Session D: Technology and Innovation for Better Health Service



Dr S. H. LIU
President,
Hong Kong College of
Health Service
Executives (HKCHSE)



Ms Inez WU
Council Member,
Hong Kong College of
Health Service Executives
(HKCHSE)

Programme Rundown

| Time | Event |
|----------------------|---|
| 1:45 pm – | Registration |
| 2:00 pm | 2108.001.001.001 |
| 2:00 pm – 2:30 pm | Opening Ceremony |
| 2.30 pm | Welcoming Remarks |
| | Professor Peter P. YUEN |
| | (Dean, PolyU CPCE) |
| | Keynote Address |
| | Dr Chui Tak-yi (Under Secretary for Food and Health, Government of The HKSAR) |
| | (Onder Secretary for Pood and Heatin, Government of The HKSAK) |
| 2:30 pm – | Plenary Session I |
| 2:50 pm | Moderator: Dr Ben Y. F. FONG (Senior Lecturer, PolyU SPEED) |
| | The Manpower Challenge in Healthcare Industry, Dr the Honourable LAM Ching-choi, BBS, JP |
| 2:50 pm – | Plenary Session II |
| 3:10 pm | Moderator: Dr S. H. LIU (President, HKCHSE) |
| | |
| | Integrated Home Care and Inpatient Computer System for Hospice and Palliative |
| | Care, Dr Hubert CHAN, JP |
| 3:10 pm – | Tea Break |
| 3:25 pm | 200.2100 |
| 3:25 pm – | Plenary Session III |
| 3:45 pm | Moderator: Professor Albert LEE (Professor, CUHK) |
| | Making Tax-based Healthcare Systems Sustainable: The Way Forward for Hong Kong, Professor Peter P. YUEN |
| 3:45 pm – | Plenary Session IV – International Experience |
| 4:45 pm | Moderator: Professor Warren CHIU (Associate Dean, PolyU CPCE) |
| | 1. Manpower Challenges in the Health Industry in Face of Change, Dr Zhanming LIANG |
| | 2. Direct Economic Burden of Alzheimer's Disease Among Patients Covered by Health Insurance in Guangzhou, Dr Vivienne ZHANG, Yingying CHEN, Yixiang HUANG |
| | Moderator: Dr Jack LO (Director, PolyU SPEED) |
| | 3. Patient Empowerment in Times of Disease Branding – Where it Crumbles and What to Do, Dr Francesca QUATTRI |
| | 4. Aging in Place via Telehealth: The Case of Singapore, Dr Sabrina Ching-yuen LUK |

4:45 pm – 6:30 pm **Parallel Sessions**

Session A: Policy and Management

Chairs: Professor Hanqin QIU (Professor, School of Hotel & Tourism Management, PolyU) & Dr Artie W. NG (Principal Lecturer and Deputy Director, PolyU SPEED)

- (1) Tracing the Division of the Medical Profession to Public-private Imbalance in Hong Kong's Healthcare System (Dr Alex W. S. CHAN, PolyU SPEED)
- (2) Crisis Management in Health Sector A Case Study (**Dr Edmund T. M. WUT, PolyU SPEED**)
- (3) Health Programme Managemxuent in Scottish University in a Transdisciplinary World: A Case Study of Hong Kong (Yui-yip LAU, PolyU HKCC; Dicky Kin-lok KEUNG, PolyU)
- (4) An Application of Balanced Scorecard in the Private Elderly Home: A Case Study of Hong Kong (Yui-yip LAU, PolyU HKCC; Dicky Kin-lok KEUNG, PolyU)

Session B: Quality Delivery

Chairs: Professor Carine MILCENT (Visiting Scholar, PolyU SPEED) & Dr Simon T. Y. CHEUNG (Lecturer, PolyU SPEED)

- (1) Patient Centered Health Care and Patient Involvement (Kin-ping TSANG, Hong Kong Alliance for Rare Diseases)
- (2) Aligning Human Resource Management with the Value Creation Process (**Dr Florence H.** C. HO, PolyU SPEED)
- (3) A Late Coming and Prolonged Winter Surge: What Happened in 2016/17? (Dr Lok-hang LEUNG, Hospital Authority)
- (4) Review of Primary Health Care in Hong Kong (Frank Yat-chor CHU, May Chiu-yu HUI, Sukhpreet KAUR, Dicky Kin-hung LAM, David Tak-hoi LI, Charlie Shuk-ying SO, Kaelyn Kwai-lin WONG, Natalie Wing-huen WONG, PolyU SPEED)

Session C: Creative Solutions with Knowledge and Technologies

Chairs: **Dr Adam K. L. WONG** (Senior Lecturer, PolyU SPEED) & **Dr Tiffany C. H. LEUNG** (Lecturer, PolyU SPEED)

- (1) Intelligent e-Healthcare System for the Domestic Care Industry (Bennie S. F. WONG, Dr George T. S. HO, Professor Eric TSUI, PolyU)
- (2) Exploring the Use of "Plickers" as an Alternative in Health Education and Lifestyle Data Collection in the University (**Dr Adam K. L. WONG, PolyU SPEED**)
- (3) Ergonomic Brace A New Approach to Brace Design for Treating Adolescent Idiopathic Scoliosis (AIS) (Olivia Ho-yi FUNG, Dr Joanne YIP, Dr Kit-lun YICK, PolyU; Professor Kenneth Man-chee CHEUNG, Kenny Yat-hong KWAN, Dr Jason Pui-yin CHEUNG, Faculty of Medicine, HKU; Chi-yung TSE, Centre for Orthopaedic Surgery; Dr Zerance Sun-pui NG, PolyU HKCC)
- (4) iProHealth Prototype of a Health Promotion Website for Everyone Monitor Their Health Status and Receive Suggested Plans to Improve Health Issues (Russell John GAPASIN, Kalinda Ka-lok CHEUNG, Wendy Chu-wing FAN, Koey Chu-yuen LAM, PolyU SPEED)

Session D: Technology and Innovation for Better Health Service

Chairs: **Dr S. H. LIU** (President, HKCHSE) & Ms Inez WU (Council Member, HKCHSE)

- (1) Sharing on Simulation Training in HealthCare (Dr Wai-kwong POON, The Chinese University of Hong Kong)
- (2) Patient Empowerment with 360-Caring Care Planning Solution (Albert AU, Acesobee Limited)
- (3) Service Design for Healthcare: Innovations for Better Health Services (Dr Fowie NG, HKCHSE; Professor Graeme SMITH, Edinburgh Napier University; Dr Keith CHAU, PolvU)
- (4) Big Data Computing Platform for Hospital Information Systems (Dr Eddie K. L. LAW, The Open University of Hong Kong)
- (5) Supporting Manual Drug Picking Process with Medpicker* App (Sau-chu CHIANG, Anthony FAN, Hong Kong Pharmaceutical Care Foundation Limited)

PLENARY SESSIONS

Plenary Session I

The Manpower Challenge in Healthcare Industry

LAM Ching-choi, BBS, JP

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Abstract

In view of the ageing population in Hong Kong, the demand for healthcare services by the public has been increasing. Strategic planning based on healthcare manpower projections is needed to steer the sustainability and development of the healthcare industry. Consolidated efforts in restructuring healthcare training, recruitment and retention strategies and professional ladder as well as exploration of input of non-locally trained healthcare professionals are essential to steer the healthcare industry forward. Furthermore, healthcare professionals need to be equipped with the right skill sets to keep up with the new trends in the healthcare industry.

Plenary Session II

Integrated Home Care and Inpatient Computer System for Hospice and Palliative Care

CHAN Chung Yee Hubert, JP

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Abstract

SPHC recognizes that dying is a natural process of life and everyone deserves the best available end-of-life care that allow them to leave the world with dignity, reduced suffering and in a setting they so choose with the company of their beloved ones. Through a family-oriented approach, we seek to relieve the physical, emotional and psychological sufferings, enhance the quality of patients at the end stage of life while peacefully embracing uncertainties and change. This iPAHCs system is designed to support the holistic and compassionate care to the patients and the most important, the 24/7 professional back up to the family members. To facilitate transitional care between patients' home and hospice inpatient setting, the iPAHCs instant access of inter-disciplinary case record, timely appropriate services can be provided to very late stage seriously ill patients to improve their quality of life with family during the remaining days and time at home. Likewise, this also facilitates continuation of care when they are admitted back to hospice center. The significant features including the real time patient assessment data collected through the remote health devices in which alert signals could be generated through a cut-off line learned through the automated clusters' data, and with the healthcare professional assessment based on individual health conditions. This system also allows instant sharing of patients' clinical picture among different professionals, immediate responses can be provided regardless of the time and place, which is critical and essential especially in the last few weeks of home care before patients passed away. Through the tele-service, patients can contact their healthcare professionals through messages or face-to-face communication. This two-ways communications including data input from both patients and their family members which should be first of its kind in home health care settings. We are at the ideal stage to develop this cross-sectors electronic platform because we are the pioneer in the new integrated inter-disciplinary inpatient and home care services for end-of-life people. We believe we can generate much more important and meaningful data to inform our society that how to support our citizen to enjoy quality time with loved one during end-of-life.

Plenary Session III

Making Tax-based Healthcare Systems Sustainable: The Way Forward for Hong Kong

Peter P. YUEN

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

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Abstract

The study reviews major health care financing systems focusing on their sustainability in the context of population ageing. In view of the pay-as-you-go nature of tax-based systems, the author opines that having savings (either individual or collective) and improvement in efficiency (both allocative efficiency and X-efficiency) will be necessary to maintain quality and accessibility of care. Time series data are presented to evaluate the feasibility of implementing savings and improving efficiency. The analyses show that Hong Kong has the capacity to save and that the current structure of Hong Kong's health care system is too acute-centric, and the funding mechanism creates perverse incentives, implying that there is ample room for increased efficiency. The restructuring of some existing funding and administrative responsibilities of relevant public bodies and the establishment of an earmarked government healthcare future fund are suggested as the way forward.

Plenary Session IV – International Experience

Manpower Challenges in the Health Industry in Face of change Zhanming LIANG

Senior Lecturer, School of Psychology and Public Health, La Trobe University; President, the Society for Health Administration Programs in Education (SHAPE); Adjunct Professor, Naresuan University, Thailand; Fellow, Australian College of Health Service Managers

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Abstract

The sustainability of health systems in meeting growing healthcare demand has been challenged. As a result, healthcare systems have experienced significant transformations during the last two decades in order to improve accessibility, continuity, quality and efficiency of health service provision and equity in health outcomes. Health service managers are the key to ensuring the success of such transformation. Therefore, a critical question to answer becomes, "Are health service managers competent to provide leadership in implementing and managing the transformation?" Based on the competency assessment conducted on senior to middle level health service managers working in the Victorian healthcare system and the policy movement in Australia in the area of health workforce development, the presentation will address the above question and discuss the joint efforts required to improve the overall health service management workforce competence.

Direct Economic Burden of Alzheimer's Disease Among Patients Covered by Health Insurance in Guangzhou

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Abstract

Objective: To explore the direct economic burden of the patients with Alzheimer's Disease in Guangzhou, and to provide empirical evidences for government health departments to design health insurance policy and financial compensation for patients with Alzheimer's disease. Methods: Direct economic burden was calculated based upon two parts: the prevalence of Alzheimer's Disease, and real data on basic medical insurance of urban employees and urban residents in Guangzhou from 2011 to 2012. The direct medical cost with different factors was analyzed by nonparametric test. Results: The direct economic burden of patients with Alzheimer's Disease in Guangzhou was 7 323.54 million yuan in 2011 and 8 158.55 million yuan in 2012, respectively. Conclusion: The patients with Alzheimer's Disease in Guangzhou

had heavy direct economic burden. It is necessary to integrate different medical insurance schemes, explore new service delivery models, strengthen early prevention and diagnosis, and promote the development of long-term care insurance system.

<u>Keywords</u>: Alzheimer's Disease; direct economic burden; health insurance; long-term care insurance; Guangzhou

<u>Research Grants</u>: National Natural Science Foundation of China (71704194), Natural Science Foundation of Guangdong Province (2016A030313204)

Patient Empowerment in Times of Disease Branding – Where It Crumbles and What to Do

Francesca QUATTRI

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Abstract

With the advent of the Internet, the technologization of medical services and an increasingly better access to medical care in developed and developing countries, it looks like we have entered an era of participative medicine (Gardiner, 2008). Educated patients can access medical knowledge; self-monitor their well-being; question medical advice for comparison and request to become part of the cure instead of being cured. This cooperative treatment is radically changing the dynamics between healthcare providers and patients, leading to faster remedies, tailored treatments and informed patients' compliance, but it is far from perfect. In fact, the abundance of questionable medical information can quickly derail the good intentions behind this patients' empowering approach. More often than not, we fall into the trap of predatory advertisements aiming to sell disease instead of curing it. Disease mongering as a marketing strategy is commonly used "to try to convince well people that they are sick, or slightly sick people that they are very ill" (Payer, 1992). I am interested in exploring which conditions are mostly 'upgraded' to disease. The aim is to inform about typically exploited conditions in medicine and to inform the general public about their profit-oriented use. I, therefore, asked myself two questions: RQ1: What are these branded conditions? and RQ2: What steps have governments and private citizens taken and what steps can be taken to ensure access to transparent and reliable medical information? I ran a systematic literature review (Moher, Liberati, Tetzlaff, & Altman, 2010) of scientific publications on disease mongering (total original number of articles = 294; selected = 99; sources: Web of Science; PubMed NLM; OVID: Ovid MEDLINE®, Journals@OVID; Wiley Online Library; ScienceDirect) and inductively bootstrapped diseases advertised over the last +20 years (1994-2017). This systematic study offers quantitative support to previously

advanced anecdotal and selective case studies on disease mongering (Burgmer, Driesch, & Heuft, 2003; Moynihan, Heath, & Henry, 2002) and it shows a comprehensive overview of all the mental and physical conditions that have been mostly branded in the last twenty years. In light of the collected results, it provides current and possible guidelines for empowered, well-informed patients.

Aging in Place Via Telehealth: The Case Study of Singapore

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Abstract

Singapore is one of the world's most connected countries with an advanced information and communication infrastructure. It is well regarded as one of the regional and world leaders in e-government. Its journey of developing telehealth can be traced back to the late 1980s when the government introduced MediNet, which was an integrated computer network that linked hospitals, clinics, drug suppliers, and researchers with the Ministry of Health and other relevant government agencies. Over time, the government has introduced different telehealth programmes, including the Electronic Medical Record (EMR) System, National Electronic Health Record (NEHR) System, and online health portals. To further embrace the benefits of digital transformation, the government in 2014 launched the Smart Nation initiatives, with an aim to merge information technology into five key domains: transport, home and environment, business productivity, health and enabled ageing, and public sector services. In the aspect of health and enabled ageing, the government strongly advocates the use of telehealth to deliver home health, consultation, rehabilitation services, and chronic disease monitoring and management. It is anticipated that telehealth can improve the quality of healthcare to an ageing population, promote responsive care, bring convenience to the general public, especially the elderly and patients with mobility issues, and enable the elderly to age-in-place. One of the telehealth initiatives in Singapore is the Housing and Development Board (HDB)'s Smart Elderly Monitoring and Alert System (SEMAS). SEMAS is the use of motion sensor technology to track everyday activities of the elderly and alert caregivers when abnormalities are detected. It is part of the 'Smart HDB Town Framework', which mapped out how smart technologies could be introduced to create a more liveable, efficient and safe living environment for residents. Singapore faces the challenge of rapidly aging population. By 2030, one in four Singaporeans will be aged 65 years and older and the number of seniors living alone is projected to rise to 83,000. It is expected that the introduction of SEMAS can help seniors age-in-place and mitigate the shortage of healthcare workers and facilities. This paper examines the following questions: What is the development trajectory of telehealth in Singapore? What is SEMAS and how does it work? What is the implication of SEMAS for other countries?

PARALLEL SESSIONS

A. Policy and Management

A1. Tracing the Division of the Medical Profession to Public-private Imbalance in Hong Kong's Healthcare System

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Abstract

The existing literature about the medical profession assumes its unity. Hong Kong provides a case for exploring its division and the underlying causes. The sit-in protest of several hundred doctors and medical students in 2016, organized by the Hong Kong Medical Association (HKMA), against an amendment bill proposed by the government to reform the Medical Council of Hong Kong (MCHK), was the most dramatic confrontation of the medical profession with the government. But to the extent that Hong Kong's healthcare system is dominated by the medical profession, and almost all top positions, including the top government official in charge of healthcare policy, are occupied by medical doctors, the confrontation of the medical profession with the government revealed the division within the medical profession. Further study reveals the exclusion of the Hong Kong Medical Association (HKMA) from the Hospital Authority (HA), and its marginalization from the Health and Medical Development Advisory Committee (HMDAC). The exclusion of the HKMA is unusual because it used to have very close relationship with the government. The HKMA is the oldest as well as the biggest interest group representing the medical profession in Hong Kong. The official record of the HKMA showed that its relationship with the government was so close that the Governor of the Colonial Government of Hong Kong attended its annual dinner. Back in 1957 when the Medical Council of Hong Kong (MCHK) was formed as a legally sanctioned self-regulating body about the development of the medical profession, the HKMA was privileged by the government to come to a tacit arrangement, whereby its reserved membership in the new MCHK was to be three out of fourteen. During the reform of the MCHK in 1996, a significant number of seats were again formally reserved by the government for the representatives of the HKMA. However, the relationship between the Hong Kong Medical Association (HKMA) and the government deteriorated after 1997. Apparently, a major cause of the changing attitude of the HKMA is the issue about public-private imbalance. On the one hand, public doctors have suffered from very heavy workload in the public healthcare sector. On the other hand, the private sector has begun to face the problem of an oversupply of private doctors. Evidence suggests that the HKMA felt nervous about the implication of the reform of the Medical Council of Hong Kong (MCHK) to the issue of medical registration. The latter appears to be the single issue the Hong Kong Medical Association (HKMA) has been guarding jealously. The HKMA

worries that any change about medical registration will have further and adverse impact on public-private imbalance. The implication of the division of the medical profession is that the political collaboration between the profession and the government is likely to be jeopardized. In turn, this will cast doubt on the future of healthcare reform in Hong Kong.

Keywords: Division of the medical profession; public-private imbalance; medical registration

A2. Crisis Management in Health Sector – A Case Study

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Abstract

Crisis management is a hot topic on public organizations. This paper examines common mistakes when organizations facing the crises and suggests suitable response strategies which was illustrated by using a case study. Caritas Medical Centre is one of medical services providing by Caritas Hong Kong. According to their centre website, the centre is established in 1964 which is locating at Sham Shui Po. It is one of members in Kowloon West Cluster by Hospital Authority and serves 360,000 people in the northwestern part of Kowloon. The centre is an acute general hospital with 1,019 beds. The centre provides 24 hour accident and emergency services, full range of acute, extended care, ambulatory and community medical service (Caritas Hong Kong, 2017). On 20th December 2008, a 56-years old man, Yeung Tak Cheung, suffered from heart attack and then fell down during delivering the goods by a truck with his 36 years-old son. His son drove the truck to Caritas Medical Centre and parked outside the entrance of Wai Ming Block of Caritas Medical Centre. The son then asked for help of the staff in the lobby. However, the staff asked him to call 999 and rejected to provide help. After receiving the report, the Fire Service Department assigned Mong Kok Fire Station to send an ambulance out. Unfortunately, there was a traffic jam on the way. Another ambulance was then sent out to provide service. The victim was sent to the accident and emergency department after 26 minutes. The victim was died at last. This incident was arising public's attention. The public highly concern while people faces emergency nearby hospital, what is the most important for the hospital: follow the procedure or providing immediately emergency service? After this incident happened, Caritas Medical Centre had different response to the stakeholders in different timing. At first, they claimed that no one or any department had the responsibility to the incident as it is an unfortunate event. On the next day, Ma Hok Cheung, the Executive Director of Caritas Medical Centre, modified the previous remark and admitted that the action took was inconsistent to public expectations. Also, apology was given to public after asked by the reporter. However, he emphasized that the action the staff took was consist with the guidelines and worked hard enough. He added that the incident happened outside the hospital area which they did not have any guidelines for

staff to follow in this situation. Caritas Medical Centre Chief of Service of A&E Department Dr Ng Fu claimed that calling 999 was the best solution because transferring patient to the hospital was the responsibility of the Fire Department's ambulance. It is found that Caritas Medical Centre could have better alternatives when facing the crisis and various solutions are provided in the paper.

A3. Health Programme Management in Scottish University in a Transdisciplinary World: A Case Study of Hong Kong

Yui-yip Lau^{a b c}*, Dicky Kin-lok KEUNG^d

Abstract

Scottish higher education has established sound and comprehensive higher education systems in the world since the 20th century. Start from the 1990s, Scottish higher education has experienced underlying evolution and significant growth. Numerous popular Scottish universities collaborate with Hong Kong UGC-funded universities and private education centres (e.g. non-UGC-funded or self-finance) to deliver different Scottish higher education health programmes in Hong Kong. In the study, we will answer the key research questions on what are the main problems and challenges to Scottish higher education health programmes operating in Hong Kong? What are the critical successful factors of Scottish higher education health programmes operating in Hong Kong? How can the Scottish higher education enhance its competitive advantages comparing to Hong Kong's universities and private education centres? In the current situation, does the government provide enough support to the foreign universities for providing higher education in health programmes in Hong Kong? Furthermore, how can students identify that the international teaching enhances their learning experience and professional career development? Are the marketing branding concepts affecting the student's and parent's choice of selecting Scottish higher education in health programmes in Hong Kong? In a research design, we will conduct master degree programmes as case study. Academic and managerial implications in this study are also discussed.

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A4. An Application of Balanced Scorecard in the Private Elderly Home: A Case Study of Hong Kong

Yui-yip Lau^{a b c}*, Dicky Kin-lok KEUNG^d

Abstract

In Hong Kong, the existing population has almost accumulated at 7.4 million. The population is continuously increasing in the forthcoming years. By 2043, population in Hong Kong will be speculated to reach a peak of 8.22 million. An elderly home is a "must" for elderly to sustain their sound in body and mind. Basically, an elderly home is the place to give meals, personal care, accommodation and fundamental nursing and medical care to senior citizens. Currently, Hong Kong elderly homes are mainly operated by three core parties pertaining to private, public and non-profit making organizations. In the context of private elderly home, Hong Kong private elderly home not only encounters stiff competition with different competitors, but also deals with external forces from government regulations, technological advancement, empowered customer and socio-cultural. What are the evolutions of Hong Kong private elderly home from the past to now? To what extent and in what ways an exogenous force would foster Hong Kong private elderly home to change in an ever-changing environment? In order to assess Hong Kong private elderly home, Balanced Scorecard is employed in this study. Customer, internal operations, financial and continual learning and growth are the four key elements in Balanced Scorecard. Academic and managerial implications in this study are also discussed.

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B. Quality Delivery

B1. Patient Centered Health Care and Patient Involvement

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Abstract

The essence of patient-centred healthcare is that the healthcare system is designed and delivered to address the healthcare needs and preferences of patients so that healthcare is appropriate and cost-effective. Patients and their families are there throughout the patient journey and experience, and they see different things or things in a different way to those working in healthcare who just see brief snapshots of a patient's experience and situation. Patient groups bring knowledge of the patient experience from large groups of patient populations with the ability to identify common experiences, different experiences and evidence of trends, and articulate what quality and safety means to them and what balance of benefit versus risk would be acceptable to them. To achieve patient-centred healthcare we need an approach based on strong values of respect, partnerships and equity.

B2. Aligning Human Resource Management with the Value Creation Process

Dr Florence H. C. HO

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Abstract

Salaries and wages constitute 65 to 80% of the total operating budget in a typical health care organisation, it is imperative for a health care organisation to manage its human resources effectively. Proper management of human resources can contribute to providing quality health care. Notwithstanding the recognition that effective human resource management (HRM) is pivotal, current approaches in dealing with the problems of human resources tend to be reactive and ad hoc. Delivery of health care services is driven by control-based management rather than high commitment and high involvement work practices. The human resource management function in the health sector has unique characteristics. The workforce is large, diverse, and comprises many different occupations, like having sector-specific skills (e.g. doctors and nurses). Some professions are regulated by other professional bodies and have specific requirements for training and ways of working. Human resource management is concerned not only in securing a sufficient number of employees, but also in implementing

programmes that enhance communications, in encouraging discretionary efforts from employees, and continually fostering a higher level of satisfaction, commitment and motivation among employees. This paper is not intended to examine the links between human resource management and performance, since there is little research to measure how human resource management will impact on the performance of patient care. Performance measurement in health care organistions is not without its difficulties. Wall & Wood (2005) are of the view that "it is premature to assume that human resource management initiatives will inevitably result in performance gains," (p. 454). Furthermore, Hyde, Boaden, Cortvriend, Harris, Marchington, Pass, Sparrow & Sibbald (2006) observe that there are difficulties measuring human resource management and performance persistently, and drawing causal conclusions about the human resource management performance link due to the predominantly cross-sectional nature of the research design, namely, low task interdependence, high workflow uncertainty and the role of patient. Human resource management is a vital management function in the health care sector. A knee-jerk reaction toward the problem in human resources amply demonstrates the failure to encompass all the aspects of human resource management, and address the challenges with a long-term perspective. The objective of this paper is to examine the impact of progressive human resource management practices (including recruitment, mandatory training and further professional development, and effective supervisory leadership). Investment in developing and maintaining effective human resource management policy and practice can make significant positive contributions to the delivery of health care services. Attempts would be made to put forward practical proposals to move beyond the traditional approach of personnel administration, to foster a more proactive attitude among policy-makers, and to promote greater sense of engagement among employees.

<u>Keywords</u>: Human resource management; healthcare quality; workforce performance; employee engagement

B3. A Late Coming and Prolonged Winter Surge: What Happened in 2016/17?

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Abstract

Winter surge is a challenge to the HA service capacity. Its profile and characteristics could be studied so as to strategically plan the manpower appropriately e.g. to schedule GOPC Special Honorarium Scheme (SHS) at an anticipated surge period instead of the dip dates. In 2016, the winter surge is characterized by a late and prolonged surge. It was not uncommon for A&E to have over 6,000 attendances even over 7,000 till as late as March. The 2017 summer had also an unusually high A&E attendance. The details were studied in the project. Data

were retrieved from the "key statistics on service demand of A&E Departments" and the Hong Kong Observatory database for analysis. The average total A&E daily attendance was 6,226 during the 2016 winter surge period. The most drastic surge was observed on the CNY PH day 2 with a surge of total daily attendance from 5,860 to 7,613 (30% rise). The average number of daily attendance on Mondays (excluding the Lunar New Year PH) is 6,598, which is 6% more compared with the baseline average. The coldest day in 2/2016 had 8% dip of total attendance compared with a day prior. On the documented rainy days, the total daily attendance was 5,895, around 5% less compared with non-rainy day's total daily average attendance. From the findings, extra manpower allocation could be considered during the long public holiday and Mondays. Rainy days may be a factor leading to reduced attendance but it is not a reliably predictable factor in advance for duty planning purpose.

B4. Review of Primary Health Care in Hong Kong

Frank Yat-chor CHU, May Chiu-yu HUI, Sukhpreet KAUR^{*}, Dicky Kin-hung LAM, David Tak-hoi LI, Charlie Shuk-ying SO, Kaelyn Kwai-lin WONG, Natalie Wing-huen WONG

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Abstract

The healthcare system of Hong Kong, commended for its efficiency and cost-effectiveness, is now shifting its focus to Primary Health Care due to the changing demographic situation. With the low fertility rate over the years and the increasing longevity of people in Hong Kong, it is expected that population aged 65 or above will be as high as 30.2 percent by 2041. Primary health care, initiated by the government in 2008, offers a comprehensive and holistic service package to improve and strengthen primary care and health functions, highlighting the importance of assigning a long-term health partner so as to make better use of healthcare resources and to enhance quality of care. The reform consultation document, Your Health, Your Life and Building a Healthy Tomorrow, introduces a basic model in which a system is established to register medical professionals, provide subsidies and improve primary care. For this, the government has put great effort in interdepartmental and cross-sectoral collaboration with different departments so as to offer professional, high quality and timely services. The inter-sectoral collaboration can place emphasis on person-centered care and patient empowerment with input of professionals' expertise and experience, proving beneficial to both parties, doctors and service users, as a result. Primary healthcare adopts an integrative approach involving professionals to deliver a wide range of services comprising of health promotion, prevention of, treatment and care for acute and chronic diseases, health risk assessment and disease identification, self-management support, and supportive care for end-stage diseases or disabilities (The Primary Care Directory, 2010). Despite the progression over time, the services face the challenges of being inadequate. The e-platform fails to allow

the citizens to select their preferred location for regular check-ups. Moreover, it does not provide much assistance to the elderly, the first and prime target group of Primary Health Care, due to lack of computer literacy. To tackle these issues, Primary Care Directory and Elderly Health Care Voucher Scheme, are implemented to provide guidance to users with the latter serving as a financial assistance and incentive to the needy aged 70 or above in addition to the promotion of the service through different channels. Primary care requires time to fully establish to the extent whereby the services are with the easy reach of everyone in the community.

C. Creative Solutions with Knowledge and Technologies

C1. Intelligent e-Healthcare System for the Domestic Care Industry

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Abstract

The demand of the domestic healthcare services was increasing as the promising trend of the ageing population in Hong Kong. Due to the increasing mortality rate, the need of the home care services soars. Taking Hong Kong as an example, the proportion of the population aged 65 and over is projected to rise markedly from 15% in 2014 to 33% in 2064. In the past years, government had spent billions of dollars on elderly homes and elderly community care services in order to expand the subsidized organization to meet the rising demand. To improve the quality and efficiency of the elderly healthcare services, one can consider implementing e-Healthcare (eHealth) system to support the daily operations. The major advantages of the e-Healthcare system implementation are to facilitate faster and accurate access to the patient's health records as well as to provide faster response of patient's health status detection and prediction. Upon the deployment of the eHealth system to handle the elderly home care service provisions, it is expected that the caregivers can leverage the system to monitor closely various vital signs and healthy status of the elders to keep track their health conditions. This paper explored the feasibility of the development of e-health application by using the Internet of Things (IoT) technology. Through the data mining processes of the collected regular measurements and observations, it proved that there are interesting relationships between the selected data attributes in elderly health status monitoring. Certainly, the caregivers can use the discovered knowledge for proactive decision support of healthcare services and to improve the overall service quality by enhancing the elderly healthcare service responsiveness. Apart from the technical development, although it is well known that eHealth has been proven to effectively improve the quality of services in the health sector, there are still barriers in adopting the technology in healthcare organizations. To verify the user acceptance of the use of eHealth, the paper also presented the findings of the critical factors of eHealth system adoption from the perspective of nursing staff across the framework healthcare organizations based the of the on Technology-Organization-Environment (TOE) model. The result of the findings suggests that the factors Compatibility (CA), Management Support (MS) have positive impacts on eHealth adoption while the Relative Advantages (RA), Technical Competence (TC), Critical Mass (CM) and Information Intensity (II) show no positive influence on eHealth adoption.

C2. Exploring the Use of "Plickers" as an Alternative in Health Education and Lifestyle Data Collection in the University

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Abstract

According to a recent survey by The Department of Health (DH), the general health condition of the HK population has deteriorated when compared with the last survey. The DH considers educating the youth is one of important measures to deal with the problem. In order to educate students about following a healthy lifestyle, schools must have an accurate assessment of the unhealthy lifestyle of its students such as drinking of alcohol, smoking and lack of physical activities. The key to accomplish this is to conduct anonymous surveys so that students will provide true answers. Paper surveys can accomplish this, but re-entering the data is both costly and error-prone. Online survey is technically possible, but it usually results in low response rates. This is exemplified by the low response rate in doing mobile-phone based student surveys at the university in which in the author is teaching. This article reports an attempt to use Plickers as an alternative to traditional paper surveys and online surveys. This article also discusses the effectiveness of combining surveying and educating the students at the same time. Plickers is a paper-based student response system (SRS) that uses AR (Augmented Reality) technology. To use this technology, only the teacher needs to have access to a computer and a mobile phone or tablet. The technology has been used effectively for primary or secondary schools to get responses from students in an environment in which mobile phones or computers are not accessible for feasibility or classroom management reasons. This article reports an exploratory study of using Plickers at the university level to collect student data about their health-related lifestyle. The incentive to the students to completing the survey was the students with the higher scores could choose the order of their group project presentations in the subject. In this study, there were four parts. In Part One, the students were asked questions on their lifestyle regarding habits in physical activities, drinking and smoking. In Part Two, photos and infographics of health issues related to these habits were shown and explained. In Part Three, the students were asked the questions about the information from the photos and infographics. Finally, in Part Four, the students were asked about their intention to change the habits. It was found that Plickers is an effective tool to collect the survey and encourage students to stay focused during the delivery of health education materials. Due to the limitation in sample size, it is suggested further similar studies be done.

C3. Ergonomic Brace - A New Approach to Brace Design for Treating Adolescent Idiopathic Scoliosis (AIS)

Olivia Ho-yi FUNG^a, Joanne YIP ^{a*}, Kit-lun YICK^a, Kenneth Man-chee CHEUNG ^b, Kenny Yat-Hong KWAN ^b, Jason Pui-Yin CHEUNG ^b, Chi-Yung TSE ^c, Zerance Sun-pui NG ^d

Abstract

Idiopathic scoliosis is the most common form of three-dimensional spinal deformity. It occurs mainly in adolescents, from the age of 10 onwards until they reach skeletal maturity, and that is called, "Adolescent Idiopathic Scoliosis" (AIS) in general. Trunk surface deformities, resulting from the progression of spinal curves during growth, are rib hump, uneven shoulders and asymmetrical waist. Often, these have negative impacts on adolescents, in terms of their quality of life (QoL) and psychological well-being. Bracing, in general, is used as a non-surgical means to halt the progression of AIS. Bracing, with the application of external mechanical forces, can restore alignment of the spine and body contour. Braces, which uphold different principal of corrections, can mainly be divided into two main categories as hard brace and soft brace. However, the choice of brace type for treating AIS remains controversial. Hard braces, for instance the Chêneau brace and the Boston brace, are considered effective in the prevention of curve progression during growth, but their negative impacts on the QoL and psychological being of patients are concerned. Though soft brace has addressed the shortcomings of hard brace, its efficacy is polarized in different papers. This study addresses the purpose of the Ergonomic brace development, which is to explore the equal importance of the effectiveness in hard brace and the compliance in soft brace to the outcome of brace treatment. A design that combines both hard and soft elements in one brace is thus proposed, and "mass customization" is an additional concept included to reduce the lead-time required for fabricating a conventional brace, so prompt delivery of treatment becomes feasible. Benefits from bracing increase with longer hours of brace wear. Therefore, one of the design approaches is to enhance the brace comfort for a better compliance in return. The Ergonomic brace is designed with a soft tight-fitting base that is constructed with the seamless knitting technology. It allows net structures to be created in different parts of the brace for breathability, and the use of cool-to-touch yarn and deodorant yarn helps stay the brace dry and refresh, especially during summer. The optimal correction of the spine is very much dependent on the brace mechanism and the principals behind. Even with improvements in the QoL, a soft brace, presented by Coillard, had shown to be less effective than hard brace due to its failure to correct the sagittal profile. In view of this, the Ergonomic brace has put frontal and sagittal plane corrections into the design considerations, with bones, rigid padding,

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pelvic belt and straps as the auxiliaries. Strap tension and treatment outcomes are regarded as highly correlated. Therefore, adequate corrective forces should be applied to ensure the success of the brace treatment. In the Ergonomic brace, straps are tightened with the dials, where increment can be made precisely with the prescribed amount of tension. Not only the adjustment is easy to implement with one hand, but the right amount of corrective forces can be ensured. Braces are custom-made, as the spinal curvature varies with patients. The conventional plaster-cast method for hard brace requires a long production lead-time before the AIS patients could receive treatment. With the mass customization concept of the Ergonomic brace, thermo-adhesive films can be used to customize the positions of the pads and straps in accordance to the curve types in real time, so the AIS patients can receive treatment once diagnosed. The aim of the Ergonomic brace is to ensure the efficacy of treatment without harming the QoL of patients and, at the same time, shorten the lead-time to treatment. The viability of these design concepts are going to be tested with prototypes in the next stage of the study.

C4. iProHealth - Prototype of a Health Promotion Website for Everyone Monitor Their Health Status and Receive Suggested Plans to Improve Health Issues

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Abstract

A website for an organization called "iProHealth". iProHealth is the world's first digital product designed for health organizations to provide a platform for patients; they can monitor their health status easily. iProHealth provides the tools needed to build efficiency and measurement into the delivery of care, and an opportunity to mitigate the high costs of uncontrolled diseases. The website aims to promote digital medicine and provide a login platform for users to check up on their health status. It also provides suggested plans to improve on their health issues. This report discusses on the special features of the website, the difficulties faced and solutions to solve them. The website has a responsive feature meaning that its design can cater to different devices with different screen sizes; it can be viewed on the computer and the mobile while keeping a consistent design suitable for its screen size. The website provides Q&A session to answer the common issue when using our website. To care about what health problems visitors are facing, a "Health care" page was designed to provide solution or suggestion on which product that suitable for them. The website also features an iProHealth Buddy for users to be a member in the organization. iProHealth Buddy will show health record, such as, activity tracking, weight tracking, weight tracking. Moreover, it will show achievements, a list of successfully completed and on-going

challenges, thus give suggested training plan. Some difficulties were encountered and some solutions were found as follows: (1) Display error on iPad & Macbook (cross-platform) - The preference of our website is already set to be a responsive website which means the website has a consistent design on all types of devices such as computers, tablets and smartphones. Although the website has the responsive feature on computers and smartphone, there are still some errors in the design layout in tablets. There is a difficulty in adjusting this design as on the browser, the responsive feature works on all different sizes but it just does not work on the tablet. (2) Conflict with different JQuery file - Duplication in the JQuery id names causes error which makes the code to not function. This was a difficulty as it was a logical error that was hard to find it the beginning. (3) Conflict with several CSS files & remain consistent layout design - As everyone has their own style in writing code, there occurs a conflict in the CSS or HTML design and it causes inconsistency in the layout design. In order to have consistent layout design, we use an external style sheet to make the entire website more consistent.

D. Technology and Innovation for Better Health Service

D1. Sharing on Simulation Training in Healthcare

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Abstract

Objective structured clinical examination (OSCE) is designed to test clinical skill performance and competence in skills for health care students and is a hands-on, real-world approach to learning that keeps examinees engaged, allows to understand the key factors that drive the healthcare decision-making process, and challenges the professional to be innovative and reveals their errors in case-handling and provides an open space for improved decision-making, based on evidence-based practice for real-world responsibilities. Simulation has a well-known history in the aviation industry. It is also a recommended teaching and learning strategy other than the OSCE methodology; usually implies an imitation of a real-life process, usually via a computer or other technological device, in order to provide a lifelike experience. This has proven to be a reliable and successful method of training in thousands of industries worldwide. They can be used both to allow specialization in a certain area, and to educate individuals in the workings of the sectors as a whole, making training simulations versatile. Training simulations are not just games; their aim is to educate and inform in an exciting and memorable way, rather than purely to entertain. Although in the past 20 years simulation has become more integrated into the health care professional education of nurses and physicians, it has not been as well integrated into the development of skills for practicing nurses. Although there is not a common simulation framework, most simulations follow a similar design. There is usually some pre-work, or preparation learning, by the participant before the simulation. This is followed by the implementation of the simulation, which is subsequently followed by a debriefing session. Debriefings are generally conducted as a reflective learning experience in which participants review their performance in the simulation and the facilitator provides additional feedback. Despite recommendations for using simulation and growing integration of simulation into education, we still lack empirical evidence of its impact on patient outcomes except with the high overhead costs of the related hardware purchase. Discussion would be made and review of the current uses of simulation in the health care practice environment and its modification.

D2. Patient Empowerment with 360-Caring Care Planning Solution

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Abstract

"Health is Wealth" is a common and famous saying. However, when we come to digital solution, we find there are tons of APPs on ebanking, eWallet, portfolio management, etc. We hardly find iconic APPs which help and support for care receivers as well as care givers. The difficulties in healthcare information access, especially the caring and nursing information, will hinder the care receivers and care givers to self manage. In order to promote ageing in place and self long-term care management, a team based support and patient centric APP is required to facilitate the 360-degree caring which means the caring provides by multi-discipline / professional, families and even individual care receivers. Historically, healthcare informatics solutions are designed from institutional perspectives and functional perspectives (i.e. Laboratory System for Laboratory Reporting, Clinic Management System for Consultation, etc.). These systems fulfill the hospital or clinic administration but they cannot address the caring needs to the care-givers / care-receivers directly and easily. In addition, the latest technologies provide more effective detection / screening at home or remotely (i.e. Wearable ECG device, sleep apnea sensor), it is important that the caring management should be extended and covered in the out-patient, community, nursing home and home care settings. This presentation shares the challenges and experience in community eHealth / APP solution implementation and adoption from stakeholder acceptance, change management and system design through our projects implemented in mobile clinic, nursing station and home care setting.

D3. Service Design for Healthcare: Innovations for Better Health Services

Fowie NG^a*, Graeme SMITH^b, Keith CHAU^c

Abstract

Healthcare organizations are in the business of providing health related services to members of society, however how can professional health services be truly effective and innovative if they are not designed together with people. The concept of service design has been widely adopted in major European cities in both private and public sectors. However, service design

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is a relatively new concept to the professional service community in Hong Kong. It is clear that healthcare systems need to excel on technical, economical, human and societal aspects, including service delivery. Service design is a practice that contributes to the delivery of great user experience; often professionals in a system do not fully appreciate the power of good customer service and satisfaction. Globally, service design is becoming a high-profile skill in industries, such as healthcare, enhancing the user experience with better technology and design. In the United Kingdom, it has already made a big impact, operating at a vantage point within healthcare organizations to create better services for stakeholders. These experiences of the service design projects in healthcare are highlighted in an attempt to groom and nurture Hong Kong's health service to further enhance professional services in healthcare in the region.

D4. Big Data Computing Platform for Hospital Information Systems

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Abstract

A typical Hospital Information System (HIS) is designed to interconnect and communicate among different departments within a hospital. The functional roles of these departments are quite different in fact. There are departments that carry out in-patient and out-patient registrations, laboratory testing and reporting, pharmaceutical drug dispensary, payrolls and payment etc. To carry out all these functionalities under one information system, they rely on the Health Level 7 (HL7) communication protocols for them to operate properly. As of today, the complexity of HIS is growing rapidly with time indeed. With the advancement in technology and the arrivals of healthcare informatics and bioinformatics, the HIS evolves from a typical management system into establishing intelligent community servicing systems among hospitals and different healthcare institutes. Apart from logging health information records of patients, through data analysis, drug treatment and discovery can also be performed throughout the recorded data among a HIS community system. As of today, we have already arrived at a stage that personal health informatics can also be easily extracted into any hospital systems, and for any medical doctor to have expedited and accurate treatments and early health warning alarms. Personal mobile devices today may be equipped with advanced health monitoring services. Some smart watches can monitor atrial fibrillation, a chaotic, out-of-sync heartbeat that can damage the heart and allow blood clots to form that travel to the brain, where they can lead to strokes. Nowadays, with this large amount and wide variety of information, we need a Big Data computing system to store, treat and coalesce health information whether it is a person's personal health record and information, or it is a devised ensemble data of a group of people with similar medical background or genetically heritage. In order to facilitate or create a Big Data computing system for an HIS,

we propose to take advantage of the Apache software projects which include the Apache Hadoop, Spark, Apex, Kafka, and HBase on creating a foundation Big Data operating platform. And different sets of medical-related standards should be implement on the platform to make HIS work. There are Health Level 7 versions 2, 3 and FHIR for communications and electronic health record tracking. Different departments use different widely accepted international standards. For example, the DICOM is for X-ray imaging, and the PACS is for picture archiving and communications. It is important and desirable to create a successful integration of different medical standards onto the proposed Apache-based Big Data computing system. Moreover, due to the advancement in machine learning on bioinformatics, any healthcare data saved in a HIS can be fetched for medical researchers to carry out advanced deep learning algorithms on investigating novel methods in discovering and curing diseases.

D5. Supporting Manual Drug Picking Process with Medpicker* App

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Abstract

The relentlessly growing demands brought by an ageing population in Hong Kong have set the sustainability of conventional pharmacy service operating models in question. In particular, common medication-related issues amongst the elderly population, such as concurrent use of multiple of medications and poor drug compliances, are also anticipated to soar alongside the imminent demographic challenge. Over the recent decades, development of an integrated healthcare infrastructure has been placed under the spotlight in response to the situation. This emphasizes interoperability and patient empowerment embraced by modern digital health deployments and ambulatory services as key levers of a long-term solution. In advocacy to the aforementioned, the Hong Kong Pharmaceutical Care Foundation (HKPCF) developed the SafeMed Medication Management System (SMMS) in 2016 to bring the new paradigm of digitalised pharmacy practices in play for Residential Care Homes for the Elderly (RCHE) across Hong Kong. By integrating with the Automatic Tablet Dispensing & Packaging System (ATDPS), this real-time system that dually maintains medication profiles of RHCE residents and comprehensive drug database has successfully converted personalised drug dispensing processes in digital practice. The adoption of ATDPS is yet far from the mainstay of many nowadays pharmacy operations, as labour intensive and manual drug dispensing practices still dominates amongst RHCE dispensaries. In light of this, HKPCF continued to promote efficient drug picking practices in RHCE upon leveraging SMMS. This led to recent creation of the novel mobile application tool, known as Medpicker. By data synchronisation, the Medpicker translates SMMS content into interactive visuals and touchscreen mechanics to navigate hand-operated medication picking and assembly with

accuracy pinpointed to the level of individual patient profiles and/or scheduled treatment administration timeslots. In order to complement its Visiting Pharmacist Services (VPS) and further espouse patient empowerment, HKPCF is currently looking forward to assimilating currently marketed electronic medication aids to SMMS. Meanwhile, this shall convey huge potentials to expand functionalities of the existing interoperable personalised medication management platform. Examples of such are currently studied by HKPCF include personalised drug administration reminders for patients and remote drug adherence monitoring interfaces that are restrictedly shareable amongst caregivers of patients. Moreover, developments of the Electronic Health Record Sharing System (eHRSS) hailed by increasing healthcare public-private partnerships entail many future opportunities for digitalisation of pharmacy services. Current and future initiatives likewise to endeavours of HKPCF shall play a key role in driving contemporary health technology advancement in Hong Kong.

<u>Keywords</u>: Drug dispensing; drug picking; digitalised medication management

POSTER PRESENTATIONS

P1. Analysis of Voluntary Health Insurance Scheme in Hong Kong

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Abstract

The health care system in Hong Kong is considerably efficient and well-developed as the integration of public and private healthcare systems provides widespread choices of services for Hong Kong citizens. However, the Hong Kong Government has heavily subsidized the public healthcare sector that leads the services in the public system to an overloaded level. Besides, the prices of private healthcare services are higher than the public sector. Other than that, there is a long-term consideration that aging population would lead to a growth of demand for all health care services. Moreover, the medical cost is increasing sharply so this results in the unusual large expenditures of the Government. Therefore, the Voluntary Health Insurance Scheme (VHIS) is proposed for addressing these challenges. The primary goals of the VHIS are illustrated for knowing the intended outputs of the policy. Besides, the pros and cons of the VHIS are assessed for the understanding of the further improvements. Furthermore, the standpoints of different stakeholders are engaged for summarization of the interests and conflicts among the community. VHIS contains the elements of the planning of health human resources and expert development, building up the supervisory framework, and enhancing the development of healthcare service. The pros of VHIS is to strengthen the guarantee of consumers, reduce the financial burden of public health care system. However, it might lead to health inequity and financial unsustainability. The government, private healthcare sectors, insurance companies, and the public are the stakeholders included. VHIS policy leads to both the advantages and disadvantages in respect of various stakeholders. The Government is supportive of the VHIS; for the private healthcare sectors, they would be supported if there will be interests; for the insurance company, since the disadvantages are greater than their advantages, they tend to disagree the VHIS policy; for the citizen, they have also show disagreement as the scheme is rather unclear and they would still prefer to use the public health care services.

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Poster P1 by Kurtis C. Y. WONG and Agnes S. Y. WONG:





COLLEGE OF PROFESSIONAL AND CONTINUING EDUCATION 專業及持續教育學院



Analysis of Voluntary Health Insurance Scheme (VHIS) in Hong Kong

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- Introduction: The health care system in Hong Kong is well-developed.
 However, the Hong Kong Government has heavily subsidized the public services. This leads to the overloaded services in the public sector.
 Besides, aging population would result in a growth of demand for all health care services. Moreover, the medical cost is increasing sharply.
 Therefore, the Voluntary Health Insurance Scheme (VHIS) is proposed for addressing these challenges.
- Objectives: To illustrate the goals of the VHIS for knowing the intended outputs of the policy, to assess the pros and cons of the VHIS for making further improvements, to grasp the standpoints of different stakeholders for summarizing the interests and conflicts among the community.
- Analysis: The pros of VHIS is to strengthen the guarantee of consumers, reduce the financial burden of public health care system. However, it might lead to health inequity and financial unsustainability. The government, private healthcare sectors, insurance companies, and the public are the stakeholders included.
- Conclusion: VHIS policy leads to both the advantages and disadvantages in respect of various stakeholders. The Government is supportive of the VHIS; for the private healthcare sectors, they would be supported if there will be interests; for the insurance company, since the disadvantages are greater than their advantages, they tend to disagree the VHIS policy; for the citizen, they have also shown disagreement for the unclear scheme and the preference of using the public health care services





P2. A Review on the Happiness Level of Students of Higher Education in Hong Kong

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Abstract

Measuring mental health is one of the indication of happiness level. University is a cradle for youths to nurture their future for the society, but it turns to be a venue for mental health problems and even suicidal thoughts among students in Hong Kong. People with higher health literacy are more likely to be happier and healthier. Enhancing the awareness of their psychological status is thus suggested and different studies have been conducted on the situation in the past decade. However, mental issues concerning students are becoming more common and more severe. This review is going to find out the unfound reasons to explain the inherent association of mental health and health literacy. Other external factors like the current educational systems and social response may contribute to the inherent association. In order to improve the reputation and ranking of university, students' academic achievements are one of the main indicators. Academic achievement-oriented value and intensive competitions among universities and students are highlighted. Students are thus involved in more and more academic works, thus influencing their daily life consequently and adversely. With such core value and workload, the moral value of students may be changed. Learning with tense competitions and being overwhelmed by the academic achievement, students may find it hard to develop healthy interpersonal relationships and to maintain good mental health. In addition, academic competition adversely influences the student's interpersonal relationship in various degrees. On the other hand, it is well-known that the social network plays a significant impact on young population. Nowadays, it is much easier to build a social relationship in university via different channels like online social platforms to meet friends in everywhere, as well as the supportive programs in schools, but a lack of social support is regularly reported. Therefore, evaluating the quality of the social circle built on these social platforms is included in the review because good relationships can attribute to an induction of happiness. The higher level of support that a student receives from people around, the happier university life a student obtains. The balance of university achievement and students' happiness should be strived. Recommendations to re-articulating university values like revising the quality assurance of educational systems continuously and introducing reaching-out supportive programs like web-based screening are suggested.

Poster P2 by Elsa K. Y. CHAN:



COLLEGE OF PROFESSIONAL AND CONTINUING EDUCATION 專業及持續教育學院

A review on the happiness level of students of higher education in Hong Kong



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· Current Challenge

 People with higher health literacy are more likely to be happier and healthier. Enhancing the awareness of their psychological status is thus suggested and different studies have been conducted on the situation in the past decade. However, mental issues concerning students are becoming more common and more severe.



Purpose of this Review

 This review is going to find out the unfound reasons to explain the inherent association of mental health and health literacy.

1st Reason - Academic Achievement-Oriented Value

Academic achievement-oriented value and intensive competitions among universities and students are highlighted. Learning with tense competitions and being overwhelmed by the academic achievement. Academic competition adversely influences the student's interpersonal relationship in various degree, students may find it hard to develop healthy interpersonal relationship and mental health.

2nd Reason - Quality of Social Network

 Social network plays a significant impact on young population. The higher level of support that a student receives from people around, the happier university life a student obtains. Nowadays, it is easier to build a social relationship in university via different channels like online social platforms, as well as the supportive programs in schools, but a lack of social support is regularly reported. Therefore, evaluating the quality of the social circle built on these social platform is highlighted.

Suggestions

 The balance of university achievement and students' happiness should be strived. Recommendations to re-articulating university values like revising the quality assurance of educational systems continuously and introducing reaching-out supportive programs like web-based screening are suggested.



P3. Improvement of the Condition of "Picky Eating" among Hong Kong Children

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Abstract

"Picky eating" is a common behaviour among Hong Kong children. It may be caused by the unhealthy eating habits during childhood, children's impressions on foods and bad parental education. Children who are "picky eaters" may have different kinds of healthy problems such as obesity, malnutrition and poor immunity. Seriously, it may cause poor growth development among these children. Therefore, the behaviour of "picky eating" should be avoided. The Health Belief Model (HBM) is used to analyze the causes of changing behaviour of "picky eating" difficultly among children. The most common reason that children cannot improve this unhealthy condition is poor knowledge. Since children are still young, they do not understand clearly about the importance of healthy eating. Therefore, education is important component in improving the unhealthy behaviour among children. Then, the Transtheoretical Model (TTM) is used to describe that how children can change the behaviour of "picky eating". The most important step is to build up an action plan. The children can then improve the behaviour of "picky eating" step by step. In Japan, the government has implemented the School Lunch Programme, which aims at promoting food and nutrition education among students. On the other hand, Europe has a Food and Nutrition Policy for Schools. The policy aims at changing the eating environment of the children in order to promote healthy eating. The Hong Kong government can consider and adopt the practices in Japan and Europe. Besides, schools, parents and media should be responsible for promoting healthy eating among children. The process of improving the behaviour of "picky eating" should be carried out step by step. Education, setting up policy, changing the lunchboxes and promotion of healthy eating are useful for improving the behaviour of "picky eating" among children.

Poster P3 by Jessy Wing-yee NG:



COLLEGE OF PROFESSIONAL AND CONTINUING EDUCATION 專業及持續教育學院

Improvement of the Condition of "Picky Eating" among Hong Kong Children

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Causes of "Picky Eating"

- Unhealthy eating habits during childhood
- · Children's bad impressions on food
- Poor parental education

Consequences of "Picky Eating"

- Obesity
- Malnutrition
- Poor immunity

Promotions of Healthy Eating

Schools

- Changes of the types of lunchbox
- Longer duration of lunchtime

Parents

- Cook healthy diets
- Encouragements
- Education

Government

- Strengthen supervision during lunchtime
- Addition of food and nutrition education

Students Healthy Eating Scheme

Re-arrangement of School Lunch

- Longer duration of lunchtime
- Supervision during lunchtime
- Changes of lunchbox
 - Appearance, taste, texture of food

Planting Scheme

Hydroponics

Home Economics Lessons

- Cooking snacks
- Food and nutrition education



P4. The promotion of Health Strategies to Prevent Insomnia in Hong Kong

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Abstract

Sleep is a naturally recurring state that is significant and crucial factor for physical development and mental health. However, it often neglected by many people, especially in developed countries. During the past few years, higher percentage of people who suffered the sleeping disorder in every single day has been found from the whole world and Hong Kong is not an exception. There have lots of citizens affected by the sleeping disorder and the problem of sleeplessness has become a common complaint nowadays. Besides, the trend of sleeplessness in youth will be predicted and the problem will be worsening further. It buries a fuse and the bomb will be detonated in the future that can produce a devastating problem for health. Based on many studies, the risk factors of being sleeplessness can be classified as three aspects in terms of mental like emotion of stress, physical like chronic disease and behavioral like lifestyles. Whatever to be sleeplessness by any factors, patients will have different health problems caused by sleeplessness. The consequences aroused by health problems can affect severely to patients either in physical or mental health. To relieve the situation of sleeplessness and solve it thoroughly, prevention combined with appropriate treatments is sufficient because they are less harmful for patient and the root of sleeplessness can be resolved. There have three levels of prevention which are bear their responsibilities on different positions. The treatments are also being separated as three aspects like non-medical based, medication and alternative. It seems that medication should be a most common treatment dealing with sleeplessness around the world. In fact, medication is not effective than prevention and non-medical treatment for treating sleeplessness compared by many authorities. Government and medical professionals should put more efforts in prevention and non-medical based promotion, which can more focus on the source of sleeplessness and improve it precisely with fewer side effects at the same time. To solve the problem of insomnia in Hong Kong, efforts should be placed on primary prevention in changing lifestyle and activity habits. A better prevention is meaningful and valuable than any regimens for everyone.

Poster P4 by Alex Ho-yin LAU:



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The promotion of health strategies to prevent insomnia in Hong Kong

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What is Insomnia?

- A most common sleeping disorder
- 3 types of Insomnía:
 - Initial
 Insomnia
 - Interrupted
 Insomnía
 - Early
 Insomnía



Risk Factors

Insomnía can be caused by:

- Mental health aspects like stress disorder, anxiety, etc.
- Physical aspects such as suffer from chronic disease as Hypertension.
- Behavioral aspects as vigorous exercising, using electronic devices before sleeping.





Sign & Symptoms

- Signs of being Insomnia:
 - Trouble in sleeping;
 - Wake up too early
 - During the night inadvertently
- Symptoms of being Insomnia
 - Daytime sleepiness
 - 2. Irritability, etc.

Level of Prevention

- · Primary Prevention
 - Ävoid stimulants including caffeine.
 - 2. Remove electronic devices
 - 3. Limit the number of drinks before sleeping
- Secondary Prevention
 - 1. Screening and early detection
- Tertiary Prevention
 - Follow the daily timetable for rehabilitation
- Prevention is better than cure!!!

How the government and individuals can do?

- The government should:
 - Provide treatments as nonmedication and medication (CBT-I or sleeping pill)
 - 2. Reinforce the concept of sleeping quality via media
- Everyone should:
 - Seeking consultation by healthcare professionals
 - Changing the daily lifestyles



Have a best quality of sleep; Enjoy your high quality of life!

Centre for Health Protection. (2013, April). NCD Watch April 2013 – Sleep: A Basic Health Necessity. Retrieved October 23, 2017, retrieved from http://www.chp.gov.hk/en/epidemiology/134/283/616.html

P5. Will the SunWise School Program Prevent Skin Cancer?

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Abstract

Two types of skin cancers, non-melanoma skin cancers (NMSC) and melanoma skin cancers are commonly known. According to The Hong Kong Anti-Cancer Society, NMSC has been ranked on the list among the top ten leading causes of cancer. Intrinsic factors and variable factors are contributing to skin cancers, for instance, gender, age, and lifestyle. Finding out the causes of skin cancer can help to carry out effective action to solve this serious disease. There are three levels of prevention. In primary prevention, protective measures are necessary under the exposure to sunlight, and information can be obtained from the anti-cancer institution. In secondary prevention, screening activity is required to detect early skin cancer in order to treat the disease early. Skin examination can help to check the degree of damage. Legal skin cancer screenings are introduced with the insurable funds of health. In tertiary prevention, follow-up measures can reduce the chance of subsequent tumors in order to avoid the advancement of cancers and complications. Health education in skin cancer is effective because it can increase the awareness and nurture positives attitudes. Thus the United States Environmental Protection Agency (EPA) launches the SunWise School Programme to carry out sun-safe behaviour with the aim to develop health potential in a maximum level. Students can control their health in a supportive environment. People should have health check regularly to maintain health. Health professionals assist the public to develop health awareness and encourage them to pursue health. Public awareness depends on health belief models, which promote sustainability. Community groups are responsible for contact with the individuals directly. Workshops should be set up with health professionals for the purpose of promoting a healthy lifestyle, while the school is a strategic channel to promote knowledge of sun protection through education. Government plays an important role in the legislation and structural supports. The responsibility of health promotion cannot be based on health sector only because the outcome from working together among all sectors of the community is huge. Therefore, intersectional collaboration is very important.

Poster P5 by Rainbow Choi-hung CHAN:



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Will the SunWise School Program prevent skin cancer?



Chan Choi Hung & Fong Yuk-fai Ben

Non-melanoma skin cancers (NMSC) and melanoma skin cancers are two common skin cancers. According to The Hong Kong Anti-Cancer Society, NMSC is ranked among the top ten leading causes of cancer. Contributing intrinsic factors include gender, age, and lifestyle.

| Increase in Risk | UV Index | Protection Measures |
|---------------------|-------------|--|
| | 0-2 | Cover head and/or eyes |
| | 3-5 | Cover head and eyes and use low SPF sunscreen |
| | 6-7 | Cover head, eyes, body, and use strong SPF or do not spend time outdoors |
| | 8-10 | Cover head, eyes, body, and use strong SPF or do not spend time outdoors |
| | 11+ | Do not go outdoors |



prevention

· protective measures are necessary under the exposure to sunlight

Secondary prevention

- screening activity to detect early skin cancer
- · Legal skin cancer screenings introduced with the insurable funds of health (Kornek & Augustin, 2013)

 follow-up measures can reduce the chance of subsequent tumors and to avoid advancement of cancers and complications

Recommendations:

- Individuals should have health check regularly to maintain health
- Health professionals assist the public to develop health awareness and encourage them to pursue health
- Community groups are responsible for contact with the individuals directly, while the school is a strategic channel to promote sun protection through education
- Government plays an important role in the legislation and structural supports







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P6. Health Diet Promotion for Employees in Hong Kong

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Abstract

It is known that over 50% of Hong Kong employees suffered from sub-health. And one of the biggest factors of sub-health is unhealthy diet. It will directly affect the psychological, mental, physical and social health of employees and even the families and community in the long run if they continue to ignore the seriousness. The purpose of the study is to analyze the difficulties of Hong Kong employees in keeping healthy diet and the difficulties of Hong Kong companies to promote healthy diet, and to provide practical suggestions to organize healthy diet promotions. The data in the research were collected from The Hong Kong Federation of Trade Unions, The University of Hong Kong, The Department of Health and The Occupational Safety and Health Council, with the following parameters: individual factors (gender and age); social and community networks (government support and NGOs); working conditions (work environment, water and sanitation and health care services); general socio-economic, cultural and environmental conditions (big workload and economic inequality). Based on the data analysis, the study concluded: (i) Male had lower awareness of healthy diet; (ii) Middle-aged had no time for healthy diet; (iii) The government did not provide inadequate support includes policies and interventions; (iv) Employees with great work stress had poor eating habits; (v) Companies did not have adequate promotions and service facilities such as dining area and water dispenser; (vi) Due to big workload and intense competition, employees generally spend more than a third of time in such a fast-paced work environment. The author wished to suggest that: (a) The government should review current social problems, formulate policies and improve interventions, including establishing specialist departments, increasing input and subsidy, providing more healthy diet activities, strengthening advocacy with the media and assessing the effectiveness regularly; (b) Companies should take responsibility and fit in with the company culture implement measurements based on the company, including establishing specialist office, promoting more healthy diet activities, providing adequate service facilities, provide healthy snacks and evaluating the effectiveness in a timely manner.

Poster P6 by Kita LIU:



P7. Quality Improvement of Palliative Care in Public Hospitals of Hong Kong

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Abstract

Palliative care, also known as end-of-life care and hospice care, is important for people with complex and serious illness nowadays. It is focused on offering relief from the symptoms and stress of the illness, so as to ameliorate the quality of life for both patients and their families. In Hong Kong, palliative care is mostly used in patients suffering from cancer. It was found that the median age of patients at death of cancer was around 74 years in women and 72 years in men. Palliative care is also common in most public hospitals of Hong Kong, such as Hong Kong Buddhist Hospital, Bradbury Hospice, and Caritas Medical Center. The purpose of this paper is to investigate the quality of palliative care in public hospitals of Hong Kong. By reviewing different studies, various risk factors are likely to affect the quality of palliative care in public hospitals, including the types and referral of services, staffing, inventory and capacity as well as the locations and numbers of palliative care units. People are highly accessible to various types of palliative services through different public hospitals. Once they have received the services, the staff-patient ratio and the quality of staff would influence their satisfaction. It has been suggested that the palliative care services can be offered in all emergency department of public hospitals to further increase accessibility of the services. This also enhances the share of expertise and professional development of staff. However, some barriers may also be appeared, including the difficulty in accurate diagnosis and prediction of dying. In order to enhance the overall quality of the palliative care in public hospitals, it is necessary to increase professional training and recruitment of the palliative care workers. More funding should be supported by the government to funding as well as cooperation with other primary healthcare organizations, such as promoting palliative care through family medicine. Some hospital accreditation programs and Six Sigma Improvement methods can also improve the client satisfaction towards various palliative care services to the greatest extent. With these measures, it is hoped that the sustainable improvement in the quality of palliative care can be achieved in public hospitals of Hong Kong.

<u>Keywords</u>: Palliative care; public hospitals; palliative care workers; referrals of palliative care services; palliative care in family medicine

Poster P7 by Paco Pak-yin SHUM:



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Quality improvement of palliative care in public hospitals of Hong Kong

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Paco Pak-yin Shum School of Professional Education and Executive Development, Palliative Care Always

Palliative care (Hospice care) in Hong Kong

- ◆ Used in people who have been diagnosed with long-lasting, complex and serious illness (E.g. cancer, chronic lung diseases, heart diseases)
- ◆ 16 public hospitals providing palliative care (e.g. Hong Kong Buddhist Hospital, Bradbury Hospice, and Caritas Medical Center)

Current factors affecting the quality of palliative care in public hospitals

1. Types & of services

- > In-patient and consultative services
- Home care and day care services
- Outpatient services
- Bereavement care

2. Referral of services

- Provide specialist opinion for symptom palliation
- > Enhance patient flow
- Improve quality of life of patients

Queuing Model



3. Staff-patient ratio (if understaffing)

- waiting time of services for patients
- quality of patient-centered care

Input volume volume arrival patients service time capacity staffing fixed resources Performance Improvement and Design patient thow management capacity management ca

4. Inventory, supplies and capacity

- Cleaning materials disinfectants in palliative care (E.g. safety glasses, masks, gloves)
- 360 Palliative beds in 16 public hospitals

Staffing



5. Locations of palliative care units

- Widely distributed to 7 Hospital Clusters nowadays But *\(\text{proportion}\) of elderly in future
- May not fulfill the needs of patients

Recommendations for continuous quality improvement of palliative care

- ✓ Different types of palliative care training should be provided to the workers, such as pain management, psychospiritual care and even ethic issues involved in the treatment.
- ✓ The government should increase the sources of funding through forming partnership with some charity organizations, in order to increase the number of raw materials supplies and inventory needed in the palliative care.
- ✓ The referral systems and agreement between Hospital Authority and other healthcare
 organizations can increase the service options for patients and reduce the operational burden
 in public hospitals.
- ✓ The application of Six Sigma "Define-Measure-Analyze-Improve-Control" (DMAIC) improvement process can evaluate the preferences of patients towards services

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P8. Is "EatSmart School Accreditation Scheme (ESAS)" an Effective Way to Improve Childhood Overweight Problem in Hong Kong?

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Abstract

Based on the Childhood overweight problem in Hong Kong. The Department of Health, together with Education Bureau, has launched a health promotion programme called EatSmart School Accreditation Scheme (ESAS). ESAS targets at all primary school students in Hong Kong and aims at motivating and assisting schools to implement healthy eating policy, to establish an environment for healthy eating promotion as well as to strength the good eating habit of the students. To evaluate whether ESAS is an effective health promotion programme against Childhood overweight, the five key action areas in the Ottawa Charter for Health Promotion can be applied on the programme to assess whether it achieves in those five areas. Under the accreditation scheme, participating schools were found to be able to build, implement and revise the school healthy eating policy. Next, supportive environment was also created for health, like healthy lunch and banning unhealthy food and drinks in school area. Moreover, the participating schools were able to strength the community actions by setting priorities for lunch suppliers, which provided healthy lunch set. They had made decision on how to attract students to buy the healthy snack and implemented these strategies to achieve health. "Develop personal skills", which is one of the five action areas, was also achieved by educating students, parents and even schools staffs about practicing healthy eating in their daily life. ESAS also reoriented the health services towards primary health care by sharing the responsibility among different sectors and people and doing health research. ESAS fulfilled all five areas in the Ottawa Charter for Health Promotion, and thus it is an effective health promotion programme. The overweight and obesity rate of Hong Kong primary students has been shown to be gradually decreasing in each school years. However, it does not mean that the programme is a big success since the participation rate is low, with participation of only half of the primary schools. Therefore, the government should promote ESAS programme by using the influence of social media and renew the schools ranking system. If more primary schools in Hong Kong can join this scheme, the promotion against childhood overweight can be more effective.

Poster P8 by Hiu-shan LEUNG:



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Is "EatSmart School Accreditation Scheme (ESAS)" an effective way to improve childhood overweight problem in Hong Kong?

H.S. Leung

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Based on the Childhood overweight problem in Hong Kong. The Department of Health, together with Education Bureau, has launched a health promotion programme called EatSmart School Accreditation Scheme (ESAS). ESAS targets at all primary school students in Hong Kong and aims at motivating and assisting schools to implement healthy eating policy, to establish an environment for healthy eating promotion as well as to strength the good eating habit of the students.

Participating schools were able to build, implement and revise the school healthy eating policy

Supportive environment was also created for health e.g. provide healthy lunch and ban unhealthy food and drinks in school area

Strength the community actions e.g. set priorities for lunch suppliers, which provided healthy lunch set.

Develop personal skills
e.g. educate students, parents and
schools staffs about practicing healthy
eating in their daily life.

Reoriented the health services towards primary health care.
e.g. share the responsibility among different sectors and people and doing health research.

Success:

- -Fulfilled all five areas in the Ottawa Charter for Health Promotion
- -The overweight rate of HK primary students has been gradually decreased

Failure:

-The participation rate is low, with participation of only half of the primary schools.

Recommendations:

1. Using the influence of social media

Recommendations:

2. Renew the schools ranking system

Department of Health. (2017). EatSmart School Accreditation Scheme Update. Retrieved October 27, 2017, from http://school.eatsmart.gov.hk/en/template/index.asp?pid=2007&id=2001

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We are honoured to have the blessings of the Under Secretary for Food and Health of the Government of the HKSAR, Dr Chui Tak-yi, JP, and Dean of CPCE, Professor Peter P. Yuen, to officiate the opening. Moreover, the presence of academics from Australia, Hong Kong, Chinese Mainland, and Singapore as speakers at the Conference has granted the programme a great learning opportunity for our students, academic colleagues, as well as professionals in health care and other disciplines.

The enthusiastic submissions by authors and presenters of papers in the Parallel Sessions and Poster Presentations reflect the importance of the themes under discussion at the Conference. We would like to express our sincere thanks for their contributions to the knowledge and ideas on the topics of concern in healthcare delivery and financing reform.

We wish to thank all participants, from both local and overseas, for their time and support dedicated to the Conference and hope to meet them again in future seminars and events. Best wishes and good health!

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