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COLLEGE OF PROFESSIONAL AND CONTINUING EDUCATION 專業及持續教育學院
School of Professional Education and Executive Development 專業進修學院 SPEED
東華學院 TUNG WAH COLLEGE

Transcripts of CPCE Health Conference 2025

PRIMARY HEALTHCARE POLICY DEVELOPMENT IN THE ASIA-PACIFIC REGION

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Part I Introduction

Theme: Primary Healthcare Policy Development in the Asia-Pacific Region

It is with great pleasure that we present the transcripts of the tenth annual international CPCE Health Conference 2025, organised by The Hong Kong Polytechnic University's College of Professional and Continuing Education (PolyU CPCE). Since its inception in 2016, this conference has served as a vital platform for scholarly exchange, and this year, the conference was convened under the timely and critical theme, "*Primary Healthcare Policy Development in the Asia-Pacific Region*."

The 2025 conference was proudly supported by a grant from the Research Grants Council of the Hong Kong Special Administrative Region, China (Project No.: UGC/IIDS24/H02/24), as a part of the broader IIDS project, "Shaping Primary Healthcare Policy – Application of the Primary Health Care Performance Initiative (PHCPI)."

The Imperative for Primary Healthcare Reform

Across the Asia-Pacific region, healthcare systems are at a pivotal juncture, grappling with the challenges of ageing populations and the rising prevalence of chronic diseases. In Hong Kong, the government has responded with the "Primary Healthcare Blueprint," a strategic initiative launched to shift the system's focus from treatment to prevention (Health Bureau, 2022).

This policy pivot is underscored by a stark reality in healthcare expenditure. In the 2019/20 fiscal year, only 17% of public health spending was directed towards primary healthcare, with the overwhelming 83% allocated to secondary and tertiary services. While recent data from 2023-2024 shows an increase in primary healthcare's share of total health expenditure to 29.3% (Health Bureau, 2025), a significant imbalance persists, particularly in the public sector. This disparity highlights a crucial need to elevate the understanding and importance of primary healthcare concepts among the community, healthcare professionals, and academics alike (Fong et al., 2020; 2025).

Overcoming Barriers to Integrated Care

The successful delivery of high-quality primary healthcare hinges on a workforce of well-qualified professionals who embrace multidisciplinary collaboration within the community. A significant obstacle remains: a lack of mutual understanding among healthcare professionals, particularly concerning the distinct roles of allied health fields, which impedes effective teamwork and the provision of continuous, comprehensive care (Ho, 2020).

These challenges are further compounded by coordination deficits within the primary healthcare sector itself, between primary and secondary care, and across the public-private divide (Kassai et al., 2020). The Chronic Disease Co-Care Pilot Scheme, launched in November 2023, serves as a tangible example of these complexities. Positioned as a prototype for the 'Family Doctor for All' system, the scheme aims to shift population health-seeking behaviour from treatment to prevention through a new framework involving paired family doctors, multidisciplinary community services, and shared data (Yu et al., 2023). However, its rollout has sparked debate among private sector family doctors. Concerns about whether government subsidies will cover costs, the logistics of patient-doctor pairing, and the effectiveness of the eHealth system in sharing patient records have emerged (Yuen, 2023). These issues bring to the forefront critical questions about public-private cooperation, the sustainability of healthcare financing, and the need to evaluate and enhance healthcare IT systems.

Conference Objectives: Charting a Path Forward

In response to these pressing issues, the CPCE Health Conference 2025 fostered a collaborative environment to drive meaningful change. Our key objectives were:

i) To foster interdisciplinary dialogue among policymakers, healthcare stakeholders, and academics to identify and fill crucial research gaps, thereby optimising primary healthcare policy.

ii) To facilitate the sharing of knowledge and encourage research collaboration on primary healthcare policy development among professionals and academics from diverse institutions across the Asia-Pacific region.

iii) To equip health-related students with the essential skills and knowledge for future careers in primary healthcare and to encourage their active participation in shaping future health policies.

By bringing together diverse perspectives, this conference endeavoured to catalyse the development of interprofessional, transdisciplinary, and intersectoral strategies. It is through such collaborative action that we can hope to build a seamless, holistic care system for the community and advance the primary healthcare agenda throughout the Asia-Pacific region.

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Useful websites

Conference website: https://healthconf2025.cpce-polyu.edu.hk/programme.html

CAHMR website: https://cahmr.speed-polyu.edu.hk/

Supporting Organisations (in alphabetical order)

Acknowledgement

The conference was partially supported by a grant from the Research Grants Council of the Hong Kong Special Administrative Region, China (Project No.: UGC/IIDS24/H02/24)

We would like to extend our sincere appreciation to all the speakers who contributed to the CPCE Health Conference 2025. Their dedication in sharing expertise, as well as their efforts in proofreading and revising the transcripts, greatly enhanced the quality and integrity of the conference proceedings.

Conference photographs

Part II Transcripts

Opening Address by Guest of Honour

Dr LEE Ha-yun, Libby, JP

Under Secretary for Health, Health Bureau, HKSAR, China

Key Messages

- Hong Kong's healthcare system is transitioning from a hospital-centric, treatment-focused model to a prevention-focused, community-based system to address challenges like an ageing population and rising chronic disease prevalence.
- The Primary Healthcare Commission and District Health Centres are formed to drive the primary healthcare programme initiatives like the Chronic Disease Co-Care Pilot Scheme.
- The presentation emphasises expanding community-based programmes, such as Women Wellness Satellites and community pharmacies, and calls for academic collaboration to inform evidence-based policy changes targeting high-risk groups.

Distinguished guests, ladies and gentlemen, it is my pleasure to join you at the opening of the College of Professional and Continuing Education Health Conference 2025. This event underscores our collective commitment to advancing the primary healthcare across the Asia Pacific region.

The theme of this year's conference "Primary healthcare policy development in the Asia-Pacific region" aligns seamlessly with the vision set forth in Hong Kong's Primary Healthcare Blueprint, published in 2022. Hong Kong is suffering from its own success. We have a prolonged life expectancy, low maternal, and infant mortality rates. Now we are facing an ageing population with an increasing prevalence of chronic diseases. A fundamental transformation of our healthcare system is imminent. It is moving from a predominant hospital-centric and treatment-focused system to prevention focused and community-based one. It is the

key to the long-term sustainability of Hong Kong's healthcare system.

At the institution level, we established a Primary Healthcare Commission under the Health Bureau a year ago. We hope to make it a statutory body in the next one or two years. This commission was set up to oversee the primary healthcare development, including capacity building, service supply, standard setting, quality assurance, and personnel training related to the primary healthcare services.

At the community level, we have developed a District Health Centre or a smaller scale District Health Centre satellite in all 18 districts. This creates a network of a resource hub to coordinate and deliver community-based, multidisciplinary primary healthcare services.

Through this network, we have implemented Chronic Disease Co-Care Pilot Scheme (CDCC) for screening those people who are more than 45 years old for hypertension and diabetics. This is a three-year pilot programme starting from November 2023. The progress is good and we believe we can surpass our targets much faster. We have already recruited around 140,000 citizens and among them, 78,000 have completed the screening. 40% of them were identified with either diabetics or one of the "three highs" - high blood sugar, high blood pressure, or high cholesterol.

The prevalence of hidden chronic disease is beyond our expectation. It is beneficial to detect these diseases and treat our people at an earlier stage. Taking advantage of this programme, we plan to expand and deepen it. We want to transform it from a programme into a platform. This platform will build on existing model to encompass more chronic conditions, including risk-based hepatitis B screening. We will incorporate empowerment elements and preventive care programmes into this platform, with an aim to shift the focus of healthcare services from treatment to prevention.

Another notable milestone is the recent launch of Women Wellness Satellites. For all the gentlemen present, I have urged the Primary Healthcare Commission to also think about setting up Men Wellness Satellites as well. The first Women Wellness Satellite began operating in Chai Wan on 12th June. We plan to have another 2 additional sites at Lam Tin and Tuen Mun later

this year. This integration of women's health services will strengthen the district-based healthcare network, utilise resources more effectively, shorten service waiting times, reduce healthcare service duplication, and provide more comprehensive and convenient health services for women.

We are also laying down the groundwork for the community pharmacy programme. This programme will use a phased implementation approach. We will start doing it in last quarter of 2026. The community pharmacy will facilitate access to drug dispensing and professional pharmacy services for participants in our primary healthcare programme. We are currently developing practice guidelines for community pharmacy, which is a critical tool for establishing service standards and quality community pharmacies. These guidelines will standardise the collaborative model between community pharmacies and primary healthcare service providers. Through this community pharmacy initiative, we will offer patients another choice. They will not need to obtain their medications from general practitioners, but can access them directly at pharmacies at a better price.

We will continue to refine our healthcare policy, include revisiting the strategic repositioning of primary healthcare providers like the General out-patient Clinics (GOPC) under the Hospital Authority (HA). For those familiar with Hong Kong, the Hospital Authority is basically a highly subsidised organisation, receive 97% of subsidisation from the government. It provides only about 20% of the total primary healthcare services in Hong Kong. We believe the GOPC in HA play key and strategic roles in training and piloting new service models. Our targets focused mainly on the underprivileged group.

Last but not least, I urge closer collaboration with the academics. We have a wealth of data to explore, particularly in primary healthcare. I have already seen some very interesting findings from the CDCC model. We observe that women are more proactive in managing their health than men in this co-care programme, while the gentlemen are less engaged. We need to formulate some strategies to encourage greater male participation in the screening programme. Before closing, I hope you have a refreshing and fruitful conference today, and I welcome you all once again.

Welcoming Speech

Prof. Peter P. YUEN

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

Key Messages

- This year's conference on primary healthcare policy development in the Asia Pacific region, highlights Hong Kong's primary healthcare initiatives and their potential impact
- Concerns remain about sufficient funding to implement these initiatives effectively.
- The conference fosters international collaboration, encouraging the exchange of ideas, experiences, and research findings from early adopters to inform Hong Kong's primary healthcare reforms.

This year, we have about 500 people registered for this conference. About 100 are attending in person and about 400 are joining online for both days. The CPCE Health Conference is becoming a major event every year. We are also very fortunate to have Tung Wah College as our co-organiser, because the two of us received a grant from the RGC to support this event. The theme of this conference this year is primary healthcare policy development in the Asia Pacific region. We are excited, as we have just heard from the undersecretary, about so many primary healthcare initiatives being developed in Hong Kong.

However, I am also equally apprehensive about whether we can really make an impact with all these initiatives. Since I'm a health economist, I look at the financial side. I am apprehensive about whether we have sufficient funds to implement all these initiatives properly to make an impact.

I will probably dwell a little bit more on that this afternoon during my session. We really need to put our heads together, because there are so many primary healthcare initiatives in our region

in the Asia Pacific, which have been implemented for a while. We need to exchange ideas, experiences, and research findings. By learning from each other, we may be able to bend the learning curve a little bit. Since we are kind of a late starter, we want to look at some early adopters of primary healthcare to see whether there is something we can learn. This conference is truly international -- we have speakers from Australia, Chinese Mainland, Korea, Japan, New Zealand, Thailand, Singapore, and the UK, and, of course, many speakers from Hong Kong.

I am most grateful for all of you coming here for this event. I would also like to thank again Prof. Sally Chan and her colleagues for co-organising this event. I must thank Prof. Ben Fong. He is a very busy person, but he, along with Tommy, has done an excellent job year after year in putting together this conference. Thank you very much.

Welcoming Speech

Prof. Sally CHAN

Conference Chair and President, Tung Wah College, Hong Kong, China

Key Messages

- The conference, jointly organised by PolyU SPEED and Tung Wah College, forms part of a research initiative supported by the Research Grants Council of Hong Kong SAR. It is dedicated to addressing primary healthcare research gaps and enhancing collaboration across the Asia Pacific region.
- Tung Wah College, an emerging institution that educates 90% of its graduates for Hong Kong's healthcare sector, integrates primary healthcare and interprofessional learning into its curriculum to equip students for roles in community-based healthcare environments.
- The event seeks to tackle regional health challenges through the development of tailored policies, promoting active involvement from experts and stakeholders to share best practices and advance sustainable, high-quality primary healthcare.

On behalf of the Conference Organising Committee, I extend a warm welcome to all participants, both those attending in person and those joining virtually at this distinguished conference. I wish to express sincere appreciation to PolyU SPEED, with special acknowledgment to Prof. Peter Yuen, Prof. Ben Fong, and the Organising Committee, for inviting Tung Wah College to serve as a co-host. This conference forms a vital component of the research initiative, "Shaping Primary Healthcare Policy: Application of the Primary Healthcare Performance Initiative," a collaborative effort between PolyU SPEED and Tung Wah College, generously supported by the Research Grants Council of Hong Kong SAR. The project is dedicated to addressing critical research gaps in primary healthcare, facilitating the exchange of knowledge, and advancing collaborative endeavour within the Asia Pacific region.

The theme of this conference is particularly pertinent, as it seeks to address pressing health

challenges among the diverse populations of the Asia Pacific, necessitating the formulation and implementation of contextually relevant policies. Throughout this event, participants will have the opportunity to engage with leading experts, exchange exemplary practices, and establish partnerships that are essential for the advancement of sustainable healthcare policy development.

Tung Wah College, founded in 2010 by the Tung Wah Group of Hospitals, is a young self-financing tertiary institution. Notably, it stands as the sole private institution in Hong Kong offering five accredited programmes dedicated to the training of healthcare professionals, with 90% of its graduates contributing to the medical and health sectors. The College's curriculum is distinguished by its integration of primary healthcare experience within clinical placements, equipping students for effective practice in community-based healthcare settings. Furthermore, the College actively promotes interprofessional learning, thereby fostering collaboration across various disciplines to reinforce the healthcare system.

This two-day conference convenes thought leaders, policymakers, and healthcare professionals to share critical insights. I strongly encourage all participants to engage actively in discussions and dialogues, thereby contributing to substantive and meaningful outcomes. I would also like to acknowledge the invaluable efforts of the Organising Committee, as well as our sponsors and partners, whose support has been instrumental in making this event possible. Special thanks are extended to our distinguished speakers from Hong Kong and abroad. It is anticipated that this conference will serve as a catalyst for positive transformation within our healthcare systems, promoting the development of accessible, affordable, and high-quality primary healthcare throughout the Asia Pacific region.

1.1 Leveraging Global Frameworks and Validated Assessment Tools to Inform Local Primary Care Reform

Prof. Samuel WONG

Director, JC School of Public Health and Primary Care, Faculty of Medicine, The Chinese University of Hong Kong, Hong Kong, China

Key Messages

- Hong Kong's healthcare system is strained by an ageing population, increasing chronic disease burden, and overstretched public services, with 97.6% of healthcare services subsidised and only 34.5% of the budget allocated to fragmented primary care.
- Using global primary healthcare frameworks and tools such as 5Cs, the Primary Health Care Performance Initiative (PHCPI), and the Primary Care Assessment Tool (PCAT), to formulate, monitor, and adjust policies can more effectively validate health outcomes and drive healthcare reforms, reducing health inequities.
- Hong Kong can draw on successful global experiences in primary healthcare, promote active public and patient engagement in healthcare reform, and combine regular follow-up surveys and monitoring to enable the government and policymakers to effectively plan targeted reforms for vulnerable groups, while also strengthening continuity of care for chronic disease patients and overall quality of healthcare services.

Ageing Population and Healthcare Financing in Hong Kong

In Hong Kong, we are facing prevalent problems. I do not think ageing itself is a problem. It is not a tsunami. But ageing combined with disability and chronic diseases is the problem. Getting old does not have to become a problem, but if we do not take care of ourselves and suffer from multiple chronic diseases and pain, then there will be issues for quality of life and for the healthcare system.

Hong Kong faces the same issues as many developed countries: an ageing population, a chronic disease burden, and overstretched public hospitals. In fact, when we look at the data, 97.6% of

Hong Kong healthcare services are subsidised (Hong Kong Hospital Authority, 2025). We are very overstretched. We have a fragmented primary care system, and only about 34.5% of our healthcare budget is on primary healthcare (Health Bureau, 2024a). Actually, about 10% of the gross domestic product (GDP) is spent on healthcare services, and about half of that is from public services. By 2040, about one-third of the population will be aged 65 and above. We are facing a population that is ageing and also living with multiple chronic conditions.

Our disability rate is increasing, although our life expectancy is also increasing. This means we will have more people with disability who will require healthcare services in the very near future. We are also experiencing financial and structural pressures. There are growing financial pressures, even as budgets increase. This was reported in the Health Bureau last year, indicating we are the second highest among 15 similar places in public health expenditures. And 58% of the current health expenditure was paid via government schemes and one thing very particular in Hong Kong is the high out-of-pocket payment, which is quite significant compared to other countries (Health Bureau, 2024b). 27% of private services are paid out-of-pocket, and only 15% of people have private insurance (Health Bureau, 2024b). So, there is an issue of who is going to pay for all this.

I believe the government will have to carry out some healthcare financing reform. I believe the government does not want to talk about it, but I think we are at a critical point where it needs to be addressed.

Primary Care Reform and Initiative

We are now in the midst of primary care reform. I believe many of you have seen the Primary Healthcare Blueprint. In a recent committee meeting, the discussion covered the integration of eHealth records, iAM Smart, and the HA Go system. We are doing a lot of changes in the healthcare system, and I believe that in the general outpatient clinics people will start to pay more, including for the drugs and in the community pharmacies. Patients are starting to ask what will happen next year. So, we need to be prepared for these changes.

There is a new life-course preventive approach, with some screening done in private general

practitioner (GP) or family doctor clinics, some of which are subsidised. The government is considering which services will be subsidised and which should be additionally paid for, such as hepatitis B screening, women's health services, and vaccination, etc. There is potential for the public and private sectors to work together to achieve lower prices and broader coverage.

Evaluating Reforms with Global Frameworks

Why do we use global framework tools? I believe one of the reasons is for comparison purposes. We can change and reform, but without assessment, we do not know where we are or whether the reforms have achieved their intended effects. For example, if we change the subsidy system, we might neglect the very poor or worsen health inequity. Comparison across and within systems is needed, and pre- and post-assessment for monitoring and evaluation of success is also very needed. That is why we need to learn from each other, and why we have people here at the conference from Japan, Korea and other countries to compare their systems to Hong Kong's.

When you look across the world, there are many frameworks. The proposal for this conference uses the PHPCI conceptual framework, but I looked at others and found many more frameworks. Which one should we use and how do we choose? So, I examined the literature and found some frameworks I can briefly discuss, and I can share some experiences where we have used such frameworks when looking at primary care systems.

Operational Framework for Primary Healthcare

The first is the WHO framework from 2020. Many of you know the Declaration of Astana in 2018 and Declaration of Alma-Ata in 1978, where universal health coverage was discussed. The reason for a second declaration was that we had not reached that goal. And that is why we need more research, more services, and more policies to support this effort. Within this framework, 14 "levers" for translating global commitment is outlined (Table 1.1.1). One strength of the framework is its actionable items for measuring local health system performance. The WHO framework is also more comprehensive because it involves patients and the population as a whole, integrating health services and policy. It also highlights models of care, which can be a focus for doing some evaluations, including promoting some high-quality,

people-centred primary care and public health functions (Table 1.1.1). Globally, since the SARS epidemic in 2003, there have been more suggestions to have public health works closely with primary care. That is one reason why we have a School of Public Health and Primary Care in our university. Family medicine doctors can perform many public health functions such as screening, surveillance and infection control, in the primary care setting. The framework discusses care models essential for high-quality, people-centred primary care systems. Also, operational levers let us measure changes in the system and know if any changes have been successful or not. But these models must be suited to the local context, including regions and principles. Yet, the fundamental principles remain the same—the five Cs, comprehensive, patient-centred, continuous, and first contact of care that is coordinated.

The Primary Health Care Performance Initiative Conceptual Framework

Another important framework is the Primary Health Care Performance Initiative (PHCPI) conceptual framework, developed by the WHO, World Bank Group, and the Bill & Melinda Gates Foundation in 2015. They came together with policymakers and academics in 2015, discussing what they should do and to look at the healthcare systems in more than 30 countries. They reviewed over 300 papers. They designed a framework to measure health system performance in any country. The advantage is that it complements the WHO framework, where is more focused on primary healthcare. For example, if we want to know if reform is achieving its goals, we can use this framework to measure change. The Milbank Quarterly published an article about this in 2017, describing how to strengthen accountability, operational models, and assessment in this framework. There are some features of this conceptual framework, including system-level orientation, input-process-output-outcome logic, and a focus on service delivery. For example, in Hong Kong, we have public and private system and using this model to see how we are doing in terms of the organisation, outcomes and outputs.

The unique feature of this framework is that it is a people centred, integrated care with a strong focus on the service delivery where we can measure as our healthcare is getting more complicated. If you are 65 years or above, then there is a high chance that you might have chronic diseases. And if you are 70 years or above, that is probably more than 30% of you might have more than one chronic disease. With more chronic diseases, your care will be more

Table 1.1.1. Overview of primary healthcare levers

Title	**Full description**
Core strategic levers	
Political commitment and leadership	Political commitment and leadership that place PHC at the heart of efforts to achieve universal health coverage and recognise the broad contribution of PHC to the SDGs.
Governance and policy frameworks	Governance structures, policy frameworks and regulations in support of PHC that build partnerships within and across sectors, and promote community leadership and mutual accountability.
Funding and allocation of resources	Adequate funding for PHC that is mobilised and allocated to promote equity in access, to provide a platform and incentive environment to enable high-quality care and services and to minimise financial hardship.
Engagement of community and other stakeholders	Engagement of communities and other stakeholders from all sectors to define problems and solutions and prioritise actions through policy dialogue.
Operational levers	
Models of care	Models of care that promote high-quality, people-centred primary care and essential public health functions as the core of integrated health services throughout the course of life.
Primary healthcare workforce	Adequate quantity, competency levels and distribution of a committed multidisciplinary primary healthcare workforce that includes facility-, outreach- and community-based health workers supported through effective management supervision and appropriate compensation.
Physical infrastructure	Secure and accessible health facilities to provide effective services with reliable water, sanitation and waste disposal/ recycling, telecommunications connectivity and a power supply, as well as transport systems that can connect patients to other care providers.
Medicines and other health products	Availability and affordability of appropriate, safe, effective, high-quality medicines and other health products through transparent processes to improve health.
Engagement with private sector providers	Sound partnership between public and private sectors for the delivery of integrated health services.

(Continues)

Table 1.1.1. (Continued)

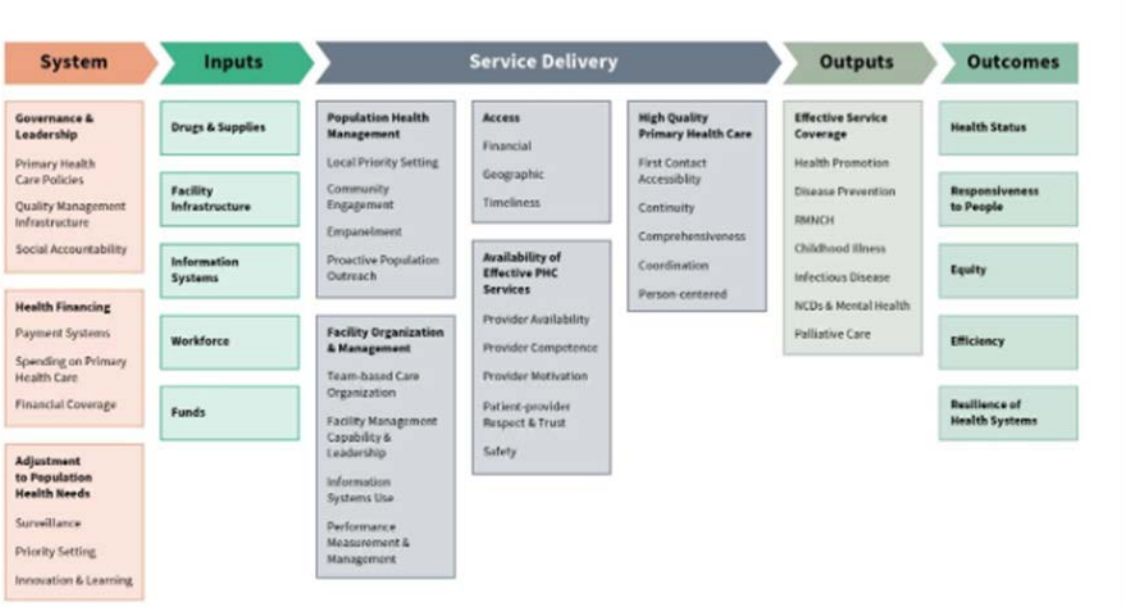
Title	**Full description**
Operational levers	
Purchasing and payment systems	Purchasing and payment systems that foster a reorientation in models of care for the delivery of integrated health services with primary care and public health at the core.
Digital technologies for health	Use of digital technologies for health in ways that facilitate access to care and service delivery, improve effectiveness and efficiency, and promote accountability.
Systems for improving the quality of care	Systems at the local, subnational and national levels to continuously assess and improve the quality of integrated health services.
Primary healthcare-oriented research	Research and knowledge management, including dissemination of lessons learned, as well as the use of knowledge to accelerate the scale-up of successful strategies to strengthen PHC-oriented systems.
Monitoring and evaluation	Monitoring and evaluation through well-functioning health information systems that generate reliable data and support the use of information for improved decision-making and learning by local, national and global actors.

Source: World Health Organization and the United Nations Children's Fund (2020, pp. 4-5).

complicated. That is why solo practice will be difficult and I believe in the future that people will be working together to support each other. And we also need more training for allied health professional to work in the team.

The main domains of the framework—reflecting the social determinants model—are system, inputs, service delivery, outputs, and outcomes (Figure 1.1.1). With population health surveys, we can check whether healthcare outcomes are improving, especially when comparing highest and lowest income groups, or most and least educated. We can check whether the health outcome gaps are narrowing or widening. For the efficacy, we can review whether the changes we made are cost-effective or not. Are our investments yielding improvement? Such as more quality-adjusted life years or less disability-adjusted life years.

Figure 1.1.1. The PHCPI Conceptual Framework



Source: World Bank Group (2022).

The application of these frameworks is to benchmark and monitor public health policy reforms, and to drive evidence-based improvement at the local and national health system. And one of the service deliveries that I want to emphasise is the high-quality primary healthcare output, including the first contact, accessibility, continuity, comprehensiveness, coordination and person-centred care which can be measured. If something cannot be measured, you will never know if you are on the right track; but if we can measure them then we know that we are going for the right direction. So, the focus on service delivery processes is on access, people-centred care, and organisation and management.

Primary Care Assessment Tool

I used a different framework many years ago to look into the primary care system in Hong Kong. Primary Care Assessment Tool (PCAT) was one of the frameworks I learned. I completed the Master of Public Health at the Johns Hopkins University, from Professor Barbara Starfield. She was the first person to develop PCAT and we quote her work all the time. The reason that we are doing and focusing on primary care is because it produces better population health, decreases population mortality, and increases equity and patient satisfaction.

And she was the first one to publish a paper in the prestigious journal in 2005 that showed countries with a better primary care system had better overall population health. PCAT gives you a chance to have organised evidence-based matrix for measuring reform in multiple dimensions. So how did we use that? More than 10 years ago, we used these global tools, which have been used in other places afterwards to translate into local actions.

Besides, this was a commissioned study with General Outpatient Clinics (GOPCs) by the Hospital Authority. We were tasked to look into whether the GOPCs and private primary care clinics in Hong Kong were providing accessible patient-centred, coordinated and comprehensive care. Also, the continuity of care was also looked into to compare the private services and the public services to look at gaps that we could address to improve the system. First contact is the accessibility of care. Continuity of care includes interpersonal continuity of care, system-level technological continuity of care and integration in terms of the coordination of primary and secondary care.

Comparative Analysis of Public and Private Primary Care

We carried out a survey of over 1,000 participants in Hong Kong and looked into primary care, such as organisational resources and processes, according to the 5Cs. We used this tool to translate and then back-translate harmonisation and pilot study to make sure that it is culturally adaptive and useful for the local population. Then, we did a comparison of overall score in GOPCs and private primary care services (Table 1.1.2). You can see that if you go to the GOPC compared to the private family doctors' clinic, the family doctors are usually more accessible in Hong Kong. That means that you can actually find them within 24 hours, which is true.

Now they are shifting the role of GOPC services that catered more intensively for the more disadvantaged. The first contact and the continuity domains showed that the private clinics were performing better because patients were seeing the same group of general practitioners, while the continuity of care domain was sometimes missing in the public services. However, in terms of comprehensiveness and coordination, there was not much difference between these two systems. In general, it seems that a private family doctor service is having more accessibility and continuity, although the coordination and comprehensiveness were similar

Table 1.1.2. Comparison of adjusted primary care assessment scores among adult patients in different healthcare settings, 2010

Primary care domains	**Range of values**	**GOPC Score Mean (SE)**	**GP Score Mean (SE)**	**p value**
Adjusted primary care achievement*				
First Contact (Utilisation)	(3-12)	8.87 (0.15)	9.21 (0.07)	0.048
First Contact (Accessibility)	(4-16)	6.88 (0.15)	8.41 (0.07)	<0.001
Continuity of Care	(4-16)	8.37 (0.18)	11.69 (0.08)	<0.001
Coordination of services	(4-16)	9.47 (0.31)	9.67 (0.17)	0.584
Coordination (Information System)	(4-12)	8.00 (0.10)	8.06 (0.05)	0.660
Comprehensiveness: Service available	(6-24)	14.97 (0.31)	15.71 (0.15)	0.046
Comprehensiveness: Service provided	(6-22)	12.14 (0.26)	12.05 (0.13)	0.764
Family Centredness	(3-12)	7.74 (0.15)	8.07 (0.07)	0.056
Community Orientation	(3-10.5)	4.79 (0.11)	4.71 (0.05)	0.541
Primary care total score	(50.5-133)	77.03 (0.80)	83.26 (0.38)	<0.001

*Primary care scores adjusted for gender, age, education level, income, insurance, use of specialist services, chronic disease conditions.

Source: Wong et al. (2010).

between the two systems, which may help the government and stakeholders to think about changes that are needed to address this issue, especially for the poor.

And what about those with chronic diseases? In the GOPCs, if you have a chronic disease, then your access is much better if you are going for episodic care. That is why there has been an increasing quota for episodic care appointments in the GOPCs, as the continuity of care and coordination seem to be better. So, it means that Hong Kong GOPCs in the public sector is catered towards serving people with chronic diseases, and they do provide better services for these people. However, if you are an older adult without chronic diseases who suddenly needs

some acute care, then GOPCs may not be able to address it, and you may end up at accident and emergency (A&E) or in private services. These are some of the reasons, I believe, that count towards the need for reform. They are trying to change the system to better address vulnerable populations, and these efforts are validated.

International Comparison: Hong Kong and Shanghai

Comparing the quality of primary care between Hong Kong and Shanghai, we found that Shanghai had some good things back then, including first contact care (Table 1.1.3). Hong Kong performed better in this area, but in terms of continuity of care, Shanghai seems to outperform us in public services. And you know what they did in Shanghai? They have a contract with their general practitioner teams so that they will see the same teams of doctors in Shanghai. Some of the coordination seems to be better in terms of the information.

They use WeChat to engage patients and provide health information between visits, such that the patient would be more engaged and not visit unnecessary A&E visits. Also, you can plot the diagram to show the strength of each system, including Hong Kong being better in first contact and Shanghai being better in continuity of care. So, you can make a very good map to show the strengths and limitations of each system for comparison purposes PCAT has been used in different places, including Tibet (Wang & Haggerty, 2019), Spain (Pasarín et al., 2013), Brazil (Pinto & Silva, 2021), Canadian (Moe et al., 2019), Japan (Aoki et al., 2016), Korea (Lee et al., 2009), and Vietnam (Hoa et al., 2018), and other places in different parts of the world.

In Hong Kong, while we are quite developed, when we ask people, they still do not have a family doctor. In the Hong Kong population, about 23% of people will say they have a family doctor, which is way behind compared to other developed countries (Health Bureau, n.d.). As Dr Libby Lee has said that this is something we should work together on. I hope that the shifting of services to more of the vulnerable population in the GOPCs, while those who can pay in the private sector, can help to shift this in terms of reaching 90% or above in the near future. In fact, I want to repeat this survey, and I hope that we will get some funding somewhere to do it. I think we should repeat it every few years to know where we are, so that we know

Table 1.1.3. Individual and total primary care attributes scores reported by respondents in Hong Kong and Shanghai

Attributes	**Hong Kong (SD)**	**Shanghai (SD)[1]**	**Adjusted city effect (95%CI)[2]**
First contact-utilisation	3.15(0.84)	2.54(0.58) ***	0.757(0.647,0.866) ###
First contact-accessibility	1.59(0.49)	2.15(0.45) ***	-0.635(-0.709, -0.562) ###
Continuity of care	2.33(0.60)	3.10(0.58) ***	-0.715(-0.811, -0.620) ###
Coordination of services	2.67(0.67)	2.40(0.61) ***	0.225(0.121,0.329) ###
Coordination of information	2.84(0.57)	3.64(0.48) ***	-0.704(-0.788, -0.620) ###
Comprehensiveness-service availability	2.43(0.75)	3.31(0.50) ***	-1.008(-1.106, -0.910) ###
Comprehensiveness-service provided	2.11(0.70)	2.40(0.61) ***	-0.296(-0.402, -0.191) ###
Family centredness	2.49(0.80)	2.89(0.84) ***	-0.466(-0.600, -0.332) ###
Community orientation	1.90(0.60)	2.05(0.73) ***	-0.166(-0.279, -0.053) ##
Cultural competence	1.90(0.75)	2.72(1.13) ***	-0.889(-1.055, -0.723) ###
Total score	23.40(3.18)	27.20(3.72) ***	-3.898(-4.479, -3.317) ###

Note: [1]Compared with that of Hong Kong using independent two-sample t-test

* $p<0.05$

** $p<0.01$

*** $p<0.001$

[2]The city effect was examined using multiple linear regression models, where the dependent variable is the domain score, while independent variables are gender, age, education, occupation, household income, health status and presence of chronic diseases.

# $p<0.05$

$p<0.01$

$p<0.001$

β is calculated with Shanghai as reference; CI = confidence interval.

Source: Wei et al. (2015).

what the gaps are and where we should focus in terms of people with chronic diseases, where they are getting support for self-management, which I believe is very much of interest to the college and the school here, where you are training allied health professionals.

We are also very behind in this, and I believe if the Chinese Mainland is putting efforts into this, they would be much better in terms of sound management because of the very well-developed electronic system they have. In fact, in Hong Kong, even if you have a chronic disease, it is quite hard for people to actually get contact and care from the healthcare system. If you are a patient of the general outpatient clinics, it is almost impossible to talk to someone in between your episode of the four-month duration or about the medication that you don't understand.

You can reflect it here that we have a very low percentage of people who can utilise healthcare professional services in between. So, I just give you two of the examples that we have in terms of looking into reform. But we do have a lot of barriers. I believe Hong Kong's biggest barriers now are lack of resources and personnel in doing that, and there is administrative rigidity for reform. I was reading some health behaviour literature, and it says that even if you know something is wrong, if something was started, people have a tendency to resist any. I believe that happens to all of us. I believe we are all changers and want to change the system, and when we encounter something that we think is wrong, nobody may want to change it because it has been there for the past 20 years. I believe this is a good time, as it seems the government has appointed new people like Dr Libby Lee and Dr Cecilia Fan —those people, if you talk to them, want change.

I am very hopeful for all these changes, and I believe we also can work together with allied health professionals to do that. Often, this resistance comes from insufficient stakeholder engagement. I believe organising conferences like this can engage people and tell them where we are and what we want to do. I think there is a critical role in leveraging global frameworks and validated tools in order to monitor, increase the awareness, and look at the system to identify where the gaps are and where we can change. We should be champions of the evidence-based participatory approach. Also, I hope that one day, we can have more public and patient

involvement in contributing to reforms.

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1.2 Enhancing Primary Healthcare Policy Development in the Asia-Pacific Region: Building Competencies and Promoting Evidence-Informed Decision-Making

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Key Messages

- Effective primary healthcare reform requires more than funding and policy intent. Australia's Primary Health Networks demonstrate how locally informed, nationally coordinated commissioning, supported by clear governance structures, performance monitoring, and stakeholder engagement, can reduce fragmentation and improve service alignment with population needs.
- System transformation fails when it focuses only on structures or training. Behavioural change is central, and this depends on developing leaders and managers who can apply competencies in real contexts, model desired behaviours, use data intelligently, and embed new routines into everyday practice within a supportive organisational environment. Workforce capability, especially leadership and management, is the critical enabler of lasting change
- Healthcare transformation should be guided by well-established change models, continuous monitoring and evaluation, and deliberate learning processes. Digital health and AI should be enabling tools—not additional burdens—used strategically to support evidence-informed decision-making, continuous improvement, and system sustainability. Change must be planned, evaluated, and sustained through evidence-informed and people-centred approaches.

Importance of Primary Care in Healthcare Sustainability

Primary care is crucial to the sustainability of healthcare service provision in meeting the growing healthcare needs of the population. However, planning, prioritising and funding primary and community care provision is challenging because the services are diverse.

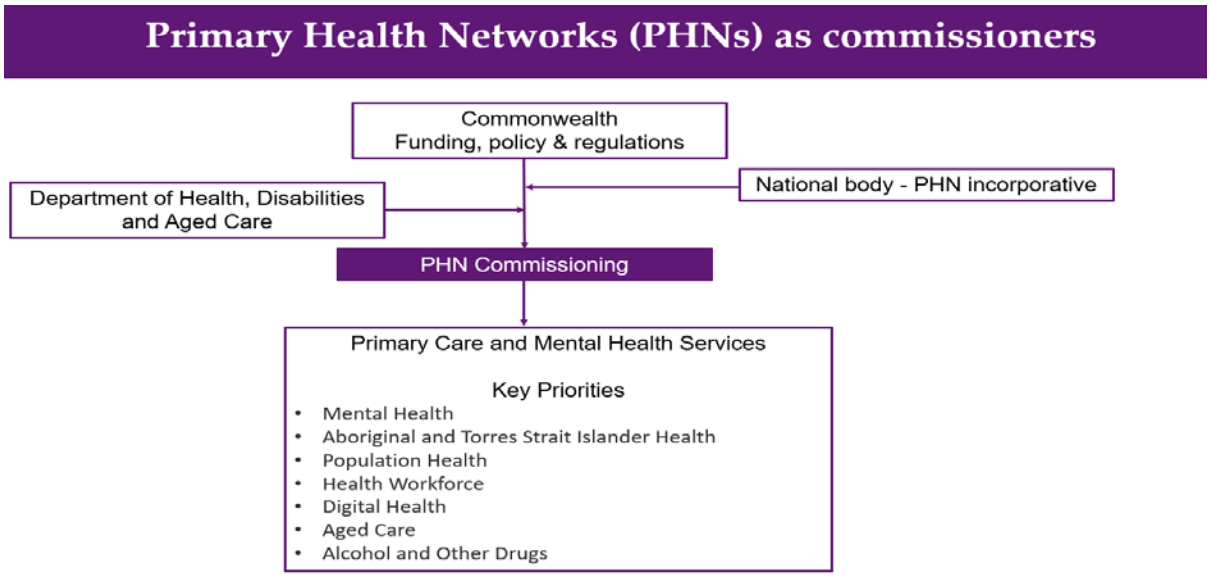
Australia's Primary Health Networks

In the first part of my presentation, I will share the experience of Australia in the establishment of the Primary Health Networks (PHNs), and how they play a central role in the planning and provision of primary care. Change is inevitable in healthcare. We need competent leaders and managers to implement and sustain these changes. In the second part of my presentation, I will look into how we build leaders and managers, and capabilities. I will also discuss how we use the change model as a guiding framework to structure this process- with sustainability in mind. Earlier in Professor Wong's presentation, he mentioned some challenges facing the Hong Kong healthcare system. They are not unique to Hong Kong. They can apply to all the countries across Asia Pacific region. Healthcare is at the transformation point. We have seen so many changes over the years. For example, a focus on patient outcomes and systems sustainability. We need to have forward thought rather than thinking about this point of time. We need to coordinate and streamline healthcare services so that we can better meet the patient needs, generate better patient outcomes, and create a better patient experience. We need to be able to combine professional expertise from various disciplines to provide the care. We need to make data-driven decisions.

We also need to allow data exchange across the sectors. We need to capitalise the benefits of digital technology development and make sure that every dollar spent in healthcare will contribute to creating value for our patients. We need to change the skills of our workforce to make sure they can work in this changing environment. There are many changes happening and will continue to happen. It is similar to what Professor Wong mentioned about Hong Kong, where 34.5% of the health expenses are spent on primary care. In Australia, we consume one-third in primary care provision. To better coordinate primary care services and reduce fragmentation in service provision, Australia established 31 Primary Health Networks (PHNs) across the country in 2015. They act as independent commissioners for primary, community and social care provision.

This figure demonstrates the relationship between the funder, service providers and PHNs (Figure 1.2.1). The Commonwealth Government does not directly fund primary healthcare services. Instead, it provides funding to the 31 Primary Health Networks. They then act as a commissioner that plan and prioritise services at the local level and commission local service

Figure 1.2.1. Governance and Commissioning Relationships in Australia's Primary Health Network



providers in providing primary care and mental health services in the key priority areas, such as mental health, Aboriginal and Torres Strait Islander health, population health, health workforce development, digital health, aged care, alcohol and other drugs. In order to ensure that all the services deliver high quality and locally planned commissioned work that meets the local needs, PHN commissioning is governed by three bodies. The first two levels are Board of individual PHN and PHN Cooperative – a national PHN body, consisting of chief executive officer of the PHNs. It sets the standard and the quality of requirements. Another level is the Department of Health, Disabilities and Ageing, who imposed the planning, reporting requirements to PHNs. The primary and community care provision in Australia is quite different from that of in Hong Kong.

Primary Health Network Commissioning Framework

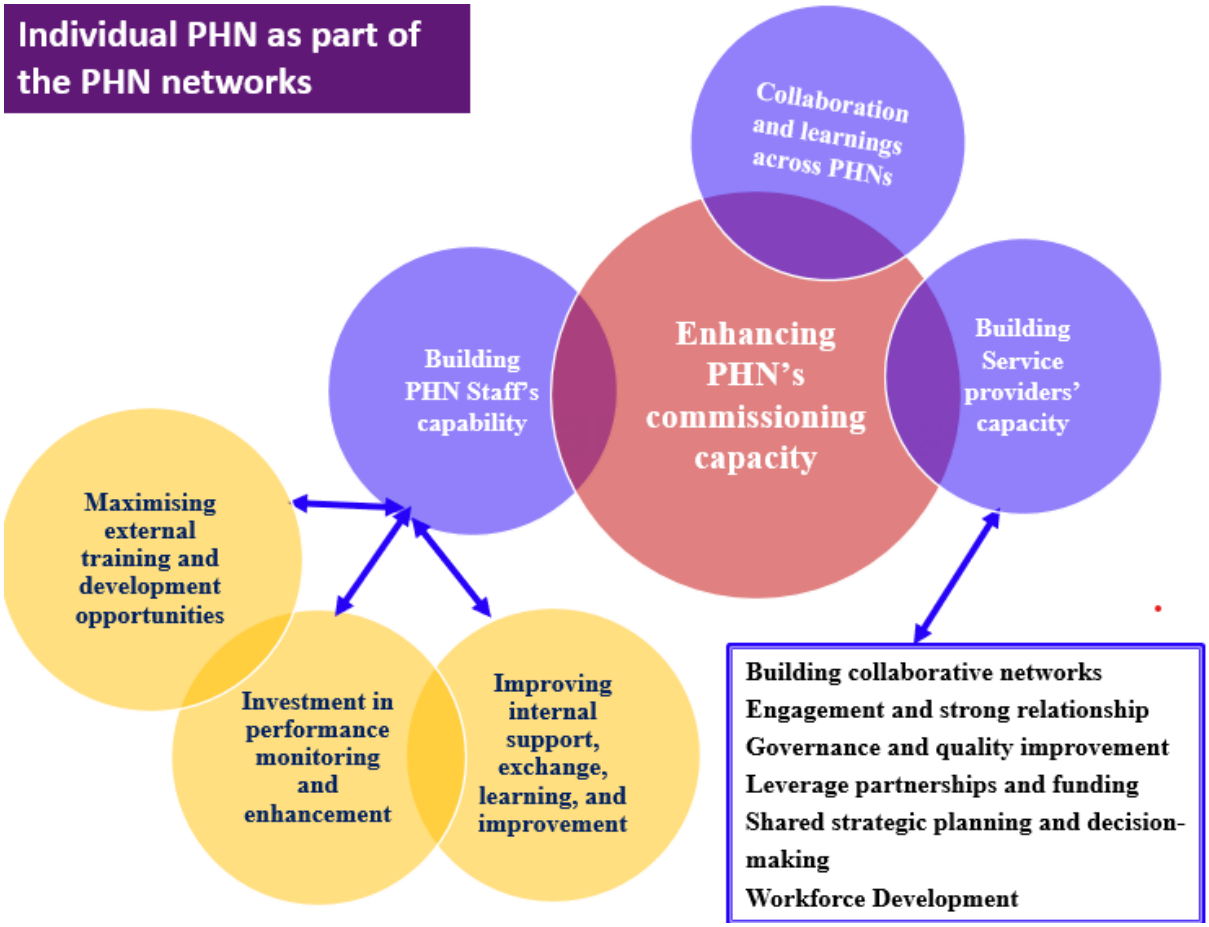
Primary Health Network Commissioning is guided by the Commonwealth Strategic Commissioning Framework. It is a standardised framework applied to all the PHNs. Each primary health network plans, prioritises and funds services according to the local needs in the particular catchment area. We allow much better planning because different geographic location will have different healthcare needs.

Commissioning is a cycle that consists of three key components. It starts with a three-yearly strategic planning process, which includes conducting local needs assessment, adopting a co-design, and continuous key stakeholder engagement approach. Once the local needs have been prioritised, the Commissioned work will be designed in consultation with local services through a procurement and contractual process. They tender out the services to local service providers. Another key role of commissioning is to monitor and manage the performance of service providers commissioned to provide the service and monitor the quality and outcome of the commissioned. They can learn from the data collected to support continuous quality improvement processes. This is the key function of Primary Health Networks.

Building Commissioning Capacity in Primary Health Network

Last year, in partnership with 11 PHNs, we completed a research project examining how to build the commissioning capacity of the PHNs (Liang et al., 2025). As a result, four key commissioning success factors were identified. One of these four factors central to commissioning success is the active engagement of service providers. Engaging stakeholders is not easy. It is not just about consulting them. You need to have a strong purpose in mind, and the strategy is keeping them engaged from the beginning to the end. It is important to provide support to the project, build strong relationships by providing timely response, being open to suggestions, and listening to their concerns, while also developing the workforce to meet the emerging needs. Based on the research data collected and broad consultation with the PHNs, we developed a framework for strengthening the commissioning capacity of PHNs (Figure 1.2.2). The framework adopts a more systematic approach to engaging different levels in order to build their capability. It includes two key components. The first component is the individual PHN as an organisation and as part of the national body. Three key strategies are crucial to enhance the commissioning capacity at this level. First strategy is to build PHN staff's capability - not only developing their skills but also enabling them to apply these skills in commissioning work and to maximise external training and development opportunities. Second, investing in performance monitoring and enhancement, so that they know how well they are doing and what improvement direction should be. This also allows for recognition of the great work they have done. Third, improving internal support and exchanging learning for quality improvement and continuous improvement purposes. The second key component for building PHN's commissioning capacity is treating each PHN as part of the national body. This

Figure 1.2.2. Framework for Strengthening the Commissioning Capacity of Primary Health Networks



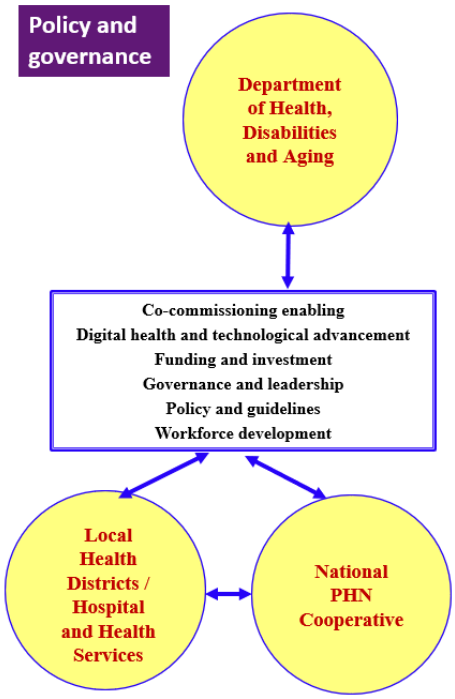
Source: Liang et al. (2025).

maximises the collaboration across PHNs and allows share learning and support. The third component is building service providers capacity. This requires not only supportive policy and have funding and policy, but you also need service providers who have the capability to deliver the work. We need to implement a number of strategies to support them. We need to shape the market supply. This is the first component of the framework. Treating PHN as both individual organisation and part of a national body.

Policy and Governance in Primary Health Networks

The next component is policy and governance (Figure 1.2.3). There are three components. The first is the Department of Health, Disability and Aging, which provides policy and imposes

Figure 1.2.3. Policy and Governance Framework Supporting the Commissioning Capability of Primary Health Networks



Source: Liang et al. (2025).

planning, and reporting requirements for PHNs. The second component views PHNs as part of local health services, working to provide hospital services and build strong relationships. The third one is the national PHN body, which sets quality improvement and quality requirements for the PHNs. The three bodies under the policy of governance will provide enablement for PHNs to do the job, including co-commissioning services, enhancing digital health and technology applications that can benefit PHNs and commissioning work, and providing funding and investment to build capability. There is no point in saying that we want to train the staff. We would not see the improvement of organisational support without investing in them. By governance and leadership, the policy guidelines align with the PHN's work and support workforce development. This framework is used to mobilise different levels in order to build commissioning capacity to maximise the benefits of primary care that can meet the needs of the population.

Leadership and Managerial Capacity for Sustainable Change

So, we know that change is constant and inevitable. Traditional responses to problem or issues

often involve updating policies, delivering one-off training, or mandating new procedures. However, these approaches do not always work because what we truly want is behavioural change. We want people to change the way they do things. Behavioural change is complex and contextual. It is influenced by beliefs, values, and organisation culture, and how people experience change. During this change process, leadership, and management capacity is often the missing enabler.

To sustain healthcare transformation, we need competent leaders and managers who can do their work properly. Leaders and managers can drive change by modelling the desired behaviours that they want to see across their teams. They cultivate an environment where people feel empowered to take risk, experiment, and speak up. They should leverage data and analytics to track progress, identify areas for improvement and provide feedback to the staff. Most importantly, they can establish new routines and procedures that embed the desired behaviours into daily work. Do not assume that the changes you introduce will automatically change how people work. Leader must create an environment for them to demonstrate new behaviours, succeed in those changed environments, and provide regular feedback and recognition to reinforce positive changes and motivate teams to sustain the transformation.

To allow leaders and managers to do this, they need to be able to acquire the competencies required to demonstrate the leadership and management capability. These include globally recognised competencies such as communication, interpersonal skills, leading and managing change, and demonstrating professionalism relevant to their roles, using evidence to inform decision-making, managing human resources and operations, demonstrating knowledge of the healthcare environment and the organisation, leveraging knowledge of digital health and digital data management and leading individuals, teams, and organisations. But developing the competencies is not the only answer. Possessing competency does not mean they can apply the competency in the role. Therefore, organisations need to create an enabling environment, allow them to demonstrate and thrive as managers and leaders.

Several strategies can strengthen managerial capabilities. These are just four of them. Firstly, integrate competency frameworks into hiring and training to recruit the right people with the

right skills for the right positions. Secondly, we need to invest into organisations to manage performance, allowing timely feedback and enabling continuous improvement. Also, knowing what the development direction should be. Thirdly, we need to remember that managers and leaders need to be supported in the environment. Competency development should take place at the workplace so that they can apply it. Work-based learning opportunity, such as mentoring, coaching, and developing an effective feedback loop are critical. Fourthly, we also need to maximise external opportunities and learning. Not just sending them out for training. We should focus more on how to develop cooperative relationships across sectors and organisations to allow that learning to take place. By adopting these strategies, healthcare organisations can build the managerial capability needed to drive and sustain behavioural change across the system, ultimately enabling effective and resilient transformation.

Change Models and Effective Planning

We often talk about change, but do you know how well we plan for, monitor, and evaluate the change? Not that well- because we are always making changes in a rush. There are many well-tested change models that can guide our work. Here are a few of the commonly used change models that we can consult, including the McKinsey 7S Model (Peters & Waterman, 1982), ADKAR Change Management Model (Hiatt, 2006), Lewin's 3-Stage Model of Change (Lewin, 1947), and Kotter’s 8 Step Model (Kotter, 1996).

All of these models place people at the centre to ensure we create urgency for change, prepare people for the change, and create a vision for people so they can see the change benefits. So, they have the confidence that all the efforts are for the better. Also, we need to develop strategies from the beginning on how to support the sustainability of those changes to make sure people can work well during the change process, follow the change procedure and protocols, and we can continue to maximise the benefits of change.

Monitoring and Evaluation for Continuous Improvement

To assess our progress, we need to invest in monitoring and evaluation, and bear in mind that evaluation is not a linear process - it is a cyclical process. We start with: what do we want to know about how we are doing? We set the objective, and then we start to collect data - not just

one form of data. We collect multiple forms of data to allow data triangulation for more objective measurement. Then, we use that data and information to help us understand what went well or what went wrong, what actions we need to take to make changes, and what we can learn from this process. Only through this cyclical evaluation process that we invest in can we continue to grow and learn in ways that inform future design.

Sustainable Transformation Through Workforce and Digital Health

To achieve sustainable transformation in healthcare, we need to develop a workforce and organisational capacity. The workforce needs to have the skills, and organisation need to have the capability in support the staff in applying those skills effectively. We need to strengthen the collaborative partnerships within and across organisation, by fostering open communication channel. In a digital health context, we should see digital tools to enable our work rather than creating challenges. Many of my Ph.D. students have noted that working in the digital health context can be challenging. If we do not actively leverage the benefits of digital health, then we will be managed by it, leaving us overwhelmed by technology, including the rise of artificial intelligence (AI). We need to have systems and processes that align with the governance and policy that we have already arranged and ensure they meet the needs of the healthcare system. Most importantly, we need to invest in monitoring adaptation, evaluation, and learning to collect evidence. This allows us to improve our evidence-based practices, leadership, management, and patient care provision. These efforts enable continuous learning and improvement.

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1.3 Ageing Society and Primary Healthcare (PHC): Trends in PHC in Japan

Prof. Tomonori HASEGAWA

Professor, Toho University School of Medicine, Japan

Key Messages

- Primary Healthcare is essential for addressing the complex needs of ageing populations, particularly in Japan and other rapidly ageing societies. Nearly 30% of Japan's population is aged 65 or older, yet less than 5% live in nursing homes or assisted living facilities. Most elderly live alone or as couples, highlighting significant social and healthcare planning challenges.
- Since 2016, Japan's Community-Based Integrated Care System has aimed to integrate medical and long-term care through a user-centred approach. The system classifies care resources into four categories: self-help, mutual help, social insurance, and public assistance, emphasising community-based, non-institutional solutions for elderly care.
- Only 40–44% of providers are able to share incident-related information, and just 20% of hospitals assess risks for home or outpatient care. Enhanced coordination between primary and emergency care, wider implementation of standardised risk assessments, robust information-sharing systems across providers, and the strategic use of digital transformation to address workforce shortages are urgently needed to ensure sustainability.

Today, I would like to explore with you how primary healthcare should be designed in the context of a rapidly ageing society. Japan is, as Peter mentioned, one of the most aged societies in the world. The challenges we face today are likely to be shared by many countries in the near future. Through this presentation, I hope to offer insights and stimulate discussion on how healthcare system can adapt to meet the complex needs of older adults.

Health Challenges and Primary Healthcare for the Elderly

Let us begin by examining the major health challenges faced by the older adults. One key

feature is multimorbidity: many elderly individuals live with multiple chronic conditions. At the same time, activities of daily living and cognitive function often decline, increasing vulnerability, particularly due to conditions such as sarcopenia. In clinical practice, symptoms among elderly patients are frequently atypical. For example, myocardial infarction may occur without chest pain, and pneumonia may present without fever. These atypical presentations make emergency care particularly challenging. Moreover, elderly patients often require not only medical treatment but also welfare support and assistance with daily living.

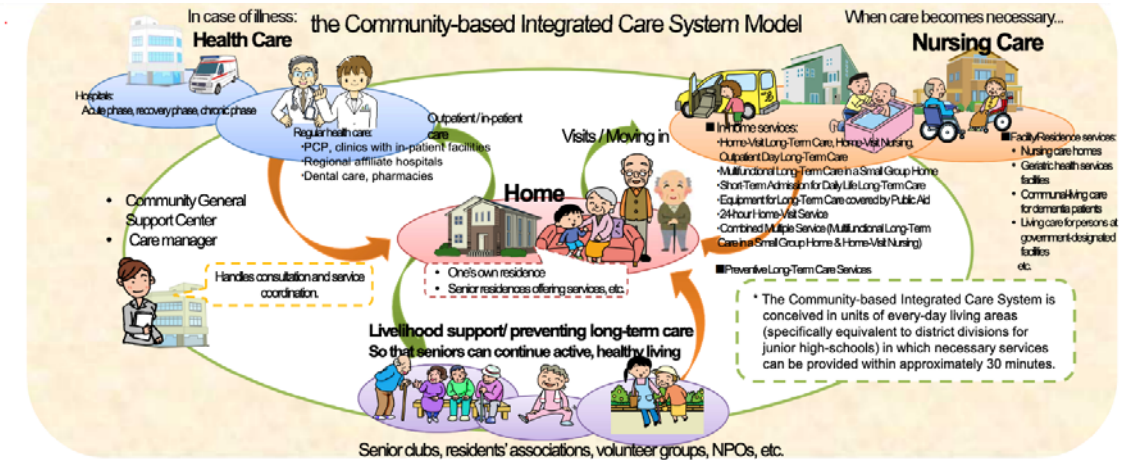
Primary healthcare is defined by five essential elements: first contact, continuity, comprehensiveness, coordination, and an understanding of the family and community context. These elements are especially important for elderly patients, whose needs are broad, long term, and closely linked to their living environments.

Japan's Community-Based Integrated Care System

In response to population ageing, Japan introduced the Community-Based Integrated Care System in 2016. This model is designed to enable people to continue living in their own communities even when they become frail or dependent. As illustrated in Figure 1.3.1, primary healthcare providers, hospitals, long-term care providers, and community resources are integrated within a single framework. The system emphasises coordination between medical and long-term care services and adopts a strongly user-centred approach.

One of the most distinctive features of this system is the classification of social resources into four distinct categories: self-help, mutual help, social insurance, and public assistance. Self-help refers to individual efforts to maintain health and independence. Mutual help involves informal community-based support, such as assistance from neighbours and family caregivers, relying on social capital and trust rather than formal systems. Social insurance represents institutional mechanisms such as public medical and long-term care insurance. Finally, public assistance functions as a safety net for individuals who fall outside insurance coverage due to poverty or eligibility constrains. The deliberate distinction between these categories-particularly between mutual help and social insurance-is a unique policy feature in Japan. It reflects the recognition that formal systems alone cannot meet all care needs and that

Figure 1.3.1. The Community-Based Integrated Care System Model



Source: Ministry of Health, Labour and Welfare of Japan (2017).

community-based, non-institutional support must be integrated into care planning.

Home Healthcare and Emergency Medicine Trends

The concept of "home" in home healthcare is not limited to a private residence; it also includes group homes and assisted living facilities. In sparsely populated rural areas, access to healthcare services is often limited, and relocation to apartment-style facilities is sometimes promoted. However, such facilities may impose financial burdens that exceed the cost of remaining at home.

The number of home healthcare patient has been increasing, particularly among older age groups. As shown in Figure 1.3.2, the proportion of home healthcare patients among outpatients has risen steadily over time.

Among individuals aged 75 and older, this proportion reaches 6.9%, compared with only 2.4% in the total population (Figure 1.3.3).

Figures 1.3.2. Trends in the Number of Patients

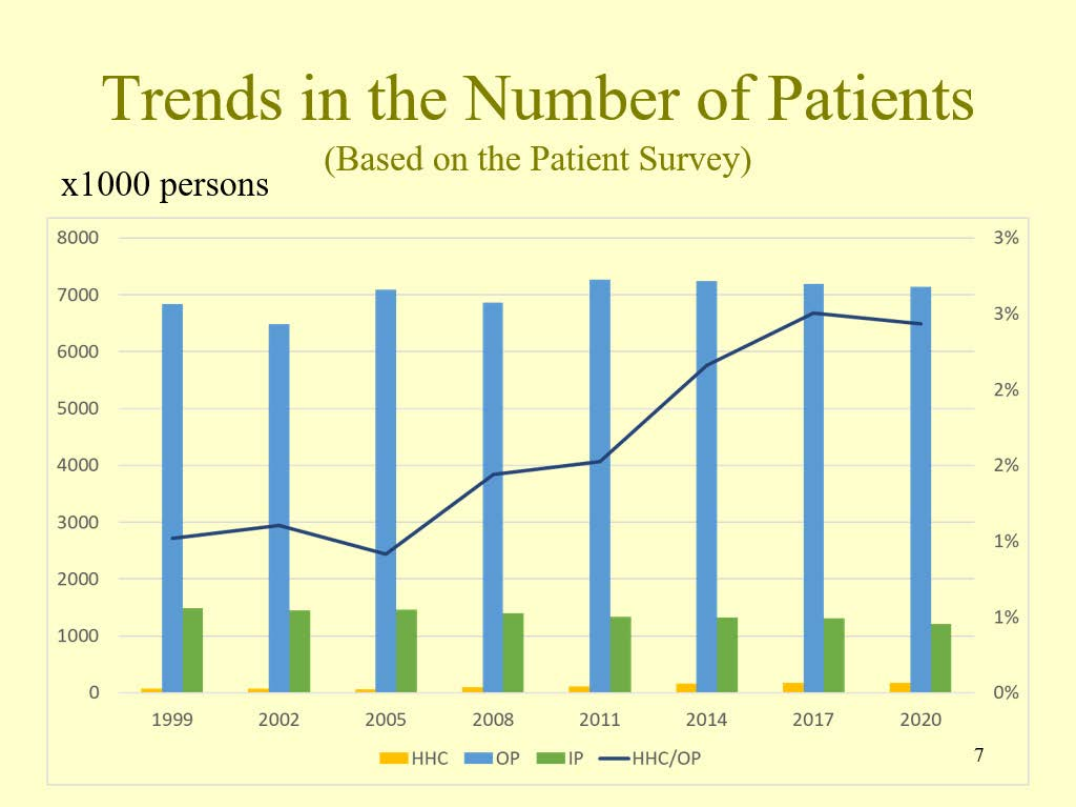
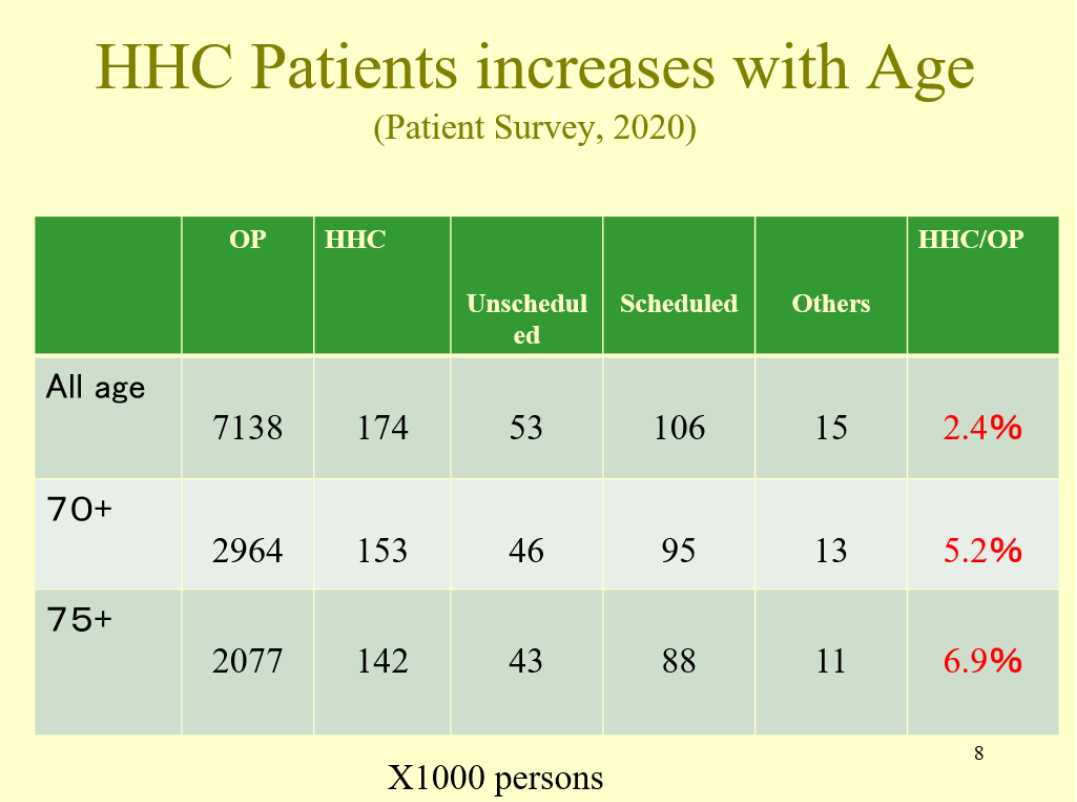


Figure 1.3.3. Home Healthcare Patients increase with Age



Turning to emergency medicine, ambulance transports among elderly patients have increased sharply between 2010 and 2020 (Figure 1.3.4). This increase is especially pronounced among those aged 65 and older. Importantly, however, the majority of these cases are classified as mild or moderate rather than severe.

Figure 1.3.5 presents the distribution of ambulance transports by disease groups. While cardiovascular and respiratory conditions account for a large proportion of cases, a substantial share is classified as “Others” or “Not identified.” This suggests that in many cases, a clear diagnosis is not established at the time of emergency admission.

A further challenge is the lack of prior information—such as medical history, medication use, or functional status—available when patients arrive at emergency departments. Consequently, elderly patients are often treated in acute care settings even when such high-intensity care may not medically necessary. This mismatch contributes to inefficiencies and places a significant burden on the healthcare system both in terms of cost and human resources. These findings highlight the urgent need for stronger coordination between primary and emergency care. A well-functioning primary healthcare system can triage and manage elderly patients in the community, thereby reducing avoidable emergency visits and optimising resource use.

Sustainability of Universal Health Coverage

Healthcare systems are currently undergoing a major paradigm shift. In the past, care focused primarily on treating acute conditions through isolated interventions at single facilities. Today, healthcare increasingly involves the long-term management of multiple chronic conditions, coordination among multiple providers, and respect for patient preferences. Accordingly, the role of physicians is evolving from that of sole decision-makers to team managers who coordinate multidisciplinary care. This shift underscores the importance of training healthcare professionals who can effectively deliver primary healthcare services.

Figures 1.3.4. The number of patients transported by ambulance by age group

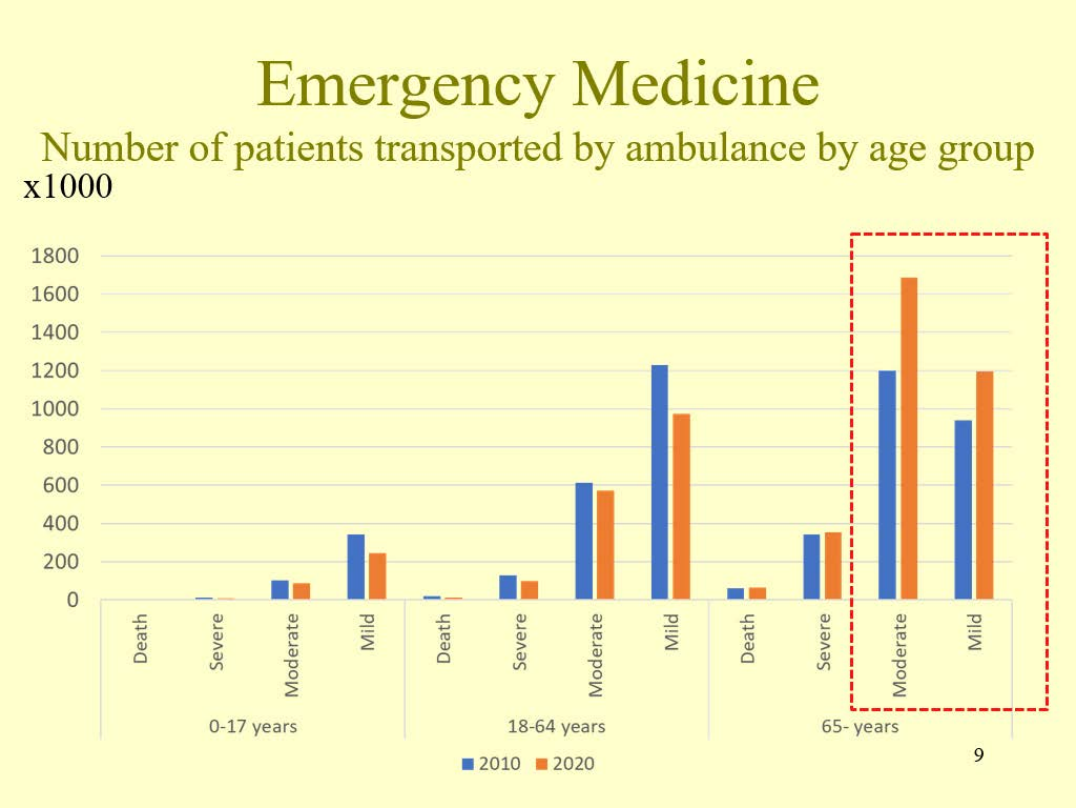
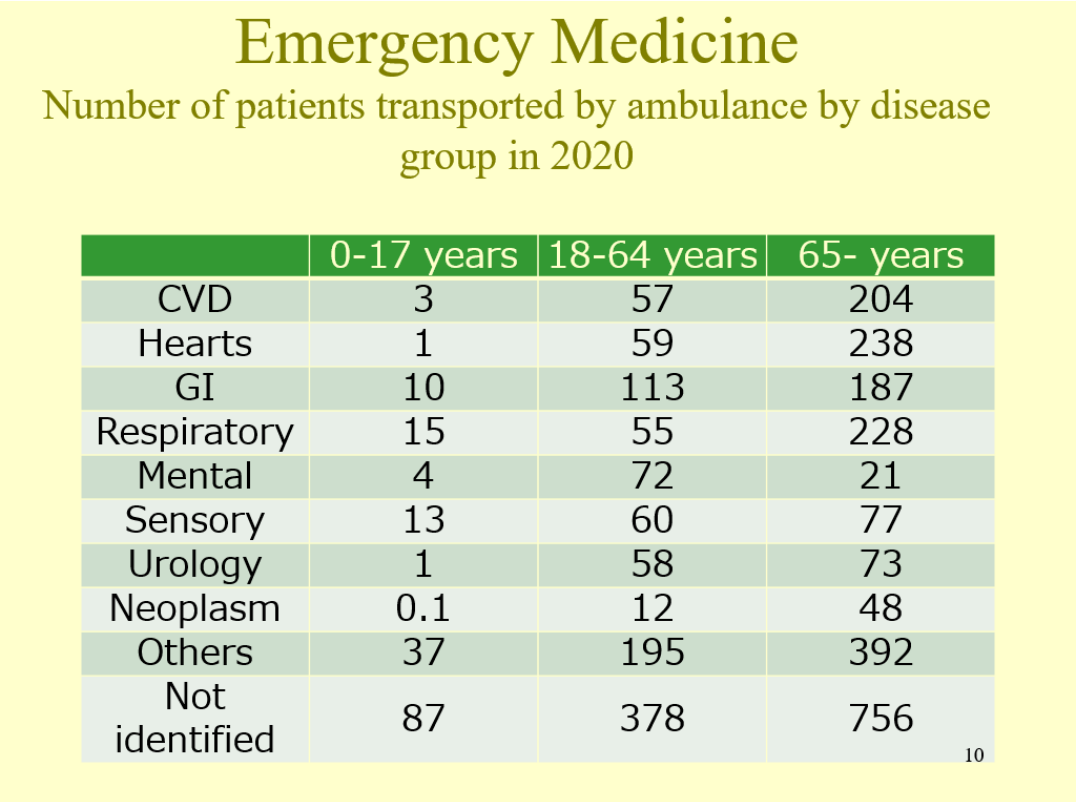


Figure 1.3.5. The number of patients transported by ambulance by disease group in 2020



	0-17 years	18-64 years	65- years
CVD	3	57	204
Hearts	1	59	238
GI	10	113	187
Respiratory	15	55	228
Mental	4	72	21
Sensory	13	60	77
Urology	1	58	73
Neoplasm	0.1	12	48
Others	37	195	392
Not identified	87	378	756

From a sustainability perspective, earlier policy efforts emphasised cost containment. However, as societies continues to age, there is growing recognition that certain expenditures are unavoidable and that accountability and value-based care should take precedence over strict cost control. Historically, healthcare spending has been disproportionally allocated to acute inpatient care, while investment in outpatient chronic care and home-based services has lagged behind. Human resource shortages remain one of the most critical challenges. In this context, digital transformation (Dx) is increasing viewed not merely as a tool for innovation, but as practical response to workforce shortages gaining attention as a possible solution. In Japan, Dx is increasingly seen not merely as a tool for innovation but as response to workforce shortage—facilitating monitoring, information sharing, and even robotic assistance in care delivery.

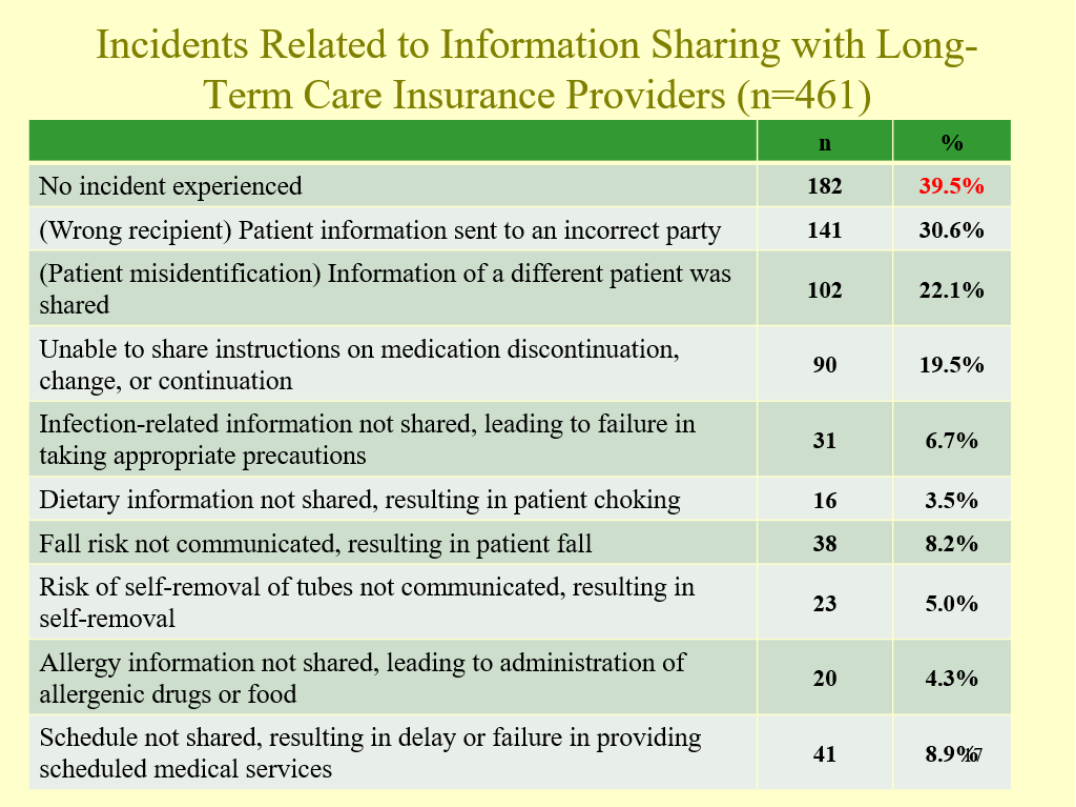
Quality and Safety in Primary and Home Healthcare

Quality and the safety in primary and home healthcare remain underdeveloped compared with hospital care. Many services are delivered in private homes, where peer review is limited and information sharing is often inadequate, despite the high-risk nature of patients and the involvement of family caregivers. There is an urgent need to establish new quality assurance mechanisms in these settings.

We conducted a national survey of 3,134 hospitals, of which 461 responded. Among the respondents, 32% reported providing home healthcare services. Home healthcare typically involves multiple providers, including visiting nurses, home helpers and day-care facilities. Nevertheless, only 40–44% of respondents reported being able to share incident-related information.

The most frequently reported incidents in home healthcare involved medication scheduling errors and communication failures, differing substantially from incident patterns in inpatient and outpatient settings, where medication, daily patient care and testing were frequently reported. Another major concern is inadequate information sharing across providers, including patient identification, fall risk, medication changes, infection status, dietary restrictions, and allergies (Figure 1.3.6).

Figure 1.3.6. Incidents related to information sharing with long-term care insurance providers.



Incidents Related to Information Sharing with Long-Term Care Insurance Providers (n=461)

	n	%
No incident experienced	182	39.5%
(Wrong recipient) Patient information sent to an incorrect party	141	30.6%
(Patient misidentification) Information of a different patient was shared	102	22.1%
Unable to share instructions on medication discontinuation, change, or continuation	90	19.5%
Infection-related information not shared, leading to failure in taking appropriate precautions	31	6.7%
Dietary information not shared, resulting in patient choking	16	3.5%
Fall risk not communicated, resulting in patient fall	38	8.2%
Risk of self-removal of tubes not communicated, resulting in self-removal	23	5.0%
Allergy information not shared, leading to administration of allergenic drugs or food	20	4.3%
Schedule not shared, resulting in delay or failure in providing scheduled medical services	41	8.9%

Only 20.6% of hospitals reported conducting risk assessments for outpatient or home healthcare patients. Although sensory impairment, cognitive decline, and housing conditions were more frequently considered in home healthcare risk assessments, overall implementation remain limited.

In our subsequent survey conducted in 2023, 11.5% of home healthcare patients or their families reported experiencing incidents. Medication errors and failures were the most frequently reported, followed by communication failures and diagnostic delays.

Conclusion

Primary healthcare, with its emphasis on community-based and comprehensive care, is indispensable in ageing societies. Japan's Community-Based Integrated Care System embodies many of the core principles of primary healthcare. However, rising emergency care utilisation and insufficient safety measures in home healthcare highlight the need for further reform.

Strengthening standardised risk assessments and promoting robust information-sharing mechanisms across providers are essential steps toward sustainable and safe healthcare delivery.

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1.4 Reforming Korea's Primary Healthcare Towards an Integrated and Sustainable Model

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Key Messages

- Despite universal health coverage, South Korea's primary healthcare system remains highly fragmented, hospital-centric, and over-dependent on private providers. With public institutions accounting for only about 5% of facilities and less than 10% of beds and physicians, service delivery is dominated by private actors. Combined with fee-for-service payment, lack of gatekeeping, and patient preference for hospitals, this results in inefficient referrals, regional resource gaps, and growing health inequities.
- Health promotion and preventive care remain systematically under-resourced and under-valued. The Fee-for-service (FFS) payment model offers little financial incentive for prevention, while many healthcare professionals are resistant to primary healthcare reforms that might reduce outpatient volume and income in private clinics and hospitals. As a result, there is a shortage of primary care doctors and a weak community-based preventive infrastructure—challenges that are further aggravated by rapid population ageing (around 20% aged 65 and over) and rising chronic disease prevalence.
- Recent reforms focus on building integrated, community-based primary care under stronger public stewardship. Priority actions include piloting value- and population-based payment models, scaling team-based multidisciplinary and chronic care management, expanding home- and community-care services, and establishing primary care centres that coordinate across providers. These changes must be supported by increased public primary care investment, clearer regional governance, and adherence to primary healthcare standards on access, continuity, and equity.

Introduction

My presentation background is focused mainly on one question: "Why does primary healthcare (PHC) reform matter in South Korea?" As Prof. Hasegawa mentioned, Japan introduced several

important policies around 2016, and we adopted similar ideas in Korea, developing our own "Korean version." I have often discussed how to implement more comprehensive and coordinated care within the Korean system, but this has been a very contentious issue. In this talk, I will first touch on some of the key reform measures, then what has been expected from them, and finally some implications and conclusions. Ultimately, all of this is really about how our public health system in South Korea has evolved and why it now needs reform.

Historical development of South Korea's healthcare system

In Korea, the modern health insurance system really begins in 1977 with employment-based insurance for workers in large companies. During the 1980s, coverage was gradually extended, and by July 1989 we had achieved universal health insurance under the National Health Insurance.

In 2000, all the separate company and regional funds were merged into a single payer, the National Health Insurance Service (NHIS), which created a more coherent structure and a stronger financial base. In 2008, Long-Term Care Insurance for older adults was added, responding to rapid population ageing and easing the care burden on families.

Since the 2010s, NHIS has continued to broaden benefits—bringing more services and diagnostics under coverage—and from 2018 has been adjusting the income-based contribution system to improve fairness. Institutionally, Korea now has a unified national health insurance plus long-term care insurance, yet many operational and equity challenges remain—especially in primary healthcare.

Healthcare utilisation challenges in Korea

On paper, Korea performs very well. Life expectancy is about 85 years for women and 81 years for men, and our healthcare utilisation is among the highest in the world compared with other OECD countries. However, this extremely high use of services also exposes several weaknesses.

Take telemedicine as an example. More than 10 years ago, pilot began in rural public health systems, and the national telemedicine network is already in place. With strong ICT infrastructure, once the National Health Insurance decides to cover a service, scaling up is technically straightforward. Yet, due to strong opposition from medical doctors' groups, nationwide implementation has been blocked, leaving the system underused.

Like Hong Kong, Australia, and Japan, Korea faces a growing burden of diabetes, hypertension, and multimorbidity, closely linked to rapid population ageing—about 20% of Koreans are now 65 or older. The issue is not a lack of medical resources; people can easily access and choose providers, even in remote areas. The problem lies in how the system is used.

If you ask a rural patient who their "personal doctor" is, they may point to a specialist at Seoul National University Hospital or Samsung Medical Centre, rather than a local clinic. This free provider choice, combined with strong fee-for-service (FFS) incentives, weakens coordination and encourages volume-driven care. Hospitals are preferred over primary clinics, referrals are frequently bypassed, and primary care providers are pushed to see more patients to maintain income. The result is a hospital-centric, high-utilisation system that achieves good longevity but also generates inefficiencies, rising costs, and widening health inequities.

Referral system failures and the problem of care stratification

Korea is already a super-aged society, and chronic diseases are increasing very rapidly. There is broad consensus that primary care must be strengthened—the government, professionals, and experts all agree—but the current system does not support this goal. There is no effective gatekeeping function, and people enjoy almost completely free choice of providers.

In theory, some referral documents are required, yet in everyday practice patients can go directly to specialists or tertiary hospitals without approval from a primary care doctor. Every district has a navigation or information system, but these tools do not prevent "doctor shopping". Some patients visit more than 10 clinics, hospitals, or outpatient centres in a single day. Access is extremely open, but there is almost no care stratification, which makes it very difficult to build a functioning referral system or a solid primary care foundation.

Healthcare system challenges: incomplete referral mechanisms, undervalued preventive care, and regional disparities

These patterns translate into very concrete healthcare system challenges. Many hospitals are overcrowded—particularly in Seoul and the surrounding Gyeonggi region, as well as some regional university hospitals. A friend of mine keeps calling me and saying, *"Please help me… I went to the university hospital and they told me I have to wait six months. Is there any way you can get me seen at your hospital sooner?"* Stories like this are common.

They reveal an incomplete referral system and a strong focus on quantity over quality—the number of visits and procedures often matters more than continuity or coordination. With well over 90% of facilities, beds, and physicians in the private sector, service delivery is effectively driven by private providers, which means "more patients" almost directly translates into "more income."

At the same time, preventive care is undervalued. Everyone agrees that prevention is important, but the insurance and payment structures do not reward it, and there are few incentives for genuine, team-based integrated care. As chronic conditions become more complex, integration is needed, yet regional gaps remain pronounced: most providers prefer to practice in big cities, not in rural or underprivileged areas. Access to primary care is therefore weakest where it is most needed, and vulnerable populations continue to face persistent barriers.

Several reforms have been attempted. In 2014, a chronic disease pilot programme was launched. In 2019, broader efforts at "healthcare integration" were introduced. In 2024, a presidential commission for healthcare reform was created. Nonetheless, despite these initiatives and political changes, including a presidential impeachment, many structural problems in primary care, referrals, prevention, and regional equity are still unresolved.

Institutional barriers to the advancement of preventive healthcare

Looking more closely at the current status of primary healthcare, clear institutional barriers to preventive care become visible. The main frontline providers are labelled as "primary care" clinics, but in reality, most are independent solo practices run by specialists. Under this configuration, coordination, continuity, and integration are inherently weak. On paper there is

a primary care referral system, yet in everyday use it is largely ineffective. Patients move freely among providers, and recent governments have even expanded this free choice for political reasons.

The result is a very skewed pattern of care. Even people living in remote areas will say, “My doctor is at Seoul National University Hospital,” rather than at a local clinic in Gangwon or on Jeju, near Hallasan. I myself tend to rely on SNU Hospital more than on providers in my own province; that personal example illustrates how the system is structured.

The payment environment further discourages prevention. Almost everyone uses primary care services, but reimbursement offers little incentive for health promotion or preventive care. Prevention often means fewer visits and lower income for providers. About 15 years ago, my research team developed a strong community-based health promotion programme and tried to implement it, yet many physicians opposed it out of concern that demand for clinical services would decline.

The outcome indicators are therefore quite paradoxical: survival is excellent and hospital use is very high by OECD standards, but chronic disease management remains poor.

In terms of delivery, roughly 85% of primary care services are provided by privately run, small solo clinics. Public health centres exist, but most doctors do not wish to practice there, and those centres mainly provide consultations, basic prevention, and public-health–related services rather than continuous clinical care. At the same time, overall physician density is relatively low, and recent attempts to increase the number of doctors has triggered serious conflict between the government and the medical profession. Structurally, the way primary care is organised, financed, and staffed still works against strong, prevention-oriented PHC—even though there is broad agreement that such reform is urgently needed.

Primary care doctor's shortage and structural workforce issue

In addition to these institutional constraints, there is a very serious workforce problem in primary care. At the core of Korea's health system issues is an insufficient primary care foundation—fragmented care, limited comprehensiveness, demographic pressure, and a persistent workforce gap, particularly a shortage of primary care doctors.

Primary care should emphasise quality, not just volume. In the UK, for instance, a GP might see four or five patients per hour. In Korea, a dermatologist friend of mine at SNU Hospital sometimes sees 130 to 140 patients in a single day, even in a top-level university hospital. Our university is private and highly ranked, but if we continue to respond to demand in this way—"more patients, more visits"—there is no space for relationship-based, continuous primary care. This is a volume-driven logic, not a public health logic, and it creates serious problems.

These concerns are not new. Primary care issues have been on the agenda since around 1993, yet many of the underlying challenges have never been fully resolved. Current reform efforts aim to shift more toward home care and community-based services, but there is strong resistance, especially from the medical doctors' association and from a service culture that still prefers quick, hospital-centred care.

What is needed now is a shift to value-based payment, effective implementation of primary care models, and deliberate expansion of the primary care workforce. Expert groups understand this quite clearly. The remaining question is how long it will take to translate that understanding into real structural change.

Essential healthcare packaging

When we think about how to address these problems, I often use the term "essential healthcare package" for Korea. In practical terms, this package rests on four pillars: fair compensation for primary care, expansion and better distribution of the health workforce, stronger local healthcare so people do not always have to travel to Seoul, and a malpractice safety net that makes it feasible for doctors to work in the community.

Countries such as Australia are debating almost the same issues, which shows that we are not unique in this regard.

On this basis, we have developed a reform model that aims to tackle these elements together. These topics now appear frequently in the Korean media, partly because the current government is pushing reforms without fully considering the economic incentives embedded in the system. At times, it almost seems as if creating a budget shortage is expected to generate more money later, but there is limited understanding of how market mechanisms and provider behaviour actually work. Defining and implementing the “essential healthcare package” correctly is therefore crucial.

Reform model and pilot programme in primary healthcare

Building on this essential package, we designed a reform model and pilot programme for primary healthcare, with five categories shown in Figure 1.4.1. Before going into detail, I usually summarise the five key reform elements for advancing integrated primary care in Figure 1.4.2, and then explain how each of these elements is translated into concrete pilot components.

First, chronic disease management teams provide more comprehensive evaluation and follow-up. As Prof. Hasegawa noted, even in Japan there are ongoing struggles with consistent personalised care, remote monitoring, and performance-linked payment. In our pilot, we attempted to go a step further by linking payment to outcomes such as blood pressure control and the presence of an annual care plan.

Second, we implemented a holistic home and community care pilot. We learned a great deal from the Japanese experience and adapted the sequence to the Korean context, organising home visits, linking with long-term care, and providing home hospice services.

Figure 1.4.1. Reform models and pilot programmes for primary healthcare in South Korea

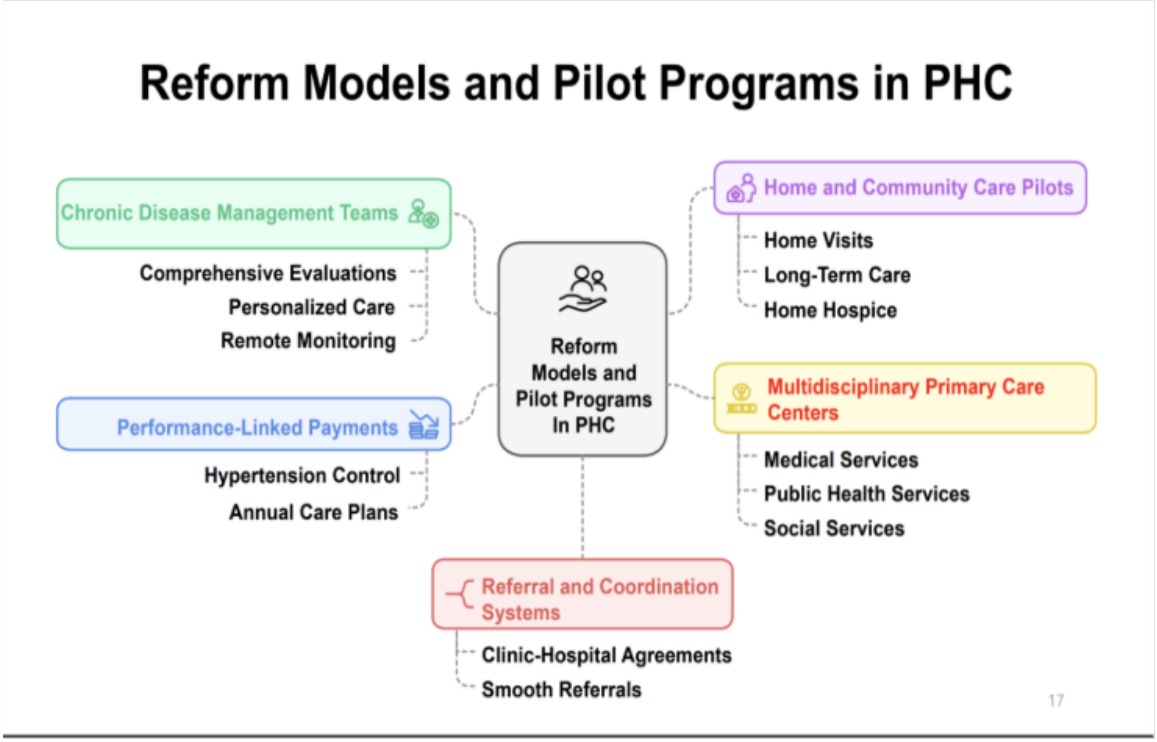
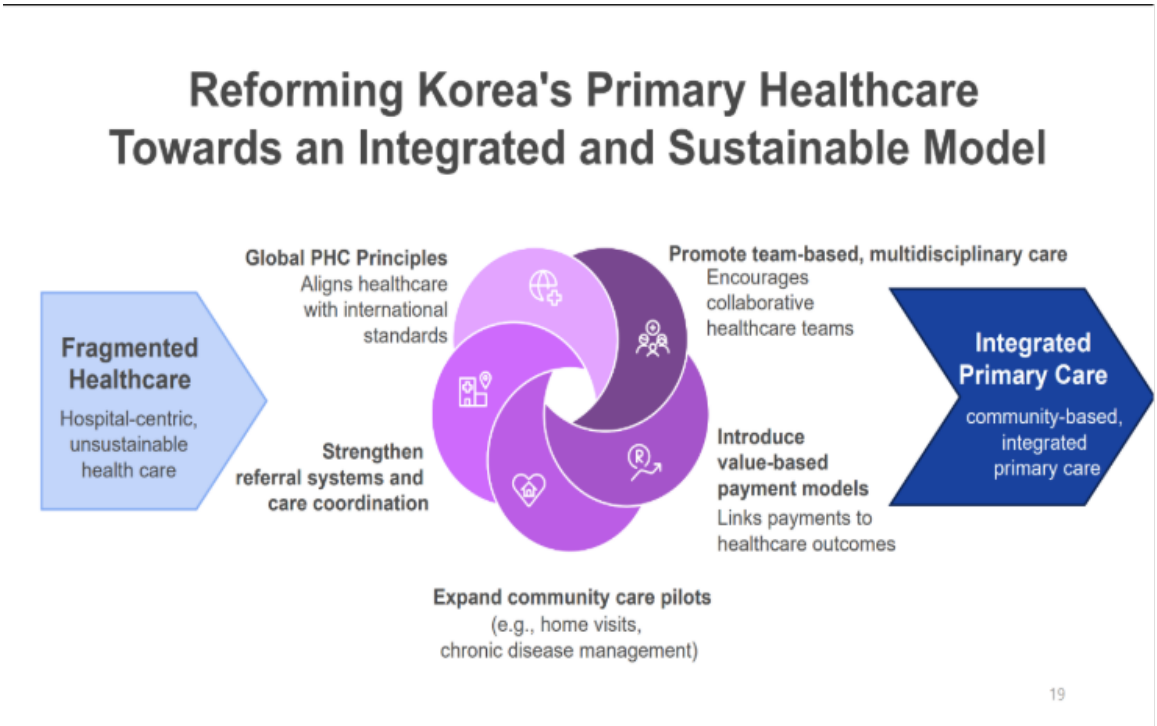


Figure 1.4.2. Five key reform elements for advancing integrated primary care



Third, we are developing multidisciplinary primary care centres that bring together medical services, public health functions, and social services in one place, rather than leaving them in separate silos.

Finally, we are attempting to strengthen referral and coordination, for example through clinic–hospital agreements and so-called “smooth referral” pathways. In reality, many of these agreements are still quite symbolic—sometimes they exist mainly so that we can report to the insurance corporation, “Yes, we referred five patients today from the clinic to the hospital.” On paper, the system looks integrated, but in daily practice it is still far from a truly functional network.

This is what I often describe as the cycle of sustainable healthcare. When policymakers talk about primary care reform, most countries follow a very similar sequence: prioritise PHC, implement PHC, evaluate outcomes, collaborate regionally, and then improve continuously. Korea has been following some version of this roadmap for about 15 years, yet many of the same problems keep returning, which tells us that design and implementation have not been strong enough.

To close, let me briefly summarise the direction of reforming South Korea’s PHC towards an integrated and sustainable model. Our current system is fragmented, hospital-centric, and ultimately unsustainable. With the five key reform elements shown in Figure 1.4.2, the aim is to move step by step toward integrated, community-based primary care that can actually deliver continuity, coordination, and equity on the ground.

1.5 Building Resilient Primary Healthcare system in the Asia-Pacific Region: Lessons from Research and Practice

Mr John RASA

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Key Messages

- The Asia-Pacific region faces significant challenges in building resilient primary healthcare systems due to diverse economic conditions, geographical barriers, vulnerabilities to disasters, emerging diseases, and governance that favors curative care.
- The WHO's APSED III framework emphasises the importance of three interconnected priorities, including enabling policies, early detection systems, and capacity building, which are critical for effective threat response and healthcare system resilience.
- Resilient healthcare systems must absorb, adapt, and recover from various stresses, including pandemics, natural disasters, and workforce shortages, while delivering equitable access to primary healthcare services. This requires political commitment, regional collaboration, sustainable financing, digital health innovations, and community engagement.

We basically experienced a pretty jarring event in the pandemic in 2020, which raised serious questions about whether both our acute and our primary care systems were ready to respond to emergencies and whether they were, in fact, resilient. I am going to characterise resilient primary healthcare systems as ones that can effectively absorb, adapt and to recover from stresses placed on them by pandemics, climate events, cyber-attacks, as well as systemic workforce shortages, which many countries in the Asia-Pacific are experiencing, while continuing to deliver equitable services, particularly essential primary care services (Organisation for Economic Co-operation and Development, 2023).

However, the Asia-pacific region faces unique challenges in building resilient primary healthcare systems due to diverse economic conditions, geographical barriers, and

vulnerabilities to natural disasters and emerging infectious diseases. Edelman et al. (2025) basically point to these persistent governance and structural barriers to reforming the primary healthcare sectors, including the current vertical approaches to healthcare planning and delivery, as well as a healthcare workforce that is shaped more towards curative care. So, if you are building a resilient primary healthcare system in the Asia-Pacific region, there are some political, operational, and strategic dimensions that you need to consider in order to address existing structural vulnerabilities all the time, leveraging the lessons from research, recent reforms and crisis responses in the Asia-Pacific region.

Framework for Resilience: Three Interconnected Priorities

According to the *Asia-Pacific Strategy for Emerging Diseases and Public Health Emergencies*, there are three interconnected priorities that we need to consider (World Health Organisation [WHO], 2017). This is the framework that I want to propose today. The first is the infrastructure, financing, resourcing, personnel-enabling policies that deliver essential services. Secondly, systems for early detection and early warning allow Asia-Pacific countries to assess and characterise potential risks. Thirdly, the capacity and readiness to respond to emerging threats, and enable uninterrupted delivery of essential services at the same time. I want to examine some of the key strategies associated with each of these 3 priorities that include integrating services, strengthening workforces, empowering our communities, and aligning policies with long-term sustainable goals.

For the first one is in relation to enabling policies and resources around strengthening governance and leadership. Comprehensive policy and system reforms such as China's healthcare system overhauls, demonstrate the impact of good and coordinated efforts in improving healthcare delivery and financing, and contributing to health system resilience. Similarly, in Singapore, policy adherence between different levels of government strengthens the implementation efforts through a very integrated approach. But to sustain these efforts, long-term political commitment is essential as seen in Japan and Australia's sustained investment and universal health coverage. Similarly, Thailand's primary healthcare reforms under the universal coverage scheme that improved primary healthcare access for all. The research by the Centre for Asia-Pacific Resilience and Innovation (CAPRI) proposes Taiwan's establishment of a policy coordination unit under the Executive Yuan (Tsai et al., 2024). This

unit aims to address identified fragmented care through centralised leadership and improve interministerial coordination.

But in tandem with centralised leadership, based on the principles of subsidiarity, decentralised decision-making is required in the implementation of strategies. This has proven effective in countries like Vietnam, Thailand, and Malaysia, allowing local health authorities to respond quickly to regional needs. For instance, Vietnam's grassroots health network played a crucial role in pandemic responses due to centralised leadership with local flexibility. Another required element of resilience is strategic preparedness, with long-term planning frameworks to build capacities to withstand service disruptions. We see this in Malaysia and other Asia-Pacific countries using climate-resilient health strategies aligned with the *Asia-Pacific Strategy for Emerging Diseases and Public Health Emergencies*. In fact, at the moment it is in its third generation of public health emergency protocols. It is important that required roles are clearly defined across all tiers of government and across all government departments. Additionally, local communities need to be involved in the service continuity planning right from the beginning. Finally, evaluation of emergency planning success needs to be driven by performance metrics, and we can see this in Vietnam with its health equity dashboards tracking geographic and socioeconomic disparities in service access.

The next area is around sustainable financing mechanisms. A resilient primary healthcare system requires sustainable financing mechanisms to effectively absorb and recover from the shock of a pandemic or climate crisis. Mechanisms that have been identified in the research around mixed financing models- combining public health, social insurance, and targeted user fees- that have shown promise in South Korea and Taiwan. Strategic purchasing models that have prioritised primary care services are helping countries like Vietnam optimise limited resources. Malaysia's 2023 health white paper prioritised preventive care and wellness, backed by value-based funding models (Ministry of Health, 2023, p. 44). In fact, these are trying to be promoted in Australia at the moment as the way forward. Thailand's “One Province, One Health Budget” model reduced duplication by aligning national and local health priorities. There have also been blended financing mechanisms like the Asian Venture Philanthropy Network, where climate health funding is combined with philanthropic and private capital. Social impact bonds have supported dengue fever prevention in Indonesia, while Australia's rural incentive

programme attracts and retains primary healthcare workers in remote areas of Australia. Outcome-based funding, such as Cambodia Rural Sanitation Development Impact Bond, allows investors fund sanitation projects and be repaid by reduced disease costs.

Early Detection and Warning System

Asia-Pacific continues to suffer from data fragmentation. According to the National Institutes of Health, achieving full interoperability across all Member Asian State present many challenges and still has a long way to go. At the moment, the focus is more on strengthening regional cooperation and establishing mechanisms for health information sharing. The COVID-19 pandemic certainly underscored the importance of digital health innovations like electronic medical record (EMR) systems, telemedicine, and other digital health solutions. Jeong et al. (2024) argued last year that the lessons from the COVID-19 pandemic was that implementing clinical workflows supporting both in-person and virtual care enhanced accessibility and continuity of care in primary care. Similarly, telehealth platforms have in fact overcome many of the geographical barriers in both Pacific Island nations and remote parts of China. The Pacific Heads of Health (PHoH) maintain Pacific Island medicine tracking, cut health stock outs by 52%. The blockchain medicine tracking in Papua New Guinea reduced counterfeit drugs from 18% to 3% of supplies. Additionally, mobile health applications have improved medication adherence and follow-up care in India and the Philippines. In South Korea, the artificial intelligence (AI)-driven primary healthcare system supports early disease detection, prevention, and management. Malaysia's AI-powered human resource management system (HRMS) predicts workforce burnout three months in advance. Indonesia's malaria prediction models improved outbreak anticipation by eight weeks. And finally, Australia's Health Tracker informs 89% of primary healthcare funding decisions in remote Northern Territory clinics, improving equity of care.

Continuity of care and part of the capability

The third area relates to continuity of care and capability building. During the COVID-19 pandemic, we gained a deeper appreciation for maintaining uninterrupted access to primary care services during disruptions, ensuring continuity of care through telehealth, remote monitoring, and decentralised service delivery. It was critical for rural and vulnerable

communities. In Australia, it is good to see that some of these things are going to be continued. According to Noknoy et al. (2021), Fiji and Macau reorganised services rapidly during COVID-19 using interdisciplinary teams and telehealth. And of course, what became highly critical to business continuity was protecting health workers, as well as ensuring vaccination and personal protective equipment (PPE) supplies. Another area is around preparedness and adaptive capacity. Secondly, the research shows resilient primary healthcare system need robust business continuity plans, backup systems, incident response plans and continuous staff training. Services need to be able to shift rapidly between in-person and virtual care models, especially in emergencies. But primary healthcare systems also need to balance chronic disease management with emergency preparedness. For instance, a case study published in the *British Medical Journal* (BMJ) noted that the Philippines' healthcare providers networks (HCPNs) coordinated public and private facilities for both continuity of care and integration of chronic care (Tan-Lim et al., 2024). Fiji and Macau reorganised services rapidly during COVID-19 through interdisciplinary teams and telehealth (Noknoy et. al., 2021).

Also, early warning systems and emergency protocols, like those used in Japan and Philippines, minimise disruption during natural disasters. There are regular simulation exercises that enhance coordination between health facilities during crisis, along with strategic stockpiling of essential medicines and supplies to ensure continuity of care during pandemics and climate emergencies. Singapore's primary healthcare pandemic readiness protocols integrated contact tracing, which helped manage COVID-19 outbreaks, while Fiji's Climate-Resilient and Environmentally Sustainable Health Care Facilities (CRESHCF) can withstand cyclones and floods.

The third element is around integrated planning and decentralised service delivery. Primary healthcare systems should be able to integrate preventive, curative and promotive services while allowing local adaption. For instance, Sri Lanka's decentralised primary healthcare model ensures high immunisation and maternal care coverage. Edelman et al. (2025) points to Vietnam's grassroots healthcare networks, which shifted focus to primary healthcare prevention, and are supported by district-level planning. Singapore's comprehensive primary healthcare models address prevention, acute care and chronic disease management, and have been shown to be relatively successful.

Public-private partnerships have expanded service availability in urban areas of India and Indonesia, while Malaysia's Enhanced Primary Healthcare (EnPHC) initiative in 2017 created integrated care networks and care coordinator roles. Noknoy et. al. (2021) pointed to the Philippines during COVID-19, where the private sector supported implementation of plans for mass testing, the establishment of community quarantine sites, and the procurement of personal protective equipment (PPE). Noknoy et al. (2021) also highlighted the importance of gatekeeper systems. These are used in countries like New Zealand, Thailand, and Fiji, which have significantly improved pandemic outcomes by streamlining referrals and preventive care. This resulted in much lower COVID-19 mortality rates compared to Japan and the Philippines, where acute care facilities became overwhelmed.

Workforce flexibility and capacity building

The next elements are workforce flexibility and capacity building. During COVID-19, the challenging working conditions that we witnessed in the healthcare system such as long working hours, high-risk environments, and elevated stress levels, resulted a substantial toll on the mental health of healthcare workers. Consequently, the healthcare sector continues to experience high turnover rates, particularly among nurses. But maldistribution of healthcare workers, especially doctors, remains a problem, and this is particularly evident in Australia. A well-trained, motivated, and equitably distributed health workforce is absolutely essential to achieving primary healthcare resilience. Additionally, 50% of Asia-Pacific island nations still fall well below the WHO threshold of 23 skilled healthcare professionals per 10,000 people. As a result, chronic staff shortages and burnout remain widespread problems, as highlighted by CAPRI's report on Taiwan's post-pandemic struggles (Tsai et al., 2024).

However, there have been a number of successful approaches, such as South Korea's staff burnout prevention programme, which introduced mandatory rest periods and mental health support for clinicians. Similar support has also emerged in Australia as an outcome of the pandemic. Also, task-shifting and task-sharing in rural areas of India and Indonesia have helped address physician shortages. while South Korea’s chronic disease management programmes have trained non-specialists to expand access. Community health worker programmes in the Philippines help manage chronic diseases, while Bangladesh and Nepal have successfully extended the reach of primary healthcare in remote areas, improving maternal and child health

outcomes. Fiji's nursing practitioners 2030 upskilling programme resulted in a 300% increase in rural diagnostic capacity, which is incredible. Addressing workforce shortages through training programmes is vital. So educational reforms that emphasise primary care competencies and rural practices have improved workforce distribution in Australia. Still, there is a long way to go. Staffing models may be adaptable, upskilling in digital tools building capacity to redeploy resources during high-demand periods.

Equity, Inclusivity, and Access

Resilient healthcare systems require that marginalised, vulnerable, and remote communities have equitable access to primary healthcare. This includes culturally appropriate care co-designed with low-literacy, rural, and indigenous peoples, and incorporates digital inclusion initiatives. Examples include Malaysia's mobile clinics that serve indigenous and remote communities, while Nepal's female community health volunteers that bridge gaps in marginalised areas.

Another key area is community engagement and trust. Research shows that resilient systems require active participation and trust-building with communities. New Zealand's Māori-led primary healthcare initiatives improve indigenous health outcomes through culturally sensitive care and cultural adaption of services to respect local beliefs and practices, which has improved uptake in diverse settings. Village health volunteers in Thailand and steering committees in Vietnam were pivotal in COVID-19 for surveillance and chronic disease management, demonstrating the value of localised health networks. Comprehensive, community- integrated primary care models addressing prevention, acute care, and chronic disease management have shown success in Singapore and Australia. Similarly, India’s Comprehensive Rural Health Project (CRHP) demonstrates the effectiveness of community-driven care by training local health workers and emphasising preventive care, significantly reducing infant mortality and improving overall community health. Mental health models like South Korea’s Workplace Mind Paramedics programme lowered employee suicide rates by 29%. While chronic disease networks like Tonga's church-based diabetes management programme achieve 68% patient retention. And Sri Lanka's diabetes police using recovered patients as educators, boosted treatment adherence by 74%.

Another key is the climate health integration. According to an estimation of the United Nations Development Programme (UNDP), the economic losses from extreme weather events cost Asia-Pacific countries 57 billion US dollars in 2022 (UNDP, 2024). So, what is needed is a climate health integration response, involving three elements. First, infrastructure such as Bangladesh's floating health clinics that are solar powered and serving 2.3 million people annually in flood prone regions. Second, what is needed is protocols like New Zealand's heatwave response algorithm, which reduced heat stroke deaths by 33% in 2024. Lastly is financing, like the Asian Development Bank (ADB)'s Climate Action Catalyst Fund (CACF), which approved a $500 million loan to the Philippines in 2025 and was prioritised to develop cyclone resistant primary healthcare facilities (ADB, 2024).

Regional Collaboration

Regional collaboration is one of the most important elements of this model. It centres around the need for regional collaborative efforts, much like those coordinated by the Centre for Asia-Pacific Resilience and Innovation, facilitating the necessary knowledge sharing and collective action to address common primary healthcare challenges across the region.

By considering this resilience framework- and adopting the appropriate strategies, such as involving and enabling policies and resources, early detection systems, and building capacity. They need to be adjusted for the different context of Asia-Pacific countries. The region can strengthen primary healthcare systems. We need greater political conviction to ensure the better preparedness to respond to inevitable future health challenges, with improved staffing and far more investment in prevention.

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1.6 Advancing Health Equity in Primary Healthcare: A Social Justice Approach

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Key Messages

- Māori and Pacific peoples experience persistent health inequities, including shorter life expectancy and higher rates of chronic diseases, driven by social determinants such as income, education, housing, systemic racism, and colonial legacy. These inequities are compounded by workforce shortages in health services, especially in rural and underserved communities.
- Policy reforms embed the Treaty of Waitangi and Māori co-governance principles within health systems to co-design services, prioritising equity of access for Māori and Pacific peoples, and emphasising patient-centred care tailored to cultural, spiritual, and socioeconomic needs. Also, it promotes workforce development, particularly through expanding the nurse practitioner role and investing in Māori and Pacific health workers to provide culturally safe, community-based care.
- Syndemic theory focuses on power and inequality as drivers of risk and marginalisation for populations and communities. Applying this theory promotes intersectional understanding of layered vulnerabilities, along with workforce capacity development, culturally competent education, and integrated, collaborative care models, resulting effective health equity.

Mr Rasa has just talked about some of the work done in New Zealand on Māori health and equity. I heard a mention of remote indigenous communities, where I have spent many years working as a remote area nurse. I would like to talk about some of the key things. I am going to focus mainly on workforce and policy, using New Zealand as a case study, which is some of the work I will be contributing for *The Lancet Commission*, particularly in terms of what New Zealand can offer.

The perspective I am taking is about vulnerability and health risks. Some vulnerable populations have more health risks than other. And when we talk about health risks, we often look at the term called intersectionality, where you may come from an indigenous background or a refugee background, you may have faced trauma, you may be an older person, or you may have a disability. These different social categories often determine heightened vulnerability and should not be overlooked, and they deserve healthcare investment and attention. This is often where most of our health inequities sit, and they can be mediated through upstream intervention and through attention to intersectoral collaboration and systems thinking. Particularly, this is about the intersectoral collaboration between health, social services, civil society actors, and policymakers, as Mr Rasa mentioned the importance of politicians and multi-ministerial activities. This also includes non-government organisations (NGOs) in New Zealand, iwi (tribes, Māori communities), as well as Pacific communities and stakeholders, both within and beyond the health domain.

Applying Syndemic Theory

As a medical anthropologist and nurse, I have been increasingly looking at syndemic theory. It focuses on power and inequality as drivers of risk and marginalisation for populations and communities. These dynamics play out around the world. They manifest in cities and rural areas, with new migrants, refugees, indigenous communities and others who face structural disadvantage. There are layered complexities that include historical factors such as immigration, discrimination, racism, and colonialism. They also include structural inequality, which may be caused by the paralysis of various countries. In fact, I was recently at a Ministry of Ethnic Affairs symposium, where it was suggested that there are only 26 democracies left in the world today. We have all seen the onset of climate change and global warming, as well as disaster taking place globally. And of course political tensions are driving geopolitical strategies, and some of the current conflicts being waged globally. In syndemic theory, the root of this is really lies in sociology and anthropology, in terms of symbolic interaction. When we look at the lived experience of illness from the communities themselves and their families, these may be communities of people with disabilities or they may be communities of indigenous people, but they know best their own experience. It highlights- how the social determinants, including economic, environmental, and psychological factors, come together. So, health is socially informed, economically mediated, and environmentally determined, and

shaped by people's behaviours that play out in light of their own circumstances, social capital, and social agency. And how our health determinants, such as housing, poverty, and displacement, magnify vulnerability. Again, intersectionality broadens avenues for understanding interconnected causes and consequences. So, there is a duty on clinicians, researchers, and policymakers to use these structural frameworks that consider a multitude of factors, political policies, and economic determinants, to ensure holistic, responsive interventions. And these draw on the work of human rights and social justice approaches, which also sit within legal frameworks and within some international governance bodies.

World Health Report Insight

The World Report on Social Determinants of Health Equity was recently released (World Health Organisation, 2025), and I am focusing on two pillars, particularly focus on building and retaining. I heard Mr Rasa talk about the importance of building and retaining the workforce, particularly an equity driven workforce. And that includes recognising the role of formal and informal caregivers, not just our health systems, but the informal caregivers that support those systems: the family caregivers, the support systems, the church, the temple, the mosques, and the groups that come out in disasters and provide care. They also are needed. Importantly, it is necessary to address pay, gender and representation gaps in the workforce. Some of our most vulnerable populations have a workforce that is paid the lowest such as aged-care health workers or home carer.

So, we need to develop capacity across the sectors. The health workforce does not just sit in one sector. We have more of an interprofessional workforce that can work in health, for example, for people who probably have a social work background, who can understand access to specific allowances and a broader social framework.

Education and Cultural Competence

Education includes both the training and ongoing development of our health workers and our medical workers, but also the education of our communities, labour, and local governments, as well as developing a culturally and linguistically indigenous health workforce, which is the focus of my presentation today, in the form of a case study from New Zealand on workforce

development. Secondly, my focus is policy action, and that is critical that we integrate the social determinants. I see globally in my work. More and more universities, health operators, health systems, hospitals, and public health institutions have accountabilities, and they are answerable for addressing the determinants of health, embedding health equity in strategies, policies, laws, and emergency plans, and prioritising this in all approaches. The New Zealand strategy for primary healthcare (PHC), prioritised social determinants along with some of unique aspects of our Māori co-governance. As a result of our treaty, the Treaty of Waitangi, and established coordinated mechanisms and co-design, co-governance, co-action research type of initiatives (Orange, 2021). And I heard Mr Rasa talk about the importance of Co-design. I think we are all echoing much of what's been said.

Turning our attention to New Zealand's current health strategy, it has emphasised equity of access, ensuring fair access to health services for all, particularly our Māori and Pacific peoples, who in our largest city-Auckland Region, constitute up to 35% of our communities with large and young families (Stats NZ Tatauranga Aotearoa, 2024). And we also see a growing number of migrants and refugee communities, making approximately another 30%, and estimated to grow to about 40% in the next 10 years (Collins, 2024).

And our underserved communities, again, another pillar of PHC, require patient-centred services that are tailored to their unique needs. These include intersectoral needs, such as health beliefs, health practices, cultural needs, spiritual needs, and economic needs of families, individuals, and communities, all while valuing dignity participation and well-being. We need community-based, responsive services close to where people live, reflecting values and practices. This is very important, particularly in remote areas of Australia, Canada, and many other remote areas in the world. We need prevention and early intervention focused on health promotion, disease prevention, and timely care. That is our general practitioner (GP) services, our clinics, and our mobile units, and to some extent our digital health and our telemedicine. Also, integrated and collaborative care is part of the work that we are currently doing for The Lancet Commission, which focuses on the collaboration and integration of social and medical care across providers, including GPs, Nurses, practice nurses, nurse practitioners, midwives, and NGOs that combine both biomedical and mental health approaches. Mental health is a big part of our health lens at the moment due to COVID-19, which has considerably magnified in

social healthcare, encompassing people's wellbeing and social connectedness. We know there are epidemics of loneliness, especially among older people globally, and this is an area that many of my international students are working on cross-culturally. Again, returning to workforce: we need a sustainable workforce that is well-trained and well-distributed, including nurse practitioners and community health workers.

Health Inequities in New Zealand

New Zealand was founded on a treaty —Treaty of Waitangi —which was signed in 1840. Its purpose was to establish a bicultural agreement between Māori, Māori leadership, iwi, Māori chiefs, and the British Crown. It was written in both English, and Māori. All our government institutions, our schools, our hospitals, our universities, our kindergartens, and many large businesses found their main principles and mission statements on some of these key principles, such as partnership. These principles all have Māori names, of course (Orange, 2021).

Participation and protection, working together with respect, involving decision-making, and safeguarding Māori rights, land, languages, and culture are central. I am bringing that in because that is a key component of workforce training. Today, the Māori Indigenous population are about 17.7% of New Zealand's population, and considerably more in Auckland, our largest city (Stats NZ Tatauranga Aotearoa, 2023c). We also have other ethnic groups, including Pacific people and increasing number of migrants, particularly from China and India. The median age for our Māori population is 25 years; for Pacific peoples, it is 23; and for Europeans, it is 41 (Stats NZ Tatauranga Aotearoa, 2023a; 2023b; 2023d).There have been recent acts in parliament, including the Whānau Ora and the He Korowai Oranga Māori health strategy, which have noted that Māori much like indigenous Australia, and continue to experience significant health disparities compared to non-Māori, including higher rates of chronic disease, diabetes, and respiratory illness. Life expectancy is shorter. Social determinants, particularly income, education, housing, and access to culturally appropriate healthcare, continue to drive inequities across the lifespan between Māori and non-Māori populations. Systemic racism and historical colonialisation have been found in numerous recent studies as contribute factors. We now have a number of Māori politicians in Parliament and in the current government, as well as Te Pāti Māori, an opposition party that represents Māori. But there is still a long way to go.

Pae Ora - Healthy Futures Act

Recently, the Pae Ora Healthy Futures Act prioritised particular aspects of primary care for Māori, including sustainability, proactive care, preventive care, and urgent and unplanned care. Pacific people also face high levels of communicable disease. Many Pacific Islanders came to New Zealand over the past 100 years, particularly from Tonga, Fiji, Samoa, and Ranatunga, and they now make up a large part of our population as well as our nursing, our medical, and allied health workforce. Their life expectancy is lower than the average of New Zealand, and again, similar to that of Māori. Some barriers include language challenges, limited access to services, and healthcare models that are not necessarily person-centred for Pacific peoples. Policy reform is now targeting Pacific models of health for the future.

The New Zealand government, like many governments globally, has experienced several economic downturns. It is well known that we have one of the largest inequity gaps in the developed world, and that gap still persists today, marked with considerable wealth and considerable poverty. The child poverty still exists, and we still face very expensive housing and we are in the middle of quite a severe recession with high unemployment. Again, in terms of syndemic theory and intersectionality, these factors affect some of our most vulnerable population the most. There have also been a number of acts around indigenous health, and reports have shown that New Zealand rates quite low on educational inequality and also a significant unmet need for GPs in terms of Māori Pacifica compared to Europeans. Going back to syndemic theory, healthcare outcomes in New Zealand are influenced by these barriers, and poor neighbourhoods and rural communities experience worse healthcare outcomes where many of our Māori and refugee population live.

Primary healthcare delivery

Our service delivery models include general practitioners and public health organisation, Māori and Pacific providers, and services designed by Māori for Māori. “Nothing about us without us” is one of the slogans led by those communities and community NGOs. Our workforce consists of GPs, nurse practitioners, and Plunket nurses-which is a unique model, working with under infants and mothers. Besides, home visit is a historical development that has been proven to be very successful in early start. Community nurses, Kaiāwhina, Kaiārahi and the broader

Māori and Pacific health workforces (Health New Zealand, 2022, p. 26). Also, there is increasing attention to social and community service integration as a model for the future, where services are not dispersed but integrated and seamless on how they operate.

Some recent studies report initiatives, including free GP visits for children under 14 (Sheridan et al., 2023). But an ongoing challenge in New Zealand, as in Australia and elsewhere, is workforce shortage, particularly among doctors and nurses, especially in general practice, remote and rural communities, funding equities, and the need for more integrated models of care.

Future Priorities for Health Workforce

Some of the future priorities in the New Zealand health workforce include growing the Māori and Pacific workforce, integrating social and medical care, digital enablement and artificial intelligence (AI) systems, like Hira programme. Mental health services and data sovereignty with Māori partnerships is a key issue and the key principle is that it must reflect our founding Treaty. They must reflect Treaty of Waitangi, community voice, and equity first.

Nurse Practitioner Workforce Development

One of the very successful initiatives is the rapid and recent growth of our nurse practitioner workforce, which was introduced in 2001 to enhance care in rural and high-needs areas. It is funded through our public health organisation, and their roles are found in GP. Nurse practitioners work autonomously in diagnosing, prescribing, and managing care. They have limited prescribing rights. They mirror medical doctor' roles in many areas, and their presence improves access in underserved areas. The preparation to become a registered nurse involves earning a nursing degree, followed by 3 to 4 years post-degree clinical experience, and then completing a one-year intensive master's programme that includes significant clinical practice.

They are particularly strongly represented in PHC, aged care, and early childhood services. Their mandate is to directly address the social determinants of health, work collaboratively across health and social sectors, pharmacists, social workers, Māori and Pacific cultural

navigators, and to provide person-centred, accessible care. They can practice legally, and their regulations fall under the Nursing Council of New Zealand. Their target populations include Māori, Pacific peoples, rural residents, and migrants. They also practice within specific Māori models of care, such as Kaupapa Māori models and the Pae Ora (Healthy Futures) Act.

Some of the key roles include PHC and GP, chronic disease management, youth and early childhood services are a high priority, particularly focusing on mental wellbeing. Whānau Ora, which means family-centred care. Mental health and addiction services focus on drug and alcohol treatment and support. Other services include rural and remote practices, as well as older adult and palliative care support for frailty, dementia, and end-of-life care.

We need to strongly address the social determinants of health. In terms of housing and living environments, some services such as home visits and community assessments can address issues like overcrowding. Regarding food security, New Zealand has a programme in which 70% of primary and secondary schools provide free meals at lunchtime. Primary and secondary schools should strive to help address health inequities, and provide dietician referrals. They can also work as integrated, social and medical care supporters, helping with pensions, incomes for disability and living allowances. Improving health literacy and language accessibility for our migrant and Māori populations helps reduce stigma and provide culturally safe psychological care, and collaborates with Whānau Ora health services and Pacific navigation services. It also provides ‘Whakawhanaungatanga’, which represent respect, honouring, and empowering indigenous communities to be part of the solution and to support self-determination.

So, just briefly returning to syndemic theory in the context of New Zealand’s PHC, social determinants, and social justice, it is about understanding how these theoretical, workforce and policy approaches can make a difference by addressing the social determinant factors that contribute to worsening health outcomes (Singer et al., 2017). Nurse practitioners globally, and particularly within our New Zealand model, are well positioned to offer holistic care that addresses complex health and social determinants, and their intersectionality. Their integrated care, equity-focused roles, and collaborative approach, are crucial in a syndemic context, and also the commitment of cultural safety.

There have been a number of studies that highlight the importance of Māori nurse practitioners, who collaborate with multidisciplinary teams and Whānau Ora to support continuity of care in home and community settings. They draw on Māturanga Māori to navigate Māori language and understanding how to work within Te ao Māori and Te ao Pākeha healthcare systems, while bringing Māori beliefs meaning into service delivery. They play a very important role in promoting access for underserved and rural populations. In terms of workforce, some recent studies have shown that it is a very valuable and viable workforce, although there is some issue with professional identity and role negotiation during the transition. The collaborative, interprofessional approach has shown to be very helpful (Adams et al., 2022). Also, nurse practitioners often have fewer resources and less support than doctors. They tend to practice in areas where it is hard to get GPs to relocate. They focus strongly on working with cultural advisor, iwi, and Pacific partnerships. The nurse practitioner programme has been shown to enhance Māori community satisfaction. Education and communication have emerged in recent studies as one of the key factors for nurse practitioner integration (Adams et al., 2022). The good news is that this year, the New Zealand government has prioritised PHC and put a considerable investment in both general practice models, as well as 120 nurses will be funded to train as nurse practitioners specialising in primary care (New Zealand Government, 2025). We are a small country, so, I know in Hong Kong or China that may seem a small number. However, these places will be fully funded to train nurse practitioners in primary care. This investment strengthens the nurse practitioners' workforce by enabling them to deliver complex care, prescribe medications, promote continuity and accessibility, and reduce waiting times. It represents the largest investment we have seen in the primary health sector. The funding will cover all training-related costs, as well as costs such as employer cost to backfill nurses, clinical supervision, study time, and mentoring.

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1.7 Transforming Primary Healthcare in Hong Kong: Strategies for Equitable and Comprehensive Care Delivery

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Key Messages

- Hong Kong's dual-track healthcare system faces significant challenges, including an ageing population (projected to reach 37% of the total population aged 65 or over by 2066), a rising chronic disease burden (project to reach 3 million by 2039), and severe workforce shortages (with a projected shortfall of 8,700 nurses by 2030), all of which are exacerbating pressure on public hospitals and demanding a shift toward prevention-focused, community-based care.
- The Primary Healthcare Blueprint emphasises the importance of improving the overall health status of the population through prevention-oriented, community-based, family-centric care, and early detection and intervention. Some key programmes and initiatives, including the Elderly Health Care Voucher (EHCV) Scheme, Chronic Disease Co-Care Programme (CDCC), and the Family Medicine Clinic (Formerly named General Outpatient Clinic) Public-Private Partnership (FMC PPP) Programme, have shown effectiveness in shifting toward a community health system.
- Strengthening the integration of Chinese medicine, development of multidisciplinary teams and family doctor model, and the use of artificial intelligence (AI) and technology, including AI-based screening and Electronic Health Record Sharing System (eHealth), enables equitable and comprehensive care delivery and universal health coverage.

First of all, I will briefly review the Hong Kong healthcare system, its status and its challenges. Hong Kong has a dual-track healthcare system. We have the public sector and the private sector. The public sector serves around 90% of the population, while the private sector serves around 10%. Hospital Authorities (HA) is the largest healthcare institution in Hong Kong. One of its principles is to ensure that no one is denied adequate medical treatment due to lack of financial means. This is stated in the HA ordinance.

This morning Dr Libby Lee also mentioned that we have a Primary Healthcare Commission under Health Bureau, established in 2024. The Commission oversees strategic planning, service provision, standard setting, and quality assurance of primary healthcare services and also the training of the primary healthcare professional, as well as oversees the service planning and resource allocation. All strategic purchasing activities are supported by the Strategic Purchasing Office.

Overview of Community and Public Health Services

Our services in the community, includes community healthcare and public health. We have different service providers, such as the Department of Health (DH), which mainly provides public health service that focus on health promotion and disease prevention. Hospital Authority has Family Medicine Clinic (former name is general outpatient clinic) services. They focus on secondary prevention and chronic disease management, also provide episodic case treatment to the public. We also have a large centre, namely Family Medicine Integrate Centres (FMIC) (Former name is Community Health Centre (CHC)). This is different from the District Health Centre (DHC). FMIC is under Hospital Authority to provide one stop multi-disciplinary, primary care service to the public. Also, we have the Community Health Service (CHS), which provides extended care and home care to the public, this service is under Hospital Authority. We also have the DHC, which was newly established in recent years operated by non-government organisations (NGOs) to provide community-based primary healthcare services through public and private partnership and medical-social collaboration. DHC's service covers three levels of prevention: primary prevention, secondary prevention, and tertiary prevention. Furthermore, we also have Occupation Health Centre, which provides services to the public, mainly for work-related injuries, work-related illness, and promoting occupational health and safety in the workplace. We also have other NGOs to provide non-profit primary healthcare services in the community. The last one is private institution, which provide private primary healthcare services. You can see that services in community-based primary healthcare are fragmental. Now, government have lot of works to do to streamline the services and migrate some services from the DH to community-based primary healthcare system to avoid duplication of the services.

Current Primary Care Practice in Hong Kong

The current situation is that people seek primary care services mainly for curative purposes rather than for health maintenance. Only a few private practitioners provide preventive care based on the family-doctor model. There is an over-emphasis on curative care but not preventive care. The concept of preventive care and wellness promotion is not widely practiced in the community, including health risk assessments, screening and surveillance of health problems, health education, and healthy lifestyle promotion.

Key Challenges in Hong Kong's Healthcare System

Hong Kong healthcare system is facing a lot of challenges. This morning, Prof. Samuel Wong also mentioned that we have an ageing population, an increasing burden of chronic diseases, a shortage of professional staff, and rising community demand. These factors are putting pressure on the quality of care in public sectors and hospitals. The unprecedented surge in demand for healthcare services over the next 25 years will place a heavy burden on Hong Kong's healthcare system.

Let us focus on the ageing population. There were approximately1.5 million people aged 65 and over in Hong Kong in 2021 (Census and Statistics Department, Hong Kong Special Administrative Region, 2023). By 2066, projection estimate this will rise to 36.6% of the population (Census and Statistics Department, Hong Kong Special Administrative Region, 2017). Even though Hong Kong is a very small city, it continues to have one of the highest life expectancies in the world.

The problem with the ageing population is chronic disease prevalence, with 2.2 million people living with chronic diseases in 2021. The projection to 2039 will be 3 million. It is a heavy burden to the Hong Kong healthcare system (Health Bureau, The government of the Hong Kong Special Administrative Region of the People's Republic of China, 2022).

For the shortage of medical and nursing manpower, the Hong Kong government conducted a manpower review in 2017. The report pointed out that there would be shortfalls of over 1,000

doctors and 1,600 nurses in Hong Kong by 2030 (Food and Health Bureau, Hong Kong Special Administrative Region Government, 2017). But this survey was done before the 2019 social movement and COVID-19. After COVID-19 and the social movement, many nurses and doctors emigrated to other countries. It is estimated that the shortfall of nurses in 2030 will be 8,700 (Legislative Council of the Hong Kong Special Administrative Region of the People's Republic of China, 2024). Even though we have already amended the ordinance to allow non-locally trained nurses to apply and come to Hong Kong under limited registration, there are still many nurse vacancies in Hong Kong.

Regarding community demand, if you look at the Hospital Authority specialist out-patient clinic waiting time such as ophthalmology, the waiting time is over 3 years, around 183 weeks. This means the public needs to wait more than years to see a specialist doctor (Hospital Authority, 2025b). To solve this problem, an equitable and comprehensive primary healthcare delivery is necessary. Primary healthcare is the first level of care. We provide services to individuals and families to help them control their health, and re-focus efforts on prevention rather than treatment. There is a role for primary healthcare (PHC) and we can use more resources from the community setting to support it. The World Health Organization (WHO) defined primary healthcare as a strategy to achieve Health for All (World Health Organisation & United Nations Children's Fund, 1978). The scope of PHC is very broad. We provide services for health promotion, disease prevention, and curative and rehabilitative care in the community setting. The PHC is very important to reduce the burden on Hong Kong’s healthcare system.

Core Pillars of Primary Healthcare

There are three pillars of PHC. One is equity, which is a very important element. This implies that all people have an equal opportunity to access healthcare services. When designing services and policies, it is important to consider how to ensure every Hong Kong citizen has equal access to the healthcare system.

According to WHO, one of the ultimate goals of PHC is to reduce the social gaps in health, which is equivalent to implement universal coverage reform (WHO, 2025). When we develop

policies, and decide on services, we should consider how to expand coverage to let every Hong Kong citizen has equal access to the healthcare system.

Nursing Roles in Primary Healthcare

When it comes to public healthcare, the coverage is very broad. As a nurse working in the primary healthcare centre, we focus on four main aspects. The first one is health promotion; we provide health education to our public and promote a healthy lifestyle. Disease prevention is another important area. We provide preventive care, such as health assessments to identify diseases early. Thirdly, if you already have a disease, the medical service provider offers reasonable treatment in an early stage. The fourth is community rehabilitation. For people such as disabled patient who have lost normal function, when they return to the community, we provide services to restore their function as much as possible, so they can maintain their ability and quality of life in the community.

Currently, we emphasise community-based PHC. Our nurses work directly in the community, providing coordinated care and serving the local population within their living community to make healthcare services more accessible. We provide continuous care that prioritises both safety and quality. This care covers both acute and chronic conditions, offering comprehensive support from prevention to treatment and rehabilitation. All of these are included in our scope of services. By focusing on the needs of community, community-based primary healthcare services can improve access to care, reduce the health disparities, and promote overall health and well-being.

Levels of Prevention in Primary Healthcare

PHC provides three levels of care in the community setting. The first level is primary prevention. We do a lot of works in health promotion and disease prevention, emphasis on life-course preventive care. We have launched new services for women’s health, and will commence elderly health, mental health, and child health etc. Secondary prevention involved screening at-risk individuals, controlling risk factors, and early interventions, particularly for preventing chronic diseases. For example, in the Hospital Authority’s family medicine clinic services, nurses are involved in the Risk Assessment and Management Programme (RAMP) to

control chronic diseases such as stroke and hypertension. The third level is tertiary prevention, which includes rehabilitation, preventing complications, and improve quality of life. DHC already provided community rehabilitation services since 2019.

Historical Developments and Initiatives

Over the past 40 years, Hong Kong government has released many documents aimed at improving the PHC and has strengthened coordinated primary healthcare services. The Primary Healthcare Commission was established in 2024 to promote the concepts of PHC. It has also developed the primary care directory and reference framework to guide healthcare practitioners and the public in delivering quality PHC. These efforts aim to empower the patients and citizens through health education and health promotion activities. The government also promotes the concept of PHC through different channels and media, and engages the public sector to help alleviate the burden on the public healthcare system, including Elderly Health Care Voucher (EHCV) Scheme and the Public-Private Partnership (PPP) programme.

In 2018, Our Hong Kong Foundation (2018) reviewed the Hong Kong healthcare system and suggested that Hong Kong should establish community and primary care hubs and networks to coordinate community and primary healthcare services. It suggested using DHC as hubs to coordinate the primary healthcare service under Hospital Authority, private sectors, NGOs and DH. This approach would support hospital and primary healthcare integration, medical-social integration and PPP.

Strategic Directions in Primary Healthcare

There are some core strategies for transformation. The first is strengthening policy framework and infrastructure, such as the Primary Healthcare Blueprint. This morning, Dr Libby Lee mentioned shifting the focus from treatment to prevention, launching the Chronic Disease Co-Care Programme (CDCC), inviting more doctors to join the service, and creating a standardised directory for the Primary Care Registry (PCR). The Primary Healthcare Blueprint emphasises improving the overall health status of the population through prevention-oriented, community-based, family-centric care, and early detection and intervention (Health Bureau, 2022).

There are five key recommendations in the Primary Healthcare Blueprint (Health Bureau, 2022). First is establishing the system. The community-based primary healthcare system is currently under development, promoting the concept of "Family Doctor for All" and emphasising intensive management of chronic diseases—not only within the Hospital Authority but also in the community. The second recommendation is strengthening governance. The Primary Healthcare Commission has already been established, and the PHC system has been introduced. The referral mechanism between family doctors and hospital specialists has also been enhanced. The third is coordinating resources, such as the EHCV Scheme and other subsidised services, as well as coordinating land resources and facilities for community healthcare. Fourth is reinforcing manpower, including enhanced training for primary healthcare professionals such as family doctors and nurses. This morning, I met Dr Libby Lee, who also mentioned that nurses need enhanced training. They can play a key role in the family healthcare system by providing primary healthcare services to the public and strengthening the role of primary healthcare professionals. The final recommendation is improving connectivity, establishing a one-stop electronic healthcare system and analysing health data for policymaking.

District Health Centres and the new Role of Nurses

Our healthcare services not only in the Hospital Authority, but they also now extend the service to the community at DHCs, providing coordinated community health and acting as a resource hub. Nurse working in the DHC play a leading important role to provide service for our public. DHC is not only in one centre, but they are also in 18 districts. Each district would have one main centre and the satellite-centres to provide the services in the community. The role of nurses in the DHC includes public health advocator, health coach, service planner, interventionist with non-pharmacological modalities, and trainer for new generation nurses.

Key Programmes and Initiatives in Primary Healthcare

The government already has a web-based database - Primary Care Directory, with three sub-directories. Now only doctors, dentists and Chinese medicine practitioners, occupational therapists (OTs) and physiotherapists (PTs) are included. Members of the public have access to this database to obtain information of service providers. Besides, the Primary Healthcare Blueprint mentions a programme to progressively migrate PHC services under DH to the

district-based community health system. Now, the community health system has progressively implemented the phase one, including the integration of women's health services into systems. But it still has another service where we migrate to the community healthcare system in the future.

The CDCC Scheme is mainly for eligible person to use the private healthcare providers through DHCs to access management of chronic diseases. The Family Medicine Clinic (Former named General Outpatient Clinic Public)-Private Partnership (FMC PPP) Programme is one of the important programmes. The Hospital Authority has an important role in taking care of underprivilege group (Hospital Authority, 2025a). If the public is under this group, we will provide service in the Hospital Authority.

For the healthcare services, now it is changed from the disease-centred to health-centred, from the hospital specialty care to the community-based primary healthcare service, focusing on the population needs, proactive and planned, and prevention-focused care. The expected outcome of the equitable and comprehensive primary healthcare service delivery is to improve the public physical, psychosocial health outcome and reduce the chronic disease complication, increase self-awareness and self-management, improve the People's functional status, status and improve their quality of life. The FMC PPP Programme is currently under review. It will migrate with CDCC programme in 2028 (Maw, 2025). EHCV Scheme is still under review, people age 65 or above would be eligible to use the voucher. The CDCC pilot programme is for the eligible person who can use the public centre for disease screening and treatment, government would provide subsidy to the private sector family doctors who provide the CDCC service. Hoping every Hong Kong citizen have their own family doctor to take care their health.

DHCs now have one important role, which is to support family doctors and promote Life Course Preventive Care. The government also has the cancer screening programme subsidised, such as colorectal cancer, cervical cancer, and breast cancer screening programme.

The Use of Artificial Intelligence and Technology in Primary Healthcare Settings

Artificial intelligence (AI) technologies are used to improve the coverage and quality of care. For example, during COVID-19, the staff used remote consultations to assist patients in remote areas or our clinic. We also use the telecare tools to improve the coverage of the service. Also, using AI-based diabetic retinopathy screening detection in primary settings to improve the early detection. We also continue to enhance the Electronic Health Record Sharing System (eHealth).

Integration of Chinese Medicine and Development of Multidisciplinary Teams

Hong Kong citizen recognised and trusted Chinese medicine. So, the integration of Chinese medicine into community-based primary healthcare service is important, they can provide service at the DHC, and working as one team members of multidiscipline team.

Conclusion

In conclusion, equity gaps still persist, and future directions should emphasise sustainable financing, global collaboration, and strengthening the family doctor model through the Primary Care Registry. By leveraging policy agility, technology, and community engagement, Hong Kong can transition toward a resilient primary healthcare system that balance innovation with equity, ensuring Health for All in alignment with the Alma-Ata Declaration.

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1.8 Promoting People-Centred Primary Care: Building a Framework for Policy Development

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Key Messages

- Primary healthcare systems face significant challenges, which can be summarised as the '3 B's": the burden on patients from multimorbidity, burnout among healthcare staff due to unsustainable workloads, and imbalances between what drives healthcare costs and how healthcare systems are designed to respond.
- Strengthening primary healthcare is urgently needed worldwide, requiring a cultural shift from disease-focused care to whole-person, advanced generalist medicine, as advocated by international bodies and supported by system-level evidence.
- Successful change relies on tailored interventions, workforce development, and system redesign: UK initiatives like the TAILOR programme (for polypharmacy), CATALYST (to address burnout and build advanced generalist skills), and new models of complex care (PACT and TIMES) demonstrate how research, collaboration, and patient engagement are essential to improving outcomes for both patients and healthcare professionals.

I have spent 25 years working on developing person-centred primary care in the United Kingdom (UK). I am hoping to be able to offer you some insights from what we have done, but also to learn from what you are doing, to think about how we can do things differently.

The Need for Strengthening Primary Healthcare

Strengthening primary healthcare (PHC) is an international priority. We have known what we need to do for a long time. The World Health Organization, the Declaration of Alma-Ata, and most recently the Declaration of Astana have been telling us we need to refocus our healthcare

on the needs of whole people, not just managing diseases. We know how we need to do that through the distinct specialty of medical generalist care, and whole-person medical healthcare. And we know why we need to do that from research like the study led by Kringos, who has looked at healthcare systems around Europe and compared the strength of PHC in different countries in Europe (Kringos et al., 2013). They have shown that the strongest primary healthcare systems are also the most efficient, effective, and equitable healthcare systems. But if we are going to achieve this, we need to fundamentally change what we are doing in healthcare, and change is really hard. We need to shift the direction of our healthcare systems from focusing only on disease and expensive hospital care. But it is not just about doing the same thing out in a different location or even with different staff. It is about changing what we do, how we do it, what we prioritise, and what we expect to get out of it. It is a culture shift to advanced generalist medicine that I have been studying for 25 years, developing the concepts on how we do that. I am going to try and share a few of those with you today and invite you to think about how we could learn together on how to do that.

The 3 B's: Burden, Burnout and imBalance

I am going to start by thinking about why we must deliver that change because modern healthcare, particularly the transactional model of specialist, disease-focused care, is increasingly becoming part of the problem. So, let me show you what I mean by thinking about the 3 B's of "Burden", "Burnout" and "imBalance".

Starting with the first B - Burden: The burden on the patient. Healthcare needs to change because our patients' needs have changed. We very rarely see acute illness and injury as the main problem. Increasingly, in my practice, we are seeing patients who live with chronic illness and multiple chronic conditions, or multimorbidity but they are also dealing with the healthcare burden that comes with that. For example, the review by Buffel du Vaure (2016), published in the *BMJ Open*, showed that a typical person living with multimorbidity, following the guidelines and advice on managing their medicines, seeing their health professionals, making their lifestyle changes, and attending all their appointments, would typically spend 80 hours carrying out these tasks every month. That is 20 hours a week, - half a full-time job in the UK. Overburdened patients get anxious, concerned, confused and seek more help. So, we end up with a revolving door where people are coming into health systems, being sent out by us and

then coming straight back because they do not really understand what they are trying to do. In the UK, we are offering 31 million GP consultations every month. That is more than half the population seeing their GP or practice every month, and we are still nowhere near meeting demand.

Moving on to the second B - Burnout: The demands of our patients place a huge and growing workload on our staff and they are burning out. In the UK, we are losing staff, struggling to recruit new staff, and especially struggling to retain them when we do. Perhaps this analysis, just published in The BMJ by Martin et al. (2025), gives us an indication of why. Martin looked at how many hours of work clinician would need to follow guidelines for their patients. For a typical GP or a primary care clinician, seeing a typical day of patients with multimorbidity, and chronic illness, if that clinician followed all the rules in the guidelines, they would need 27 hours a day to deliver that care. We are setting up our clinicians to fail. It is a source of moral injury, as well as a hugely inefficient and ineffective way to run a health service.

About the third B - imBalance: This data comes from our Office for Budgetary Responsibility, and it is a health economics analysis of what is driving the rising costs of healthcare systems in several countries around the world (Licchetta & Stelmach, 2016; Wilson et al., 2020). Again, the detail does not matter, but the report looked to explain what was driving the “excessive” demand on healthcare spending in the UK and elsewhere. The report looked at three factors contributing to rising healthcare costs. Firstly, demographic change, which is the changes in our population. Secondly, GDP and external economic factors beyond health systems’ control. Thirdly, the intensity and innovation delivered by healthcare. The report showed that biggest contributor to rising healthcare spending in the UK is not, as expected, the effect of demographic changes but instead the intensity and innovation of the work we are doing. In other words, the choices we make in healthcare systems about how we deliver care are the problem, not the demographic factors such as ageing in the UK. And the reason this matter is because it is not the same in every country. In German for example, it is demographic factors such as population trends that are driving the costs, with very little attributed to just more technical care being delivered within the system. Where do we think Hong Kong stands in this analysis?

All 3 of these B's highlight that the very thing that we have designed and intended to improve health and well-being – namely healthcare - is now contributing to the problem, reducing people's health for daily living. So, we need to change our healthcare systems.

Delivering the Culture Shift

How can we deliver that change? How can we deliver that culture shift? In the UK, we have had a series of policy reports calling for the shift from disease-focused to whole-person-focused healthcare. Person-focused healthcare is not just about being kind, empathy, or having good relationships with our patients - good communication skills, and soft skills. It is actually about setting different goals and expectations for what healthcare can deliver, which really means changing our healthcare delivery model. We still need specialist medicine just as much, but we also need more advanced generalist medicine, which is the distinct expertise of whole-person clinical practice. It means shifting from a model of healthcare practice focused on what you know to how you use what you know. As described in an editorial in *The New England Journal of Medicine* a few years ago, it is a shift from the knowledge of clinical practice to the wisdom of clinical practice (Wenzel, 2017).

Tackling Burden: The TAILOR programme and Problematic Polypharmacy

Let me put some flesh on the bones of that by talking about some examples that we are doing in the UK. First of all, let us look at the issue of tackling burden, using the example of problematic polypharmacy and our project - the TAILOR project. Polypharmacy, the prescribing of multiple medicines to a single person, can be appropriate and really helpful. But as I have already highlighted, for a growing number of individuals, it can also become problematic because of the burden it creates, not just from side-effects, but also from the work involved in collecting, taking, and monitoring medicines, and so on. At a given point, the burden of using medicines starts to outweigh any potential benefits. That is what we mean by problematic polypharmacy. When the multiple medicines prescribed to an individual are inappropriate because the intended benefit of improved health for daily living is not realised. And that is something we looked at in the TAILOR report.

Our previous research explored what drives the overprescribing and problematic polypharmacy experienced by our patients. We identified four factors – the 4P's of permission, prioritisation, professional skills and confidence, and performance management. Health professionals were avoiding tailoring medicines to the individual in front of them, because it meant stepping away from guidelines and clinical decision. They told us that they thought they did not have permission to do that, it was not prioritised in their daily work. They did not feel they had the professional skills to do it and the performance management systems did not recognise and support that kind of work. In the TAILOR project, we looked at how to address those 4 P's, including permission, prioritisation, professional skills and confidence, and performance management (Reeve er al., 2022). We used realist review methods and identified 2602 studies with 119 included in the final analysis, describing what we have summarised as the DExTruS framework (Data, Explanation, Trust, and Supportive infrastructure). We also identified the elements we need to put in place to help people tailor their prescribing (Reeve et al., 2022). We recognised that clinicians need multiple sources of data, the ability to interpret and explain that data, trust between teams as well as with patients, and a supportive infrastructure as the context in which they work. We are now working on what that looks like in practice.

Tackling Burnout: The CATALYST programme and Advanced Generalist Skills

Tackling that second B of burnout. We have been looking at how we change the workforce, and we are doing that through a project called the CATALYST programme. This tackles all that I have been talking about so far, tailored prescribing, whole-person healthcare needs, and the skills of advanced generalist medicine. Supporting healthcare professionals who are able and confident to work differently. To recognise that it is not simply a matter of what they know, but also how they use what they know – the distinct skill that is the knowledge work of advanced generalist clinical practice (Dell'Olio & Reeve, 2024).

Those are the skills that I have described and discussed in the interpretive medicine paper that I wrote for the UK Royal College of General Practitioners and in medical journal publications since then (Reeve, 2010). Now, primary care clinicians need to have the skills described in that work, which are not just about being good communicators, having good relationships, or being empathic, they also need to be highly skilled, complex decision-makers. They need to use the principles and practice of the 4 E's (explore, explain, evaluate, and epistemology) to enable the

core of the knowledge work of professional practice, underpinned by the science of epistemology. They need to be able to confidently use the 4Es to create new understanding in the context of their patient. We have been teaching those skills in this new project, the CATALYST programme, and conducting an evaluation of the programme to find out what effect it has had. Our evaluations showed that it addressed the burnout issues (Dell'Olio & Reeve, 2024). The GPs on our programme have described that they have a new understanding of what their job is and what its value is. They have new skills (mastery) and confidence (meaning) in the distinct knowledge work of generalist medicine and they are building a new community of practice that is supporting them in their work (membership). These - Meaning, Mastery and Membership - are the 3 M's of workforce motivation described by Moss Kanter in international research across multiple professions (Kanter, 2013). Our research is demonstrating that advancing generalist skills only tackling burnout but also motivating GPs to stay in the profession.

Re-Balancing the System: The Primary care Academic CollaboraTive (PACT) Project and Patient Engagement

The third B is about re-balancing the system, and this is hard because the system is so big and diverse. But there are a couple of examples of what we are doing. Firstly, we have a study looking at the impact of designing new systems of care for multi-morbidity -The PACT project. We did not design the Primary care Academic CollaboraTive (PACT) project. We were called in because the healthcare system that was implementing it realised it was not working in the way they expected. They asked us to come in and evaluate why.

Our research looked at what the doctors and nurses, what the patients were doing, and what the healthcare system was doing (Bryce et al., 2018). The big finding we found was that it was not the work of the patients or the clinicians that was the problem - it was the system. In short, the biggest problem was down to how the contracts for the new model had been designed. People were being required to deliver simplistic elements of care, and they were being paid for each of those individual bits. But this was stopping them from doing the complex whole-person work that the patients needed, the clinicians wanted to deliver, and indeed PACT had been intended to support. So, we need to think differently about the managed systems and contracts we set up for new models of work.

We also need to have new conversations with patients. They are a hugely important part of any health system design. We have been doing that as part of our Wise GP programme (Reilly et al., 2021). Our patients told us that the most important problem for them was access of care. They want quicker access, and they want more of it. We sat down with them and shared the evidence that described, from experience, whether those changes (quick access) were going to give them the answers that they were actually looking for. And through that conversation we helped them reframe their understanding of healthcare and also what they wanted from healthcare. By working together, in partnership, our patients were able to create new ideas that will help us learn more closely from the wisdom of the public.

Finally, we need new complex interventions for healthcare in the UK. We have been using complicated systems to manage healthcare problems, but not complex systems. The complicated systems of healthcare are ones that have lots of steps, managed through established rules and processes. A bit like the PACT study I was just talking about. Complex systems are different. They consist of multiple interconnecting and interacting elements, all of which impact each other and work together to produce a variety of different outcomes. There are the systems that allow us to tailor what we do - our intervention - to the context it is working in so that we make it relevant, and make it fit. In the UK, we have got guidance from the Medical Research Council on how to develop, implement, and evaluate complex interventions but it is very rarely used well.

The TIMES project

Our project – Welcome to Tailored Management of Sleep (TIMES), is an example of one project where we are looking to develop a new complex intervention (Hull York Medical School, n.d.). We are focusing on how we can improve the tailored management of sleep for people living with dementia. We are trying to look at how we need to change the system of healthcare, and also the system of how we do research in order to better support the development of that complex intervention. It is work in progress, but we are learning a lot on the way of how research and systems need to change. All of these efforts are helping us think about a new complex intervention for the whole of PHC.

A New Model for Primary Care

I want to finish by highlighting the impact generated from these reflections on our work. First of all, we need a new front door into primary care. We still need to hold on to good specialist care, but a lot of our patients need a different model of healthcare. So, we need a system that helps to work out who needs specialist care and who needs whole-person generalist care as they come into the healthcare setting. Secondly, we need to recognise, grow and strengthen a new complex intervention that is advance generalist whole-person healthcare. This needs elements that are delivered by the health professional but also flexibility in the organisational context that allows them to deliver that care. The third element is that we produce different outcomes from all of that. We cannot measure the impact of our new model with traditional disease metrics or standardised disease tools, because we are producing a different kind of outcome. We are not necessarily going to see a change in blood pressure or a change in cardiovascular risk score, but we will see a change in the burden on the people in our healthcare system, and in the motivation and well-being of the staff who are working within it. So we need new ways to capture that.

Conclusion

In conclusion, just as evidence-based medicine, grounded in specialist medicine, gained an international foothold and changed the way we deliver healthcare, we now need to think about how advanced generalist medicine can do the same for primary care. We can achieve this by setting new goals, creating a vision for the system, and establishing a clear objective. A shift from evidence-based medicine to include advanced generalist medicine. The new vision aims to better harness the wisdom of advanced generalist medicine through the four E’s. That strengthens its core skills - Interpretive Medicine, as I have described in the CATALYST programme and Wise GP programme. These programmes are supported by new resources, including a new prioritisation of learning in context to address four P’s and enhance the three M’s. All of this produces a new output such as the ability and capacity to generate knowledge in practice in context. This is the work we need to do to deliver whole-person care, which will reduce those three B's of burden, burnout, and imbalance. Together, we can stand up for person-centred primary healthcare.

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1.9 Achieving Sustainable Financing for Primary Healthcare: Balancing Public and Private Sectors

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Key Messages

- Hong Kong's primary care financing is imbalanced and inadequate, with only 27% of total healthcare spending allocated to primary care (compared to 42% in high-income countries) and government spending on primary care as a percentage of total government health spending is also low compared with global averages. This heavy reliance on out-of-pocket payments (70%), discourages consumption of preventive care and early detection services, indirectly increasing overall healthcare costs.
- The public-private healthcare model is imbalanced and unsustainable, with 90% of hospital beds in the public sector (funded by taxation) and 70% of outpatient visits in the private sector, leading to underfunded primary care and over-reliance on costly hospital-based care.
- The Chronic Disease Co-Care (CDCC) Scheme continues to face limited doctor participation due to low fees for doctors, administrative burdens, incompatible IT systems, and limited drug options —challenges that particularly impact solo practitioners. Enhancing incentives, simplifying procedures, and expanding coverage to other chronic conditions could improve the doctor's engagement.
- Reallocating resources from low-value inappropriate hospital care to high-value primary care is proposed as a sustainable financial solution, alongside establishing a single authority to manage primary family doctors, hospitals, long-term care, and District Health Centres, enabling resource shifting to enhance prevention, early detection and treatment, long term care and more equitable access.

Introduction

As a health economist focused on financial matters in healthcare settings, I examine two interrelated research questions regarding Hong Kong's primary healthcare (PHC) system:

1. Is the current level of PHC financing desirable and sustainable?

2. Given that level, is the existing public–private mix appropriate, and if not, how should it be adjusted—should the public sector do more, or should the private sector do more?

While most stakeholders would agree that Hong Kong should spend more on primary care, the critical question is: where should additional funds come from?

Overview of Hong Kong's Healthcare Financing System

Hong Kong operates a two-pillar system in which the public and private sectors remain largely separate—analogous to the Chinese saying, "well water does not mix with river water." The public sector dominates hospital care, with approximately 90% of hospital beds in Hong Kong funded primarily by taxation. The private sector dominates outpatient services, accounting for about 70% of all outpatient visits. Private hospitals constitute only about 10% of total bed capacity. In monetary terms, the two pillars are nearly equal, each spending roughly HK$ 100 billion, with the private side spending slightly less.

In terms of current health expenditure composition, we have the following:

- Taxation: 52%
- Insurance (group and individual): 16.7%
- Out-of-pocket (OOP): 30%

This OOP proportion is exceptionally high compared to other industrialised countries with universal health coverage. As for Government's spending allocation, of the 52% from taxation, 67.1% goes to public hospitals, while primary care (preventive and ambulatory care) receives only about 17%.

Table 1.9.1 International Comparison of Government Spending on Primary Healthcare

	Government Spending on Primary Care as a % of Total Government Health Spending	Out-of-pocket spending on Primary care as a % of total Primary Care spending
Low-income group[1]	33%	44%
Low-middle income group[1]	36%	49%
Upper-middle income group[1]	34%	39%
High-income group[1]	36%	28%
Hong Kong[2]	17%	70%

Note: [1]Percentages of government and out-of-pocket spending on primary care for low-income, lower-middle-income, upper-middle-income, and high-income groups are based on 2018 data from Hanson et al. (2022).

[2]Percentages of government and out-of-pocket spending on primary care for Hong Kong based on the 2019–2020 data from the Health Bureau (2022).

Source: Hanson et al. (2022); Health Bureau (2022).

International Comparison of Primary Healthcare Spending

Using data from The Lancet (Hanson et al., 2022) and Hong Kong's Health Bureau (2022), Table 1.9.1 compares PHC expenditure patterns of different groups of countries.

It shows that Hong Kong spends much less in terms of total healthcare dollars on primary care than most high-income countries. Government spending on PHC as a percentage of total government health spending is only 17% —which is about 40% of the high-income country's average. Out-of-pocket payments for primary care are the highest in the world.

Challenges of High Out-of-Pocket Spending

High OOP spending on primary care is problematic for several reasons:

When patients must pay for prevention or early detection themselves, they often choose not to consume these services. Even when services are free (e.g., dental check-ups every 6 months included in health plans), uptake is low. Preventive and early detection services are highly

price-elastic: a small price increase leads to a large drop in demand. For such services to be effective, they must be free—or even carry a negative price (e.g., incentives like gift vouchers for childhood vaccinations). These services are also income-elastic: low-income individuals without symptoms are unlikely to pay. Thus, public resources should form the foundation of PHC funding. In Hong Kong, the opposite is true: OOP spending has become the core, which is not desirable.

Evaluation of the Chronic Disease Co-Care (CDCC) Scheme

Programme Overview: The CDCC Scheme recruits private GPs to provide screening for diabetes and hypertension to asymptomatic individuals aged 45 and above. Positive cases receive subsidised treatment from the private GPs. Negative cases will be referred by the GPs to the District Health Centres for lifestyle advice.

Key Economic Considerations:

Demand-side: Is the scheme attractive enough to enrol large number of asymptomatic patients? One needs to consider non-monetary prices as well: convenience, waiting time, travel distance.

Supply-side: Are subsidies sufficient to attract large number private GPs? Are there high transaction costs?

Demand-Side Analysis:

The details of the Scheme for the patient side are as follows:

- First consultation + screening: patient pays HK$120 (approx. US$15).
- Laboratory tests: fully government-funded, free for patients.
- Follow-up for positive cases: patient pays HK$ 166 (approx. US$ 20), including drugs.
- Elderly patients can use government vouchers to pay fully or partially.
- Pay-for-performance bonus to GPs and patients, if the desirable outcome is achieved – e.g. blood pressure or blood sugar level returns to normal level. Patients will get a free doctor consultation worth HK$150.

Most of the arrangements appear to be reasonable. The only critical question is whether the HK$ 120 first-visit fee deters asymptomatic individuals from participating.

Willingness-to-Pay (WTP) Study

To assess the willingness-to-pay for the first consultation, using the contingent valuation method (a bidding game starting at HK$ 120, adjusting by HK$ 10 increments), we surveyed eligible individuals.

Results:

Half of participants had never heard of the CDCC Scheme, indicating a publicity gap.

80% of respondents said they were willing to pay HK$ 120 for the first consultation with the GP.

Supply-Side Analysis

Doctors' willingness to join depends, to a large extent, on the profit margins of the Scheme, which vary with:

- Fixed costs: Rent (vastly different depending on location).
- Variable costs: Staff salaries, drugs, supplies.
- Transaction costs: Enrolment paperwork, claiming from government, IT system compatibility.
- Opportunity costs: Losing regular patients who pay higher fees.

Under the CDCC Scheme, the doctor receives HK$ 316 per consultation (patient co-payment + government subsidy). For drugs, doctors receive HK$ 105 per patient via government suppliers.

Identified Problems from Doctor Feedback (n=151 family doctors)

To assess GPs' views on the scheme, a dedicated WhatsApp group was formed with 151 GPs,

and relevant questions were put to the group to solicit their responses. The following salient points were recorded:

1. Drugs: Many doctors reject government-specified low-cost drugs, fearing reputational harm.

2. Fees: Unattractive to high-demand, high-fee, prime-location GPs. Some doctors are charging in excess of $700 for consultation.

3. IT system: Too complicated, especially for solo practitioners or older GPs; requires additional technician costs.

Results after 18 Months of Implementation

Enrolment: 131,200 patients. Government target: 200,000 (expected to be met in 2 years).

Eligible population: 3.8 million. Target is only 5% of eligible population.

Screening outcomes: 74,900 screened; 31,100 positive for one or two conditions. This high positivity suggests many participants already had symptoms and joined to access subsidised treatment, defeating the original early detection goal.

Supply-side: 640 family doctors joined. Total registered doctors in Hong Kong: 16,000; private practice: 8,700; estimated GPs: ~4,000. Desirable number of trained family doctors: 3,750 (Chan, 2018). Current participants: <20% of desirable level.

Suggestions for Improving the CDCC Scheme and PHC Financing

Funding Model Reforms:

Shift from fee-for-service to capitation funding plus pay-for-performance.

Allow doctors to charge additional co-payments at their discretion, with patients choosing based on price.

Operational Improvements:

Increase promotional efforts for patient awareness.

Review and expand the drug list to include more options.

Provide dedicated IT support for solo practitioners.

Establish formal channels for doctor feedback.

Structural Challenges Beyond the CDCC Scheme

Even if these improvements are made, they require more funding.

PHC cannot be limited to hypertension and diabetes. Other common chronic conditions also need attention, for example:

- Blood lipids (now being introduced)
- Osteoporosis
- Lung cancer (low-dose CT)
- Sarcopenia etc.

To spend on par with high-income countries, Hong Kong needs an additional HKD 32 billion to fund primary care.

Where should the money come from?

Government is the ideal source, but post-COVID government budget deficits persist, and prior surpluses are being drawn down.

Tax revenue is declining structurally due to a falling labour force (since 2018).

New taxation is not realistic in the short term.

Proposed Solution: Shifting Resources from Low-Value to High-Value Care

A considerable volume of low-value care delivered in public hospitals involves treating patients that can be treated on an outpatient basis.

Public hospital bed cost: HKD 7,000 per day

Outpatient specialist visit: ~HKD 1,000.

A study (Our Hong Kong Foundation, 2021) found that 46.8% of hospitalised patients could be treated as outpatients.

Proposal:

Shift resources from hospital-based low-value care to primary, preventive, and early intervention services. This, however, is politically and operationally infeasible under current governance system with different silos.

Recommended Structural Reform:

A single Health Authority to be established with responsibilities over:

- Hospitals
- Primary care services (including family doctors, District Health Centres etc) and
- Long-term care facilities

Key features:

- One budget.
- One governing body with financial responsibilities.
- All staff (doctors, nurses, physiotherapists, etc.)will br employees of the Authority, and can be redeployable across settings (e.g., some physiotherapists and nurses to nursing homes, some doctors to DHCs).

This would allow the Authority to actively reallocate manpower and other resources from overused hospital services to underfunded primary, preventive, community-based care, and long-term care. This should save money in the long term.

Conclusion

Hong Kong's primary care financing is imbalanced and inadequate.

The CDCC scheme is a good start. On the demand side, the CDCC Scheme's fee structure appears acceptable, though greater promotion is needed. On the supply side, meaningful participation requires more funding, better drug options, IT support, and a reformed payment model. Beyond the scheme, Hong Kong's PHC system suffers from chronically low public spending, excessive out-of-pocket reliance, and a structural inability to shift resources from

low-value hospital care to high-value prevention. Marginal adjustments will not suffice. Reallocating resources from low-value inappropriate hospital care to high-value primary care is proposed as a sustainable financial solution, alongside establishing a single authority to manage primary family doctors, hospitals, long-term care, and District Health Centres, enabling resource shifting to enhance prevention, early detection and treatment, long term care and more equitable access.

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2.1 Multi-stakeholder design and assessment of primary healthcare policies: Insights from the Primary Health Care Performance Initiative (PHCPI) and the collective impact approach

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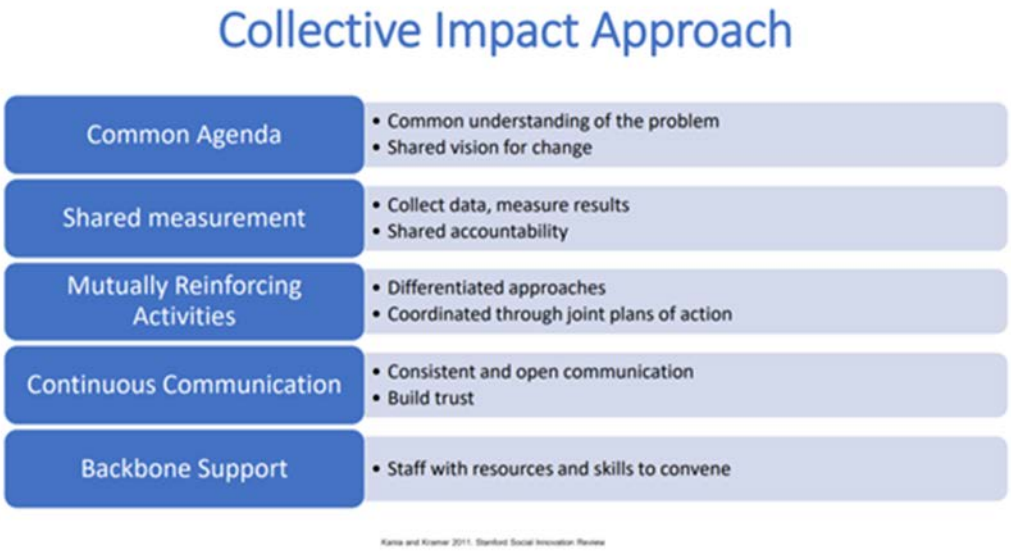
Key Messages

- Multi-stakeholder engagement and community involvement are essential for effective, equitable, and sustainable primary healthcare policy design, development, implementation, and evaluation.
- The collective impact approach is key to tackling complex health challenges, engaging stakeholders in primary healthcare policy, and achieving sustainable improvements in health systems and policies.
- Case studies from Chile, Peru, Colombia, and Hong Kong demonstrate that stakeholder collaboration results in improved service delivery, better health outcomes, and strengthened policy processes.

My talk is about the importance of engaging stakeholders in policy design, development, implementation, and assessment. The evidence shows that the better you engage stakeholders, the better policy can be made to meet the expectations of the population and address health needs. This is key to sustaining the good deeds and positive results of policies. I will give some insights into the collective impact approach, and then I will show examples, particularly from Latin America, such as Colombia.

This approach has been used in primary healthcare, and there are also examples from the primary healthcare performance initiative (PHCPI). For example, one of the assessment frameworks is the one used to overlay primary healthcare systems. Collective impact is an approach to convene the main stakeholders of a situation or a problem. It starts by

Figure 2.1.1. Collective Impact Approach



Source: Kania & Kramer (2011).

understanding the problem, collecting and reviewing data, and identifying the needs. The community assesses what the different stakeholders do towards solving the problem. It also involves identifying effective strategies to address the problem.

It is often the case that stakeholders do or usually perform actions towards the unknown, but they are not conscious of what they could accomplish if they joined efforts together. Sometimes, the problem is not even recognised, and you use the data to open political windows to gain political will. So once you engage the stakeholders, you should facilitate an enabling environment where everyone feels fine with a collaborative spirit and is engaged. The aim is to achieve alignment, coherence, and coordination of actions. Mobilisation of resources does not always require more resources. You just need to align the resources and contributions of all the stakeholders, and that is a way to obtain impactful results. This is what collective impact is about. These are the five components of the collective impact approach described by Kania and Kramer (2011) (Figure 2.1.1).

Firstly, having a common agenda—a common understanding of the problem among all

stakeholders, with a shared vision for change, even though everyone will have their own scope. Secondly, having a shared measurement—everyone commits to collect data, including already existing data, but then they can merge the data and see the whole picture. By aggregating data, they can assess whether the collective effort is achieving results, and organisations can share accountability for that data. They can actually create new, common data to measure the common effort. Thirdly, you have mutually reinforcing activities. Often, we see that stakeholders duplicate efforts because they do not coordinate with each other. They can still keep their own scope of work with differentiated approaches but can coordinate through joint action plans. The fourth element is continuous communication, which ensures smooth activity performance and builds trust. Finally, it is very important to have backbone support from an elite body that is coordinated, with dedicated staff, resources, and the special skills needed to convene stakeholders and bring all the pieces of the puzzle together.

Examples:

Chile: Integration of Services Across Sectors (CHCC Programme)

I will quickly go through some example cases where elements of multi-stakeholder engagement can be found in primary healthcare policies. The first case is from Chile, in Latin America. The early childhood development programme in Chile is a national, comprehensive, multi-sectoral social protection programme aimed at promoting optimal development of children from conception to school age. It seeks to address challenges such as high rates of developmental delays, especially in the poorest quintile, inequalities in access to quality health, education, and social services, and socioeconomic barriers impacting child development. The programme brought about the integration of services across sectors: health, education, and social protection, leveraging the existing programmes and services, under the backbone coordination of the Ministry of Social Development, a broader entity that was able to convene other sectors. Entities from the three sectors shared electronic databases. They created a specific platform to communicate and report data. They created measures that were commonly agreed upon, plus those measures that were already in place for each stakeholder. Furthermore, they directly transferred resources to the intersectoral teams formed across these sectors at the municipality level, based on the fulfilment of quality standards and key performance indicators (KPI). They received baseline funding, but on top of that, based on the fulfilment of KPI, they received incentives.

Key factors for success included broad consensus, political support, and strong government leadership. Actually, Michelle Bachelet, a paediatrician, the President of Chile at that time, directly led this effort and was able to bring in all stakeholders at high and medium levels, with extensive national and regional involvement, including civil society and academia. And local implementation occurred through municipal networks. The different sectors—health, education, social protection—contributed with personnel under the same roof, working as a cross-sectoral team with participation from the community to make it accountable and community-driven.

They strengthened primary healthcare, including hospitals, with services such as personalised birth care and care for mothers. Then they ensured that children were placed under developmental surveillance from the beginning of their lives, to quickly identify those with developmental delays. They developed a specific programme for these children to stimulate them and prevent deterioration of the condition.

You can see here some of the measures that were commonly agreed upon. Spending on this programme increased over the years (Table 2.1.1). Prenatal care, home visits, and involvement of fathers also increased. Breastfeeding rates increased. The number of home visits for those identified with developmental or psychomotor delays increased. The number of parents attending workshops for development also increased. They tracked the increase in school attendance for preschool and school-age children. Everything increased. Even though more children with developmental problems were identified, the rate was able to be reduced over ten years, thanks to prevention, prenatal care, early identification, and appropriate stimulation.

Peru: Local Health Administration Committees (CLAS)

The second case is from Peru. It is the Local Health Administration Committees (CLAS stands for Comités Locales de Administración de Salud) that run primary healthcare centres, mostly governed by the communities with technical facilitation from the central government. The

Table 2.1.1. Key ChCC country indicators, 2007-18

Indicators	**2006-2010**	**2011-2014**	**2015-2018**
Total public expenditure—ChCC ($m, 2017)	7.809 (2007)	72.715 (2012)	80.989 (2017)
Prenatal care			
Home visits: pregnant women with psychosocial risk (total number)	13 310 (2007)	88 103 (2012)	72 547 (2017)
Prenatal care with spouse, family member, or significant other (% of prenatal visits)	18 (2008)	30 (2014)	34 (2017)
Delivery and early postpartum care			
Birth companion (% deliveries)	—	59 (2012)	67 (2017)
Skin-to-skin contact for at least 30 minutes (% deliveries)	—	52 (2010)	76 (2017)
Exclusive breastfeeding for 6 months (% infants <6 months)	49 (2008)	43 (2012)	57 (2017)
Early child home care and education			
Home visits: children with psychomotor delay (total number)	2 754 (2007)	41 001 (2012)	46 033 (2017)
Parents attending motor and language development workshops (% of parents of children <1 year	0 (2006)	—	63 (2017)
Routine health visits for children 0-4 years attended by father (% of health visits)	14 (2010)	16 (2014)	19 (2017)
Preschool education 0-3 years (% of children attending	12 (2006)	26 (2011)	29 (2015)
Preschool education 4-5 years (% of children attending)	63 (2006)	83 (2011)	90 (2015)

*ChCC: Chile Crece Contigo (Chile Grows With You) is a programme enacted through law that follows the development of young children in detecting social risk conditions, developmental delays or other health issues, and implementing early interventions.

Source: Milman et al. (2018)

primary care centres were actually given to the community to run, with high standards of accountability and clear KPIs. They received direct funding from the government and engaged different stakeholders from the community to make it happen. The challenges addressed by CLAS were inefficiencies and underfunding of public health services, as well as social, cultural,

and economic barriers to accessing health services. These centres had a lot of autonomy in decision-making, with committees electing representatives to the boards to make sure the services provided truly met the population's health needs. As you can see, resources improved in equity, equality, comprehensiveness, effectiveness, and coverage. As a result, all of these primary healthcare centres especially benefited disadvantaged groups.

Today we are looking at both rural and urban areas. CLAS centres were compared to non-CLAS centres still run directly by the government. Financial barriers were reduced in CLAS facilities. Malnutrition rates decreased, as well as child attendance at growth and development programmes in CLAS facilities. When children were ill, health-seeking behaviours and attendance rates increased, reflecting the trust that was built. For example, attendance rates increased when children were sick due to diarrhoea in CLAS centres.

Colombia: Addressing Chagas Disease

The third case is from Colombia. Chagas disease is a neglected tropical disease in some areas of Colombia. It can lead to acute and chronic cardiac and digestive conditions that can be life-threatening. Uptake for early identification and treatment was low, leading to many complications. Local authorities, the DNDi (Drugs for Neglected Diseases initiative), and the International Agency for Neglected Tropical Diseases joined forces. They lobbied the National Institute of Health and engaged with the community, health providers, and health insurers to improve capacities at the local level (Figure 2.1.2). Before, tests were not able to be performed at primary care facilities (Table 2.1.2). The patients had to go to tertiary level hospitals. They increased capacities to make testing possible at primary healthcare centres with point-of-care testing. They trained the physicians and nurses to do it.

You can see here how dramatically the figures changed (Table 2.1.3). The number of tests performed improved significantly. These are the statistics showing how the numbers increased in testing. Not only did the number of tests improve, but the time between when a medical order was given for the test and when the patient was followed up was dramatically reduced. The time required to receive a diagnosis also decreased, and the number of people who tested positive was recorded as well. There was also an increase in the number of treatments

Figure 2.1.2. Core ingredients for increasing treatment access for patients with Chagas disease

Source: Marchiol et al. (2017)

Table 2.1.2. Number of people tested before and after the implementation of the patient-centred roadmap Project (period 2017-2020)

Municipality	**Baseline, before implementation***	**Post-RIA Implementation**	**Increased (+) or decreased (-) fold**
Mean number of people tested per year			
Támara, Casanare	10	245	+245
Nunchía, Casanare	25	338	+13.52
Soatá, Boyacá	250	796	+3.18
Mogotes, Santander	119	225	+1.89
Tame, Arauca	22	823	+37.4
Total	426	2,427	+5.69
Average days between medical order and final result			
Támara, Casanare	306	30	-10.2
Nunchía, Casanare	516	24	-21.5
Soatá, Boyacá	120	43	-2.79
Mogotes, Santander	90	20	-4.5
Tame, Arauca	No data	6	No data

Continues

Table 2.1.2. (Continued)

Municipality	Baseline, before implementation*	Post-RIA Implementation	Increased (+) or decreased (-) fold
Average days between medical order and final result			
All	258	19	-13.58
Mean number of people confirmed positive per year			
Támara, Casanare	2	42	+21
Nunchía, Casanare	10	63	+6.3
Soatá, Boyacá	5	63	+12.6
Mogotes, Santander	2	61	+30.5
Tame, Arauca	18	33	+1.83
All	37	262	+7.08

Source: Herazo et al. (2022)

Table 2.1.3. Access to antiparasitic treatment compared to baseline, project to increase access to diagnosis and treatment of Chagas disease, Colombia

Municipality	Baseline Data	Post-RIA	Implementation Fold Change
Mean number of patients initiating antiparasitic treatment per year.			
Támara, Casanare	4	15	+3.75
Nunchía, Casanare	4	30	+7.5
Soatá, Boyacá	6	11	+1.83
Mogotes, Santander	10	47	+4.7
Tame, Arauca	4	6	+1.5
All	28	109	+3.89
Mean days between confirmed diagnosis and initiation of treatment			
Támara, Casanare	472	192	-2.45
Nunchía, Casanare	443	115	-3.85
Soatá, Boyacá	350	131	-2.67
Mogotes, Santander	150	171	+1.14
Tame, Arauca	ND	64	
All	354	135	-2.62

Source: Herazo et al. (2022)

prescribed to patients after the intervention compared to before the interventions. Additionally, the time between confirmation of diagnosis and initiation of treatment was reduced, measured by the number of days. This progress was possible due to a whole-of-society approach—the essence of primary healthcare—with a high involvement of multiple sectors and stakeholders.

Hong Kong: Multi-Stakeholder Approach to Heat-Health Action Planning

Here in Hong Kong, we have done something similar at the School of Public Health. We brought stakeholders into the classroom with Master of Public Health (MPH) students, so they could experience the problems first-hand and see how academia can contribute, not only by teaching future professionals but also by helping address current issues in public health. This is related to heat-health action planning. Climate change and heat waves are increasingly affecting the population, but the health sector is not fully aware of the negative effects of heat waves. It requires participation from multiple stakeholders, involving meteorologists, public health professionals, urban planners, and the central government.

Do you remember the collective impact approach? Governments with heat-health action plans have a lead coordinating body, which coordinates meteorological bodies to fine-tune alert and warning systems. Health authorities can teach facilities and health professionals.

The urban sectors and environmental sectors can do their parts, for example, by surveying homes without proper conditions, such as those without air conditioners, as many places in Hong Kong still lack air conditioning. In this context, you can have a multi-stakeholder approach to address the problem. It is important to begin by assessing the policy landscape, mapping and prioritising stakeholders, understanding what they are doing toward this aim, engaging them, doing policy advocacy, convincing stakeholders, and co-creating policy. We did this with the MPH students.

There are some policies not directly targeting heat waves, but related to climate change, and some guidelines to prevent heat stroke in outdoor workers, but not a comprehensive heat-health action plan. We mapped stakeholders from NGOs, government, etc., and showed evidence of

how excess deaths can be explained by heat. This is real evidence. How deaths caused by heat are now similar to those caused by diabetes. Elderly patients with chronic conditions are most affected. We engaged stakeholders by showing the data. Many of them did not know about it, even those in the health sector. They did not recognise the direct effect of heat on uncontrolled diabetes. For example, elderly men are especially affected. We ran a summit, convened stakeholders, brought them together, many did not know each other, and they were able to share what they are doing and agree on what they can do together. We are on this track. This is an example of demonstrating how the collective impact approach can be used in the classroom, with students engaging external stakeholders.

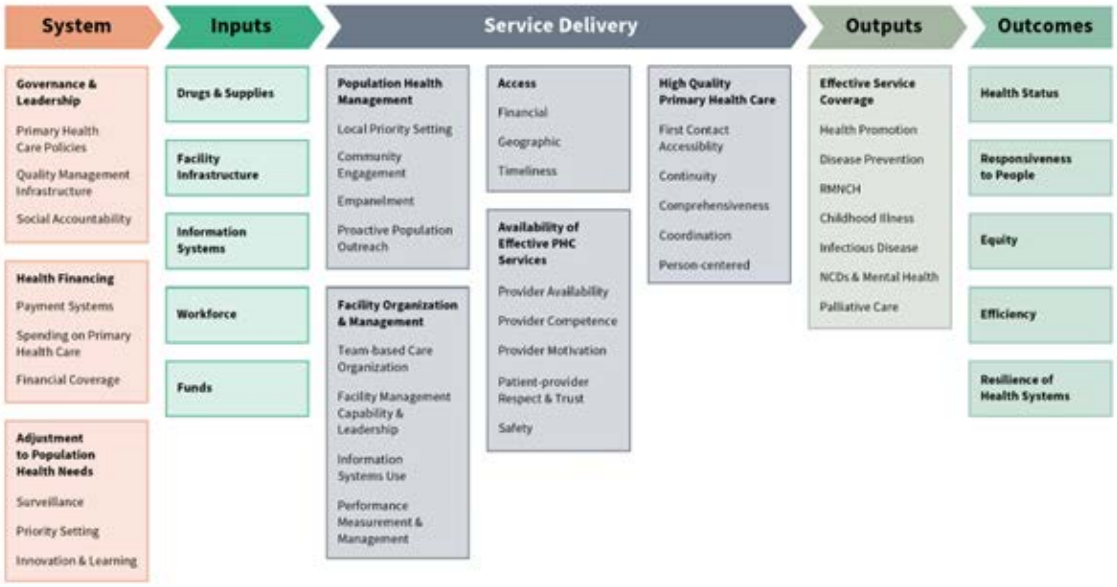
Global: Adopting the Primary Health Care Performance Initiative (PHCPI)

The final case is about using multi-stakeholder engagement for primary healthcare systems assessment. I will present some frameworks. I will focus on the primary healthcare performance assessment framework, which is a dedicated partnership to transform the global state of primary healthcare, to catalyse improvements and better measurement, and collaborate with the stakeholders to improve healthcare.

The PHCPI conceptual framework covers financing, capacity, performance, and equity. Different stakeholders' input is required to assess these domains. Some data comes from international sources (WHO, World Bank, Demographic and Health Surveys (DHS) from the United States Agency for International Development (USAID), and other publicly available data from the country's Ministry of Health and National Institute of Health.). Other data must be obtained locally, sometimes by requesting documents or even creating new data. Quantitative domains (access, quality, coverage, equity) use existing sources; qualitative areas require interviews with stakeholders, government, facilities, insurers, and civil society. This is called a progression model: an internal assessment team scores performance, then shares findings with stakeholders for validation and additional suggestions. An external team later checks the methodology and may suggest additional sources if there is disagreement.

Do you see the partners here? This initiative promoted better measurement to enable us to make better decisions, share best practices, and share knowledge. I was part of this initiative when I

Figure 2.1.3. The PHCPI Conceptual Framework



Source: World Bank Group (2022).

worked for the World Bank. I led efforts to assess primary healthcare performance in Colombia and El Salvador, a small country in Central America. I developed assessment tools in Ghana, Africa, and ran a community of practice to share good practices and knowledge in primary healthcare.

This is the PHCPI conceptual framework (Figure 2.1.3), as you can see with different domains involved and how opinions and insights from various stakeholders are required to really assess these domains.

There is a final scorecard produced from the assessment called the “Vital Signs of Primary Healthcare”, covering financing, capacity, performance, and equity domains. This is the kind of data used, and you can identify which types of stakeholders to approach.

To wrap up, I will quickly show how important engaging stakeholders in assessment depends on the data source needed. For example, to assess disease burden, you need survey-based epidemiological data on illness, age, and gender. For non-communicable diseases (NCDs), use

the local NCD risk factor surveillance (STEPS) or DHS. For financing topics, you have to look at out-of-pocket expenditures from household surveys or national health accounts. For health workers and patient-centred care, you have to use facility surveys and exit surveys to identify patient perceptions, how much they feel they received people-centred care. For access to health services when they are needed, household surveys are essential. You have to go to other sectors that perform this type of survey to engage those stakeholders in the assessment. To assess whether a facility is delivering services to meet the population's health needs—a comprehensiveness domain—you have to go to the facility, speak to the health administration, and see the records they have. To see the quality of care, you go to the facility as well to measure it. Some countries have their own systems to assess quality based on regular periodical assessments they do in the facilities.

Administrative data can be used to observe equity results, sometimes including claims data. There are some key takeaway messages: Multi-stakeholder engagement and community involvement are key for effective, sustainable, and equitable primary healthcare policy development, implementation, and evaluation. As I already showed, policy implementation that includes community empowerment and intersectoral coordination leads to better health outcomes, transparency and accountability, and inclusiveness. It also helps engage the community and stakeholders to increase their sense of belonging and ensure sustainability. The collective impact approach is a very effective method to meaningfully engage stakeholders in primary care policy.

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2.2 Service Status of Primary Healthcare Institutions in the Development of Effective and Equitable Primary Healthcare Policies

Prof. HU Bing-jie

Vice President, Guangzhou Medical University, Guangdong, China

Key Messages

- Innovative service models such as district-level medical networks, the Hua Du One-Yuan Medical Service, and the Zeng Cheng Dean-led Management Model have improved service accessibility, affordability, and operational stability, resulting in improved access to and utilisation of health services.
- Despite resource expansion and policy support, significant regional disparities and mismatches in resource allocation and service accessibility remain, especially between urban and rural areas in China.
- Resource allocation, technological empowerment, and policy innovation are essential for balancing efficiency and equity in Guangzhou and nationwide primary healthcare development reform, supporting China's progress toward universal health coverage.

It is my great honour to present the findings of our research on the operational efficiency and equity of primary healthcare institutions in Guangzhou. This study aims to analyse the current status of primary healthcare services, identify developmental bottlenecks, and propose targeted strategies. It includes five parts: background, objectives, subjects and methods, results, conclusions and recommendations.

The first part is the background. Primary healthcare forms the foundation of the healthcare system. According to WHO, the strength of primary healthcare directly determines the efficiency and equity of the entire health system, serving as a key link to achieve Universal Health Coverage. In China, the Healthy China 2030 plan emphasises the strategic goals of "strengthening primary care," aiming to enhance service capacity and optimise resource allocation at the primary level. So now I would like to introduce the situation in Guangzhou.

Since 2009, primary healthcare resources in Guangzhou have expanded significantly, but allocation efficiency lags behind the scale growth, with regional disparities restricting service accessibility. The Guangzhou Healthcare Facilities Layout Plan, issued last year, focuses on upgrading primary healthcare capabilities. Also, challenges such as an ageing population, the trend toward smaller families, and resistance to key reforms, such as tiered diagnosis and treatment and family doctor contract services, further underscore the urgency of this research.

Research Objectives and Methods

Then I would like to introduce the objectives. The first objective is to measure resource allocation equity, using the Lorenz curve and Gini coefficient to assess equity from dual dimensions: population distributions and geographical distributions. The second objective is to quantify operational efficiency. We used Data Envelopment Analysis (DEA) to evaluate efficiency with input indicators such as number of beds, personnel, and outpatient indicators including outpatient visits and family contracted services, to identify inefficient links. The third objective is to identify service bottlenecks and development paths.

The research implications include three points: provide a scientific basis for policymaking, promote optimisation and upgrading of primary healthcare, and promote coordinated development of regional medical and healthcare.

Now we move on to research subjects and methods. We analysed the current status and achievements of comprehensive reform in Guangzhou's primary healthcare institutions, including community health service centres and stations, and township health centres in rural areas. The research methods used for efficiency are DEA and for equity are the Lorenz curve and Gini coefficient.

Reform Achievements and Innovations

Now let us move on to the research results. The results of Guangzhou's healthcare reform are guided by national, provincial, and city-level governments. For the national level, the Healthy China 2030 Plan Outline emphasises "strengthening primary care" and tiered diagnosis. For

Figure 2.2.1. Overall situation of community health service centres (stations) and township health centres in Guangzhou from 2009 to 2019

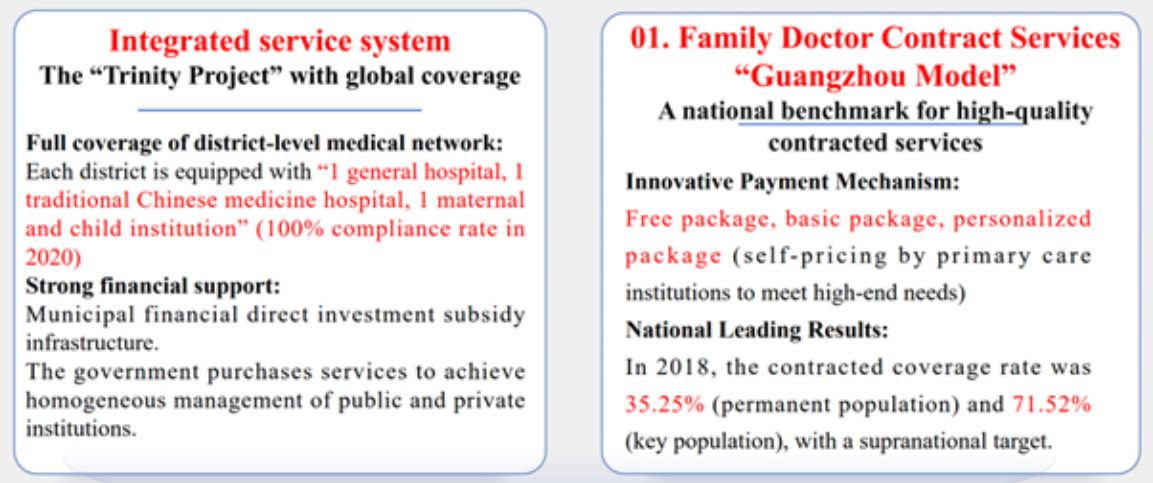
Resource type	Growth (2009 to 2019)	Key questions
Number of institutions	260→356 (37%)	Private community centers accounted for 38% (2019), with uneven public-private resource distribution.
Bed Capacity	3932→5090 (+29%)	The number of beds in township health centers fluctuated greatly (2,512 in 2011→1,892 in 2019)
Healthcare Professionals	9588→17036 (+78%)	The doctor-nurse ratio is only 1:0.9 (2019), lower than that of tertiary hospitals
Fiscal Investment Ratio	18.7%→43.2% (% of total revenue)	Fiscal dependency of community health centers (39%) was lower than that of township health centers (55%).

the Guangdong provincial level, we focus on medical alliance construction and family doctor services. At the Guangzhou city level, there are “Smart healthcare” information systems and fiscal compensation tilting toward primary care.

We can see Guangzhou's growth in healthcare resources: there are structural imbalances and stability problems; the number of institutions increased from 260 to 356, bed capacity grew from 3,932 to 5,090, the number of professionals increased from 9,588 to 17,036, and financial investment increased from 18.7% to 43.2% between 2011 and 2019 (Figure 2.2.1).

There are highlights of innovations in Guangzhou that lead the country, including full coverage of district-level medical networks (Figure 2.2.2). Each district in Guangzhou is equipped with one general hospital, one traditional Chinese medicine hospital, one maternal and children hospital, as well as community health centres and township clinics. Secondly, in family doctor contracted services, the Guangzhou model includes free packages, basic, and personalised. Patients can customise the content of the package and will get discounts. For the national leading results, in 2018, the contracted coverage rate was 35.25% for the permanent population and 71.52% for key populations, with a supranational target.

Figure 2.2.2. Service models in Guangzhou

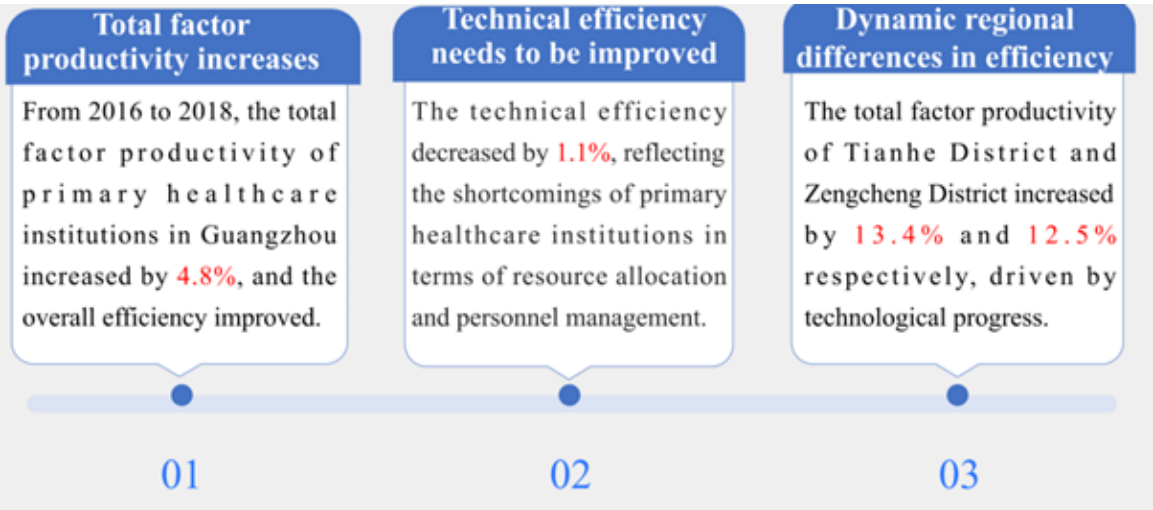


The next example is the Hua Du One-Yuan Medical Service model. In Hua Du district, villagers pay only 1 RMB for registration with free medicine, reducing the burden by 170 million RMB over the years. This model alleviated the problem of 'difficult and expensive medical treatment" in rural areas and improved the utilisation rate for chronic disease management.

The third model is the Zeng Cheng Dean-led management model. Hospital teams are given more autonomy in employment, operations, and performance-based salary distribution. The Dean of the hospital highly empowers them to have the right for personnel employment, operational authority, and also the right for performance salary distribution to the team. This led to increased primary care service volume and reduced volatility at the primary level.

Now we move on to the Operational Efficiency Analysis (Figure 2.2.3). From 2016 to 2018, the total factor productivity (TFP) of primary institutions in Guangzhou increased by 4.8%, which indicates the gaps in resource allocation and personnel management. Then we also found that there are some regional disparities. The TFP of Tianhe District and Zengcheng District increased by 13.4% and 12.5% respectively, and the central urban areas should have relatively higher efficiency than suburbs, with community health centres outperforming township health centres. The talent, equipment, and information were the key efficiency drivers.

Figure 2.2.3. Operational Efficiency Analysis: City-wide efficiency dynamics



Evidence analysis: Equity Assessment

In the evidence analysis, we used a Gini coefficient matrix analysis for equity assessment (Figure 2.2.4). The Gini coefficient of human resources is 0.142, which means relatively fair in the population distribution dimension, and 0.477 in the geographical distribution dimension, which is unfair. Urban areas have dense talent and rural areas face shortages of talent and equipment. For medical equipment and physical resources, the Gini coefficient of material resources is 0.323, which is a mild inequality in the population distribution dimension and 0.138 in the geographical distribution, which is relatively fair, showing advanced facilities in the core urban areas and backwardness in rural areas. For service accessibility, the Gini coefficient was 0.542, which is significant inequality for the population distribution dimension, and 0.573 in the geographical distribution dimension, which indicated prominent equity issues.

Challenges and Policy Recommendations

I will move on to the last part – conclusion. First of all, Guangzhou's primary healthcare reform has achieved good results with models like the "Hua Du One-Yuan Medical Service" and the "Zeng Cheng Dean-led Hospital Management Model," which can provide a replicable experience. However, challenges remain, such as a mismatch between scale expansion and efficiency improvement, prominent geographic equity contractions, and also the regional gaps, which restrict service certification.

Figure 2.2.4. Equity Assessment: Gini coefficient matrix analysis

Equity Assessment of HR	Equity Assessment of physical resources	Equity assessment of service accessibility
The Gini coefficient of human resources is 0.142 (relatively fair) in the population distribution dimension and 0.477 in the geographical distribution dimension, which is unfair. There are a large number of excellent medical talents in the core urban area, while the lack of talents in the rural areas affects the fairness of medical services.	The Gini coefficient of material resources is 0.323 (mild inequality) in the population distribution dimension and 0.138 (relatively fair) in the geographical distribution dimension. The medical equipment and facilities in the core urban area are more advanced and complete, while the rural areas are relatively backward, which affects the medical experience of residents.	The Gini coefficient of service accessibility was 0.542(significant inequality) in the population distribution dimension and 0.573 (significant inequality) in the geographical distribution dimension, indicating pronounced gaps in service accessibility across regions.

For the policy recommendation, the first key is precise allocation of resources to optimise equity, including establishing a two-dimensional model—that is, the “population and geographic” resource allocation model—to bridge equipment gaps in rural areas. Also, a set of geographical Gini coefficient warning lines to force tertiary hospital resources to sink to the primary level and narrow the regional gaps. So there is important support for remote areas to improve medical conditions.

Secondly, technology empowerment is important to boost operational efficiency. Promote the “Zeng Cheng model” decentralisation mechanism and establish a DEA dynamic monitoring platform, and also build a bigger data platform for tripartite linkage of medical services, medical insurance, and pharmaceuticals—integrating family doctors, insurance payment, and drug distribution—and also leveraging information to optimise the service process and enhance access abilities.

In summary, primary healthcare is a cornerstone of Healthy China. Guangzhou's practice shows that balancing efficiency and equity through policy innovation, technological empowerment, and resource optimisation is the key to breaking bottlenecks. We hope this research provides insights for Guangzhou and nationwide primary healthcare development reform, contributing to the realisation of universal health coverage in China.

2.3 Building a Sustainable Primary Healthcare Workforce: Policy Approaches and Best Practices

Prof. Elizabeth HALCOMB

Professor, Primary Healthcare Nursing, University of Wollongong, Australia

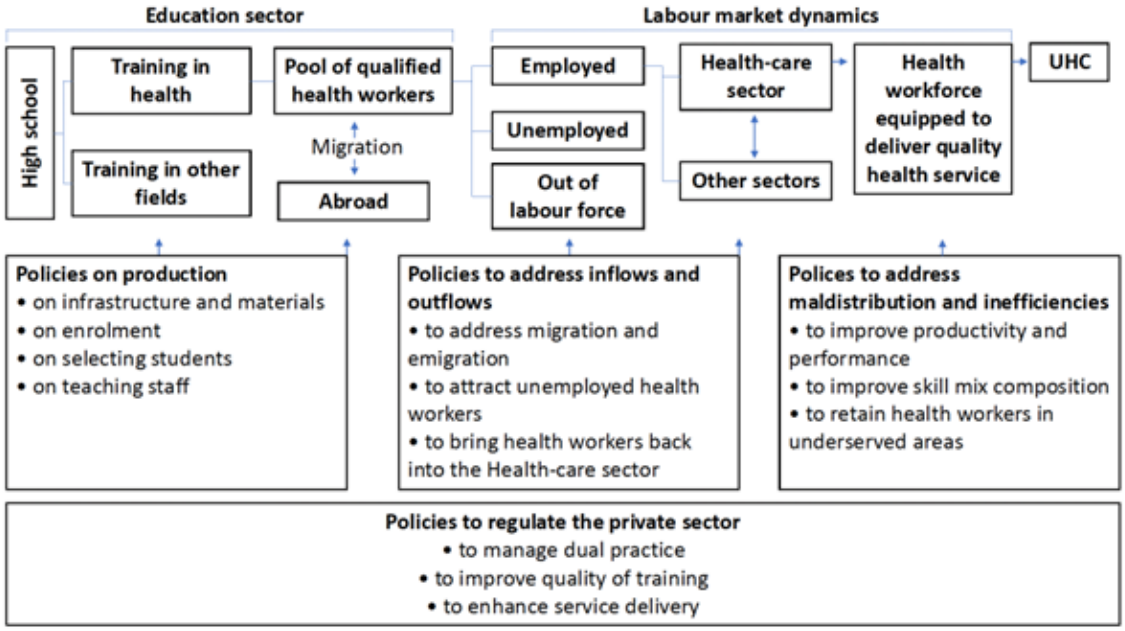
Key Messages

- Building and retaining a strong and sustainable primary healthcare workforce is essential but complex. This can be improved by implementing targeted recruitment, effective retention strategies, improved job satisfactions, and continuous professional development.
- Funding models and policy frameworks have a direct effect on skill mix, workforce size, and role flexibility, but they can also constrain practice scope and influence job satisfaction if not well aligned with evolving workforce capabilities and community needs.
- Primary care workforce effectiveness is maximised when professionals work to the top of their scope, supported by clear roles, interprofessional teamwork, strategic communication, and a collaborative environment.
- Retention of skilled professionals depends on job satisfaction, career progression opportunities, supportive leadership, and competitive pay; unclear career pathways, lack of support, and lower remuneration compared to hospital roles are major risk factors for turnover, especially in the context of post-pandemic changes.

This presentation is going to examine the key challenges in building and sustaining the primary care workforce to ensure strong primary care. The World Health Organization (WHO) has been advocating for multidisciplinary primary healthcare since the Declaration of Alma-Ata over 40 years ago, and this concept remains important today.

While significant gains have been made in developing the primary healthcare workforce, it is a constantly evolving challenge. As the health needs of our communities change, so too does

Figure 2.3.1. Health labour market framework and policy levers for attaining UHC



Source: Sousa et al. (2013)

the composition and competencies of the healthcare workforce required to meet these needs. Developing and sustaining the health workforce is complex. In particular, the primary healthcare workforce is impacted by a range of intersectoral factors. These range from education to employment markets, and even migration and immigration.

Health Labour Market Framework and Key Policy Areas for Universal Health Coverage (UHC)

The model that you can see in the figure here from Sousa et al. (2013), which was published in the WHO bulletin, highlights the various drivers impacting the health workforce (Figure 2.3.1). In today's presentation, I want to focus on three key policy areas around workforce maldistribution and inefficiencies.

I will unpack these policy considerations and the best practices in these areas using examples from my team's research over the past two decades. While much of this work focuses on Australian general practice, it really highlights areas for development across broader primary healthcare settings and the international context.

The three areas of policy consideration that I will focus on are key to ensuring that the right health professionals are recruited, supported to practise, and retained in the workforce to meet community needs. Firstly, I want to look at skill mix composition, and this includes the elements of developing a healthcare workforce that has a desire to work in primary healthcare and funding models that attract and retain the right health professionals.

Secondly, an important policy consideration is workforce productivity and performance. Ensuring that health professionals are supported to work to the full extent of their knowledge and skills is vital to promoting access to care. Additionally, ensuring that health professionals work in effective teams is vital to responsible resource use. Finally, keeping health professionals in the primary healthcare workforce is vital to sustainability and to growing expertise and skill mix. Ensuring job satisfaction and building career pathways are key strategies to promote workforce retention.

Preparation for the workforce: Education and Pipeline

A key consideration in building a primary healthcare workforce is building a pipeline to ensure the ongoing availability of health professionals to enter the workforce. Clinicians can enter primary healthcare either directly from pre-registration education or following a period of employment in hospital-based roles. Regardless of the individual career trajectories, building a pipeline of primary healthcare clinicians should begin at the pre-registration education stage.

Indeed, it is in this pre-registration stage that the seeds of a career in primary healthcare must be planted. In 2019, we undertook an integrative review to explore how international nursing curricula impact nursing students' attitudes, perceptions, and preparedness to work in primary healthcare. Despite the relatively small body of relevant literature, this review identified that the curricula remain too acute-care-focused, and that the content related to primary healthcare is highly variable between institutions (Calma et al., 2019).

The review also highlighted that limited clinical placement availability and too few academic staff with primary healthcare expertise were barriers to delivering primary healthcare content. Beyond what nursing students are taught, in her doctoral project, Dr Kaara Calma explored

students' knowledge and attitudes about primary healthcare and their intention to work in this setting (Calma, Halcomb, et al., 2021; Calma et al., 2022; Calma, Williams, et al., 2021). This work revealed that students generally had limited knowledge of primary healthcare and undervalued the role. Often, they perceived primary healthcare roles as a place where nurses could work at the end of their careers, as less onerous than hospital-based nursing, and as often limited in terms of career progression. Many students also identified that working conditions in primary healthcare were inferior to those in hospital employment.

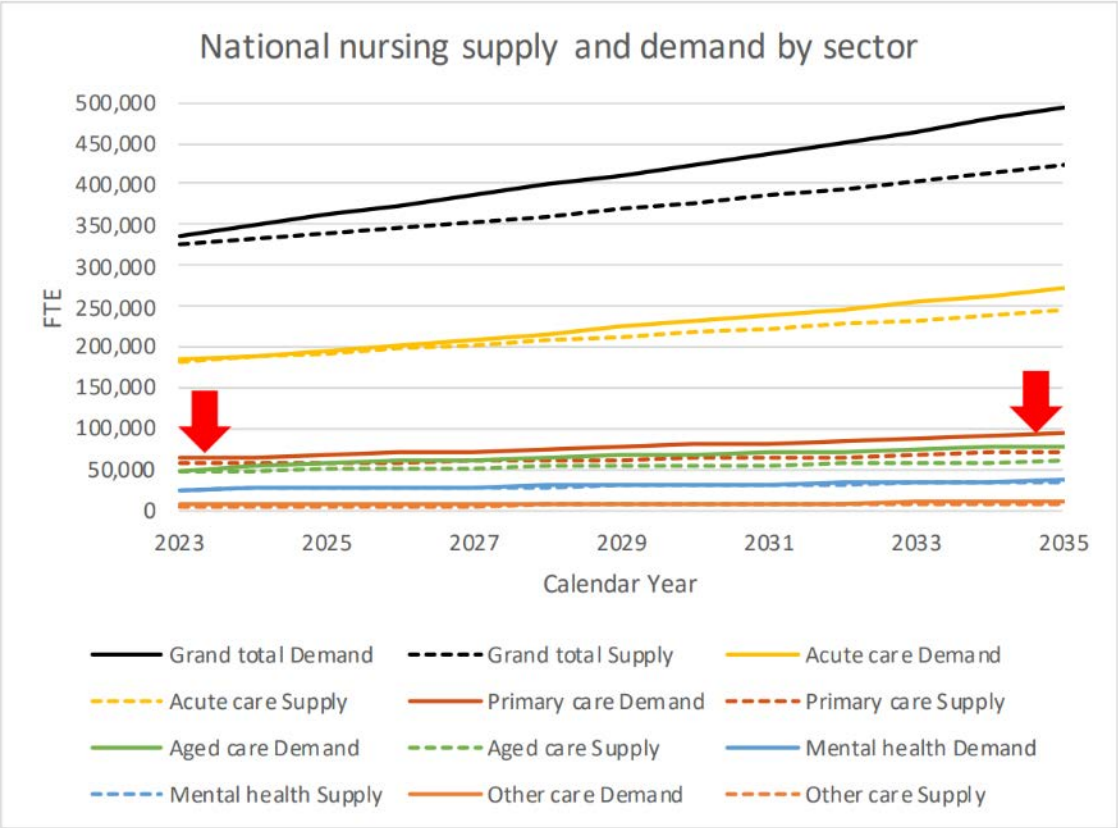
One thing that did shift students' attitudes and perceptions, however, was clinical exposure to primary healthcare. Once students were able to actually see nurses working in this setting, they began to appreciate the complexity of the role and its value to health. One student commented before they went on a clinical placement that their understanding of the primary healthcare role was that these nurses had a limited scope, did very repetitive work, and were limited to injections. However, once they went on the clinical placement, the attitude changed significantly. Another student commented, “It was really, really good and completely different to what I was expecting. It was really, really busy and I learnt so much.”

However, only about half of the respondents in our study actually had a primary healthcare placement during their undergraduate degree. While this research is related to nursing education and highlights the need to consider how we prepare health professionals in their pre-registration education to build the primary healthcare pipeline, healthcare professionals must be prepared to work across a diverse range of clinical settings beyond the hospital.

Funding models and Sustainability

Beyond fostering a desire to work in primary healthcare, funding models also significantly impact skill mix composition. The Australian general practice nursing situation provides a clear example of how funding and policy can shift workforce models. Following a series of policy reforms and increased funding to support nurse employment in this setting, the workforce in Australian general practice grew exponentially, and we currently have over 13,000 nurses employed in primary healthcare, with about one-third of the Australian workforce working in primary care.

Figure 2.3.2. National nursing supply and demand by sector



Source: Department of Health and Aged Care, Australian Government (2024, p. 8).

As you can see from this graph, in 2023, the demand and supply of primary healthcare nurses, as shown here by this red arrow, was about balanced because we had roughly the same number of nurses as we needed (Figure 2.3.2). Fast forward to 2035, however, and you'll notice the gap between supply and demand widens, highlighting an urgent need to implement interventions to manage workforce capacity and strengthen the primary healthcare pipeline. Now, while funding models have expanded the nursing workforce in Australian primary care, they have also functioned to constrain the role. Numerous studies have found that a key barrier to the nurse's role in Australian general practice is funding. Tasks that bring remuneration have become the focus of the nursing role, rather than the tasks that best meet patient care needs.

Currently, we are experiencing a lag between the growing policy focus on building stronger team-based care and the funding needed to support the workforce to achieve it. This demonstrates the need for ongoing dialogue between policymakers and those delivering care

to ensure a consistent approach.

The other aspect of funding models that requires consideration is clinician remuneration. In Australia, pay is consistently identified as the most important area of dissatisfaction among primary care nurses and, indeed, primary care doctors. There is a significant pay gap between hospital-based employment and primary healthcare. Additionally, as primary healthcare clinicians are generally employed by smaller organisations, they are often not afforded the same employment conditions offered by larger healthcare services. While pay is clearly an industrial issue, it directly relates to the funding of primary healthcare and must be addressed to support the sustainability of the workforce.

Optimising workforce effectiveness through strategic communication, collaborative teamwork, and supportive environment

The next policy area relates to workforce productivity and performance. Working to the top of ones' scope of practice refers to a health professional using the full extent of their knowledge and skills in the provision of healthcare. Workforce productivity and performance are optimised when all team members work to the full extent of their practice scope. While there is clearly overlap in the clinical tasks and activities various clinicians can undertake, it is essential to have clear planning for which health professionals are suited to which activities. This optimises resource use by delegating less skilled tasks to others, freeing the clinician to undertake the more specialised aspects of their role. Ensuring that health professionals are supported to work to the top of their scope optimises consumers' access to healthcare as more services become available. At the same time, clinicians become more satisfied because they are more valued and challenged in their practice.

Despite the potential benefits of task shifting to ensure that people work to the top of their practice scope, this is often poorly implemented in practice. A key component of clinicians working to the full extent of their practice scope relates to teamwork and collaboration. Teamwork and collaboration between multidisciplinary health professionals are key facilitators of productivity and performance. The value of multidisciplinary primary healthcare is not disputed in terms of its positive impact on patient outcomes. However, there has been limited

emphasis placed on how such teams can be established and nurtured. In primary care, for example, the historic model has been largely medically dominated.

Additionally, primary care practices are often run as small businesses or corporate chains rather than as integrated services like the tertiary sector. Over the last 20 years, various countries, including Australia, have adopted a more multidisciplinary approach by increasing the number of nurses employed in primary care. However, the integration of allied health professionals into primary care teams has yet to gain momentum, and most allied health services are located in separate practices. Simply co-locating health professionals in a practice location, however, is not sufficient to promote effective multidisciplinary teamwork.

While the literature describes the kind of work necessary to effectively build efficient multidisciplinary teams, little of this work has focused on primary care. However, the unique clinical context necessitates adapting these strategies to the specific environment. The funding models and business of primary care often prioritise patient care and provide little incentive to engage in team building. Yet, as widely described in Wagner’s Chronic Care model, building prepared and proactive teams is likely to yield the best outcomes. I was lucky enough last year to visit Canada and see how Team Primary Care is leading the way in transforming primary care training and education. They are working hard to equip Canada's workforce to deliver effective team-based primary care. This national programme of work has sought to shift both the health system and the health professionals within it towards greater teamwork. The resources developed by this group have potential international significance in supporting the transformation of primary healthcare teams. Although these resources can build capacity, policy and funding levers are essential to incentivise implementation.

Now, I would like to just spend a few moments talking about some of our research and the barriers and enablers to the nurse's role in primary care, because I think that these summarise the things that we have been talking about and reflect the important considerations of how external factors can influence a team's productivity and performance.

Firstly, let us look at the barriers — the factors that negatively impact nurses working to the

full extent of their practice scope. These barriers can be grouped into those created by the health system and those that arise within the local setting. At a systems level, funding, policy, and legal constraints have all been identified as impacting the role of the nurse. Funding constrains the role as only specific clinical activities attract remuneration for the practice. This means that nurses are encouraged to perform these tasks rather than others within their scope of practice that do not attract remuneration.

Policy and legal issues arise because, although the workforce composition in Australia is evolving, the regulatory and legal frameworks are not keeping pace, resulting in confusion about liability related to task sharing and delegation. At a more local level, limited communication and poor understanding of each other's practice scope restricts the nurse's role. A lack of attention to and investment in building the team has significant consequences for the workforce.

Now, when we examine the enablers, it becomes apparent that many of the barriers are actually also enablers of the nurse's role. When funding supports nurses in undertaking clinical activities, it enables their engagement in those tasks. When good collaboration with other healthcare professionals is achieved, nurses can develop their practice. When nurses are able to access education and training, they use this to build their skills and their knowledge. When they are satisfied with their job and receive positive feedback from consumers, they are encouraged to improve their practice. These enablers identify some of the key best-practice strategies that we can use to enhance the primary healthcare workforce and optimise role development.

Workforce Retention and Career Pathways

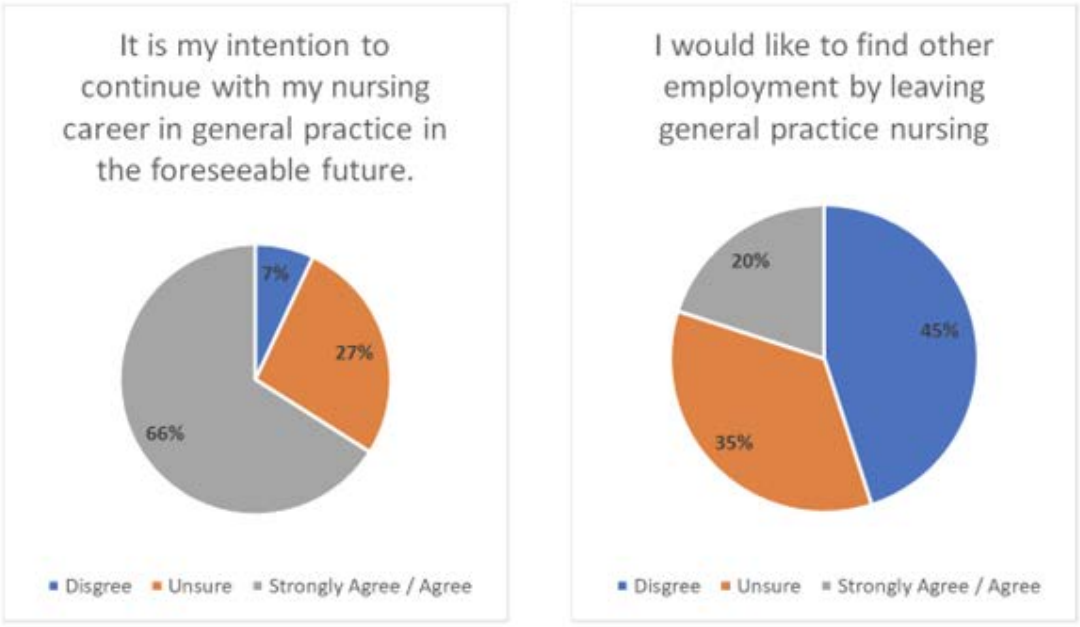
The final policy area that I want to discuss today relates to workforce retention. Keeping health professionals in primary healthcare employment is important not only for building skilled teams but also for reducing costs associated with staff turnover. Our research has confirmed that job satisfaction is significantly related to turnover intention amongst primary healthcare nurses (Halcomb & Bird, 2020; Halcomb et al., 2021). It is perhaps not surprising that when people are satisfied, they are more likely to want to stay in their jobs. Research about the retention of other primary healthcare clinicians shows similar trends. Our research identified

three key contributors to high satisfaction amongst primary care nurses: nurses were more satisfied when they had a dedicated nurse leader or manager, when they felt that they used their skills and their knowledge to the full, and when they did not feel isolated or unsupported. The differences we observe in job satisfaction rates across international reviews demonstrate that primary healthcare job satisfaction varies across countries, suggesting that there are likely to be health system factors that also influence satisfaction. There is also significant emerging literature on a decline in job satisfaction since the COVID-19 pandemic, highlighting the need to reconsider the satisfaction of primary healthcare professionals in light of societal and workplace shifts across the globe post-COVID (Halcomb et al., 2020).

I just want to show you these pie charts of primary healthcare nurses' career intentions to highlight a key issue (Figure 2.3.3). You will see in the left-hand chart that most primary healthcare nurses who responded to this study intended to continue working in general practice for the foreseeable future. Most nurses in the study disagreed that they want to find employment by leaving general practice in the near future. However, the key point to consider in these two pie charts is a significant group that were unsure. You will notice in the red slices of either pie that around one-third of the workforce were undecided about their career future. The challenge with this is that a range of factors may shift this undecided group either way. The potential for dire workforce consequences if this one-third of our sample decides to leave the profession should prompt consideration of factors to promote retention. This is especially important given emerging insights into post-COVID perspectives, when there is a heightened risk of attrition among health professionals and a reduction in overall job satisfaction.

Regardless of the discipline of health professionals and the trajectory of their career progression, the presence of a career pathway is a really important factor in promoting staff retention. In hospital-based practice, career pathways and promotion opportunities are typically quite well defined. Hospitals are usually large organisations within overarching health systems, offering clear opportunities for career progression. However, much of the work in primary healthcare is delivered in smaller health services and non-government organisations. The infrastructure is often leaner in these organisations, and there are often fewer higher-level positions providing strategic oversight and direction, which makes defining a career pathway for clinicians somewhat more challenging. People cannot simply move up in the organisation; they likely

Figure 2.3.3. Nurses' career intentions



Source: Halcomb et al. (2021)

need to be creative in moving, creating, or seeking out opportunities. This creates an important opportunity for policymakers and healthcare organisations to enhance workforce retention by more clearly defining and highlighting career pathways and critically thinking about how they can best use the workforce in primary healthcare to provide these opportunities.

Conclusion

From this presentation, you can see that building a sustainable primary healthcare workforce is impacted by a range of policy considerations and must be driven by best practice. Firstly, to promote skill mix and composition, a pipeline of healthcare professionals with a desire to work in primary healthcare needs to be developed. Additionally, funding models are needed to promote work in this setting and attract and retain health professionals. Secondly, workforce productivity and performance affect the quality of care delivered and health outcomes. Ensuring that health professionals are supported to work to the full extent of their practice scope is vital in promoting access to care. Additionally, ensuring that health professionals work together in effective multidisciplinary teams is vital to manage limited resources. Investing in building prepared and proactive healthcare teams will ensure optimal health outcomes. Finally, keeping health professionals in the primary healthcare workforce is vital to sustainability and

to growing expertise and skill mix. Ensuring job satisfaction and building career pathways are key best-practice strategies to promote the workforce.

I would like to leave you with some final thoughts about building a sustainable primary healthcare workforce. To borrow a quote from Einstein, “Insanity is doing the same thing over and over again and expecting different results.” COVID-19 has provided a disruptive innovation in the way that primary healthcare and health services function. In the last few years, we have seen rapid shifts in service delivery, technology adoption, and workforce composition and structure. What was once seen as impossible to achieve has now been enacted. As Stephen Duckett described, “innovation has been unleashed”. This creates an important opportunity to revisit the organisation of our community-based care systems and consider the primary healthcare workforce through a new lens. We have a unique opportunity to achieve health system reform as our world settles into new norms and governments examine how health systems function. Key to moving forward, however, is for primary healthcare professionals from all disciplines to be at the table, talking with policymakers and politicians to ensure that policy reflects best practice and supports a workforce that facilitates the delivery of effective and efficient primary healthcare. It is only through such collaboration that we can ensure that the composition and competencies of the primary healthcare workforce meet the needs of our communities.

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2.4 Panel Discussion: Navigating Challenges and Addressing Concerns: Stakeholders' Perspectives on Primary Healthcare in Hong Kong

Panel Members

- Dr Kam-leung CHAN (Development Manager, School of Chinese Medicine, CUHK)
- Dr Karly CHAN (Senior Lecturer, PolyU CPCE)
- Dr Oscar CHIU (Senior Lecturer, PolyU CPCE)
- Mr Alex LAM (Chairman, Hong Kong Patients' Voices)
- Mr Max MAK (Pharmacist, Kwong Wah Hospital)
- Dr Fowie NG (Associate Professor, School of Management, Tung Wah College)
- Ms Yuk-mun NG (Director (Services), The Hong Kong Society for Rehabilitation)
- Prof. Lorna SUEN (Dean and Professor, School of Nursing, Tung Wah College)
- Mr Jimmy WONG (Former President, Hong Kong College of Public Health and Community Nursing)
- Prof. William WONG (Clinical Professor and Department Chairperson, Department of Family Medicine & Primary Care, HKU)

Facilitator

- Prof. Ben FONG (Professor of Practice, Faculty of Health and Social Sciences, The Hong Kong Polytechnic University)

Key Messages

1. Strengths and Uniqueness of Hong Kong's Healthcare System

- Hong Kong offers open access and a strong safety net, with a dual-track public-private system that supports patient choice.
- The system benefits from world-class medical education and infrastructure but faces sustainability challenges due to rapid ageing population and rising costs.

2. Evolving Role of Primary Healthcare

- Primary healthcare (PHC) is essential for preventive care, early detection, and reducing hospital burden.

- Public understanding of PHC remains relatively low, often misperceived as only for underprivileged groups.
- Education and mindset shifts are needed to promote PHC as a universal and proactive health strategy.

3. Integration of Chinese Medicine and Complementary and Alternative Medicine

- Chinese medicine and complementary therapies align well with PHC's holistic and preventive goals.
- Scientific research and clinical trials are crucial to validate efficacy and promote integration.
- A collaborative, integrative treatment model combining Western and Chinese medicine is advocated.

4**. Role of Pharmacists and Medication Management**

- Community pharmacists are underutilised, especially in managing polypharmacy and post-discharge care.
- Better use of e-health systems, improved incentives, and increased resources could enhance their role in PHC.

5. District Health Centres Challenges

- DHCs face issues with venue sourcing, inconsistent protocols, high staff turnover, and short-term contracts.
- NGOs operating DHCs call for standardisation (protocol, guideline, policy, etc.), long-term planning, and recognition as strategic partners.
- Transdisciplinary and patient empowerment approaches are seen as effective models for chronic disease management.

6. Recommendations

- Government support must go beyond funding to include training, infrastructure, and policy alignment.
- Community engagement and promotion are vital to increase enrolment and awareness.
- A coordinated effort among stakeholders—including NGOs, district councils, healthcare professionals, and patients—is key to building a sustainable and impactful PHC system

Prof. Ben FONG

I would like to briefly say a few words about the Hong Kong healthcare system. This is the best policy (“no one would be denied of adequate care for lack of means") in the world. I have never seen any other country, region, or city which has such a very open access with a wide safety net policy. We adopted this from the British Hong Kong government, and this is a big advantage to our population that no one is denied adequate medical treatment due to lack of means.

We like this policy, but to a certain extent. As Prof. Peter Yuen is delving into it because of the exponential financial expenses, the healthcare system is growing so much. Now we do have some challenges and issues in our system, with a very long-life expectancy topping the world. Our Under Secretary, Dr Libby Lee, said yesterday that we are the victims of our success in keeping people living so long, and they consume anything as long as they live. And then we have some heavy subsidies in public healthcare services, particularly in the public hospitals. We do have an ageing population. But according to a few speakers yesterday, it should not be a major health or financial problem for Hong Kong because it is something natural. But we do have a problem with decreasing birth rate, and that is why the government is pushing so hard to attract people to come, work, and live in Hong Kong.

We also have this compartmentalisation, but the dual-track system is to our advantage. This is fairly unique in the world. I often say to people that we do have free choice. We do have a free market in the private sector, and we can see even 10 doctors a day, as Prof. Dongwoon Han said yesterday. In Korea, I guess most people might see 3 doctors a day. This is a free market. You cannot do that in Australia or the UK. The dual-track system has made Hong Kong such an effective and efficient system by many standards, although it is not a perfect one. We also have the advantage of having the opportunity or the freedom to go and get our services in the Greater Bay Area (GBA). Although this happens in some other countries, it is not as free as in Hong Kong. Conversely, GBA residents can come and have their services in Hong Kong as well.

Prof. William WONG

I just want to add a few things to Prof. Ben Fong's introduction. I think what he said about the

Hong Kong system is actually pretty unique. We are commissioned by The Lancet to look at the future of primary healthcare. We are gathering a group of people from around the world, including WHO and other experts, and also some from our Lancet Commission, to examine how primary healthcare is being affected, especially after COVID-19. A lot of new things are coming out such as technology, telehealth, and AI. All that has probably been around for some time. Because of COVID-19, which forced people to stay at home, our practices were forced to change. In the future, with AI, that will be even more so. For example, in China they are developing how AI can assist clinical consultations, and the Capital Medical University has received a 1.1 billion RMB grant to develop that. So, in the future, how is our practice going to be? We have to move with the times as well.

Also, in Hong Kong we have this public and private enterprise. I was trained in the UK, and we were taught that the NHS was the best system in the world. But having worked in Australia and in Hong Kong, I realise private-public mixed PHC financing system might not be a bad thing, because for those who can afford it, maybe with subsidy, with a small amount of money, that can resolve the problem, while more severe cases can go to hospital. But how are we going to do it? Shifting the culture from heavily subsidised to a co-payment model supported by the government in the future is the challenge.

Dr Fowie NG

Maybe I should also echo Prof. Wong. If we look at what Dr Margaret Chan wrote in The Lancet, with a title “A renaissance in primary healthcare”, the reason she chose the word “renaissance” is that, if you look at the whole world, primary care since the Alma-Ata Declaration has failed. That means we have to start again. After that, a lot of countries' ministers and those in charge will boost primary care, including Chinese Mainland. Right now, up to the current moment, I see that we need to be concerned about each country's characteristics. I have just searched the Internet for the latest developments in the UK. They have just published a very recent 10-year NHS plan with the application of what they call the Neighbourhood Health Centres (NHCs), which is open six days a week and twelve hours per day, with general practitioners (GPs), nurses, and other allied health professionals. This reminds me of our District Health Centres (DHCs), which are open six days a week for quite long hours as well. Previously, there were no doctors there, but in the new model, I think there will be some

medical input as well. I would say that each country or each locality should have a modified model. Especially in Hong Kong, the role of Chinese medicine, particularly with the upcoming establishment of the Chinese medicine hospital, should be introduced. I think Dr Chan will share more about that.

Dr Kam-leung CHAN

For Chinese medicine, we face some challenges. A major issue is a lack of regulations and clear treatment guidelines for Chinese medicine. Without these, people may have concerns about efficacy and safety. Established standards are essential for the integration of Chinese medicine into the healthcare system in Hong Kong. From my point of view, clinical research is also crucial. We need to do more studies to support the effectiveness of Chinese medicine. Positive results from trials can help bridge the gaps between Chinese and Western practice. We should continue to develop ways to measure how well Chinese medicine treats diseases. From my previous work, we did regular acupuncture combined with moxibustion for smoking cessation and studied its effects on tobacco dependence and smoking behaviour among Hong Kong smokers. This was one of our multicentre pilot clinical studies. After our research, we obtained positive results, and then the Department of Health established clinical guidelines on acupuncture and moxibustion for smoking cessation and smoker addiction. This is a very good example of Chinese medicine, where efficacy and safety can be demonstrated by some clinical studies. Therefore, I think more clinical research can help establish the effectiveness of Chinese medicine, help to connect Chinese medicine and Western practice in Hong Kong, and help Chinese medicine become more involved in the Hong Kong healthcare system.

Prof. Lorna SUEN

Just to echo what Dr Chan mentioned about Chinese medicine. Actually, I position myself as a researcher in complementary and alternative medicine (CAM) and as a nurse educator. I think one of my research areas is focused mainly on CAM. I think CAM actually aligns very closely with primary healthcare because primary healthcare always talks about prevention, holistic care and patient-centredness. Actually, all of these are the focus of CAM.

CAM is very broad. All those therapies or products that are not under mainstream or conventional medicine are classified as CAM. But of course, there is some scepticism towards

the effectiveness of CAM, probably because, as Dr Chan mentioned, there is a lack of scientific evidence. So I think in the future, since we believe that CAM is closely aligned with primary healthcare, I think this is one of the directions we need to pursue and to conduct more robust scientific research in order to identify the causal relationship of the treatment's effectiveness. An example in smoking cessation is very good. Actually, it is one of the very successful primary healthcare approaches. I think there are opportunities now, because previously it was very hard to get funding in Chinese medicine or CAM, I am sorry to say. But now there are actually more opportunities, because of more open-mindedness after the handover of Hong Kong to China.

Also, with the opening of the Chinese Medicine Hospital by phases starting at the end of the year, and the Greater Bay Area (GBA), and with the Chinese Medicine Development Fund (CMDF), all these factors actually give us more opportunities to obtain funding to conduct this kind of research. And I think integrative treatment approach is more important, instead of being solely based on Chinese medicine or CAM. I think the approach should be integrative, because Western medicine or mainstream medicine and Chinese medicine both have their own benefits and strengths. So, I think the trend is moving towards an integrative treatment approach.

Prof. Ben FONG

In fact, many people in the community are doing integrated treatment themselves. They go to see Western medical doctors and also Chinese medicine practitioners. I always remind our medical students to ask this question during routine history taking: Whether the patient is taking herbal medicine or seeing a Chinese medicine practitioner. Patients might not tell you, possibly for fear that the Western doctor might not like it. I always tell them that we, as medical doctors, should ask where the patients are going and even about self-medication. They practise self-medication as well, so this is important. Of course, it is ideal if the system and practice can integrate both forms. About 15 years ago, I started a clinic. I brought in a Chinese medicine practitioner to work with me in the same clinic. The most effective management was for people with sprained ankles or sprained joints, which can be so painful initially. I would give them an injection, and then they would move to the next room to see the Chinese medicine practitioner for whatever Tit Da (Bone setting) treatment as appropriate, and it worked. I think it would be a good model, and in fact, there are a few similar clinics around. I remember there was one in City One near the city bus terminus, with two lady doctors. They have been there for quite a

long time, and I know a medical group has also started similar practices. We should be aiming for integrated care, not just between Western medicine and Chinese medicine. As we have discussed yesterday and today, everyone is involved in primary healthcare, not just healthcare professionals, but also engineers, because prevention relate to air quality, noise, lighting, and so on. Everybody is involved.

Mr Max MAK

I think that in primary healthcare, we pharmacists should also play a major role. But I think in Hong Kong there is a big problem in that we are underutilising community pharmacies. I am a frontline pharmacist working in a hospital, and I see almost daily that patients have problems managing their drugs. In Hong Kong, many of our patients are very old and have issues with polypharmacy. Having 10 medications is not uncommon. When patients go to hospital, during their admission to the ward, the doctors do a very good job. They optimise medications so that the patient can be discharged from hospital to home. But when patients are discharged, sometimes not all drugs are dispensed. For example, the doctors add some new drugs, but do not dispense the old stock. They will ask patients to use their own existing supply. Sometimes the dose is changed, but the new prescription is not provided, so patients are told to use their own stock. This causes problems when patients return home. They may have three new medications, but ten old ones are already at home, and some of the old medications will have changed doses. When they return home, neither the patients nor their family members can manage it, and eventually a drug-related problem can occur. As a result, they may be re-admitted to hospital, and in the ward, I see them again.

This happens because there is no good support for medication management at home. I think in other countries, for example in the USA or the UK, there is better community pharmacy support. Pharmacists there can do drug reviews, drug counselling, drug reconciliation, and maybe the drugs are even reimbursed by the hospital or public sector, so there is an incentive to provide these services. In Hong Kong, this is no or very few incentives. I know the Jockey Club is now supporting some community pharmacy to promote pharmacist counselling, but I think the resources are still not enough. We have a population of seven million, and the majority of our patients rely on Hospital Authority services, but the Hospital Authority does not have the resources to do so much patient education. Nowadays, we mainly do drug dispensing and are already struggling to manage that workload.

Hospital and community pharmacies are very busy. When you go there, you see a lot of people waiting, and the waiting time can be one to two hours. We just do not have enough manpower to do this in the public sector. If we want to improve primary healthcare, I think resources for pharmacy are also important. More resources to promote patient use of pharmacy services at the community level are also important. This way, when patients are discharged from hospital or have any drug-related problem, they can go to a community pharmacy, and the pharmacist can provide a lot of counselling. In the past, we did not have e-health, so community pharmacies or even community doctors could not access patients' drug profiles. Now, the government has established a very good e-health system. If our community pharmacists can use that system, basically they can know all the drugs patients are using in the hospital setting. Then, they have the time and the opportunity to discuss with patients the drugs they are taking from private doctors as well as from Chinese medicine practitioners. This would allow us to provide better counselling.

I am also seeing patients in the warfarin clinic. Warfarin is a very old drug, but it is very useful. Some patients must use warfarin, even though it is old. For warfarin patients, we always educate them to stop using any Chinese medicine. But why am I saying this? It is not because I do not trust Chinese medicine. I take Chinese medicine myself. For example, in Chinese medicine, people with “熱氣” (Interior heat) always drink Liang Cha (Herbal Tea). I do it myself. But I recommend my patients not to do it because I lack knowledge of Chinese medicine. If I have a very good consultant in Chinese medicine, I could discuss this with the Chinese medicine practitioner and then maybe my patients could take Chinese medicine together with warfarin. Sometimes when they take “Ng Fa Cha” (five-flower herbal tea), which is very common in Cantonese culture, I still ask them to stop because I do not know if it is safe to take it with warfarin. In my experience, a lot of patients use Chinese medicine and end up having problems. They have difficulties controlling their warfarin levels. When I ask them to stop all traditional Chinese Medicine (TCM), then their international normalised ratio (INR) will return to normal. So maybe some kinds of TCM really do affect warfarin, but I don't think all TCMs have this effect. This is also important because patients in the community do not always come to the pharmacy, they do not always come back to the hospital, and they do not always see the Chinese medicine practitioner. They often try these things on their own, but we currently do not have enough resources to help these patients.

Mr Jimmy WONG

And I would like to raise another two issues, which I think are very practical in conducting primary healthcare service. I think we all agree and support that the development of primary healthcare service is the right direction for the Hong Kong healthcare system, and surely it will reduce hospital congestion and ease the financial situation, if you want to see success. I said "if" because this is my concern, since the development of primary healthcare service started about ten years ago and helped people start there. The concept was in place and in action around 2019, when the first District Health Centre (DHC) was set up. Up to now, it has already been six years, and we ask how many people in Hong Kong understand the primary healthcare concept, and understand the function of DHC. Your answer and your friends' could be really low. I don't know whether six years is long enough to get them promoted. I take an example from my own experience: I did a small survey about ten months ago, on a very small scale, not scientific but very practical, with a sample size around 100 of my friends. I noticed 50% of people had heard something about the primary healthcare concept, but they did not know what it was. PHC was never heard of by about 40% of the survey. They heard the name of PHC and the primary healthcare concept but didn't know their relationship or what they are doing. Only 10%, around 10% of the sample, had registered in the DHC and joined one or two programmes.

If this continues to stay in this mode, I do not think PHC can be spent efficiently. We have discussed and promoted PHC at many conferences and forums, but our clients, our target clients, the Hong Kong citizens, do not really know what PHC means. If this continues, with the current role of the healthcare system, they will go to A&E when they get something wrong. Still the same, no change. So, we need to address this issue. Whether our clients, Hong Kong citizens, really accept primary healthcare and know its purpose. My personal opinion is that our promotion is not enough and not focused enough on the patient or the citizen.

PHC is very special. It is a new system and a new healthcare system, which is a complete change in concept. Now, we Hong Kong citizens enjoy a very cheap and low-cost healthcare system. So, they do not care about the new change because they do not have to pay for it, so they are not very interested until something happens to raise fees or make access more difficult. Otherwise, they will not shift their attention to primary healthcare service. So this is my first concern.

My second concern is also very practical. I am appointed as a member of the governing committee and the advisory committee of the DHC since 2019. That means from the start. I noticed the majority of our staff are not trained in PHC because PHC is new to the Hong Kong healthcare system, and in the past, the Hong Kong healthcare system focused on curative care. In the hospital authority, they set up the system to promote specialisation. All they know is specialisation and they wanted to train specialised doctors and specialised nurses. They focused on a specialised system, which is a curative system in the hospital. But in the primary healthcare centre we are talking about, we are concerned with generalisation. We need the staff working there to have a wide base of medical knowledge, not just in depth.

But while possessing broader medical knowledge, they need to promote prevention more, not only curative care. It is very important. It is a long-term investment for the healthcare system, because we have to do a lot of preventive healthcare and health education. But are our staff ready to do this? Are staff currently working in primary care services ready to take this on? It depends on health academics to train more professional staff. But for me, at this time, at least, it is a long way to go, because without knowledge of PHC, the staff will not think proactively, and they do not have such a concept. I always tell my previous classes of nursing students that we have to change our mindset.

If we really want to do PHC service, we have to think outside the box, not in the traditional way, and then have a proactive manner. Because I always stress that healthcare professionals in Hong Kong are trained in universities and then go to the hospital, so they experience it in the hospital. They never worry about the clients. Lots of clients come in without any concern about no job, no money. But at the PHC level, we are targeting the healthcare system and people doing things preventively, such as health education starting from zero age.

It is different because these are healthy people without any abnormal conditions. If nothing is wrong, they will not usually contact healthcare professionals. So, if you are doing prevention, you need a proactive approach and a business mindset. You have to take the initial step to contact and educate the client, instead of sitting in the office, clinic, or centre and waiting. So this is my concern.

Prof. Ben FONG

All right, there will be lots of discussion about the system and so on.

Mr Alex LAM

I totally agree with what Mr Wong has said about DHC. There are several aspects that we have to consider because in Hong Kong, it's a very special place in the world. I would say we have world-class medical services, because two of our medical schools are among the top 20, if not top 30, in the world. Every year, around 450 well-trained medical students joining our medical system and providing healthcare services to the general public. However, at the same time, we see the same number of people leaving the public sector. So the problem here is that we are unable to maintain a quality service in the public sector. In Hong Kong, there are around 15,000 doctors registered, and only around 6,000 people work in the public sector, including management. With this "leaking tank," we see people leaving for the private sector, not only the number of people but also the experience they gain from practicing in public hospitals. There is a problem with succession and also with the training of the younger generation in this profession.

Also, there's another problem in Hong Kong when we talk about primary healthcare, because it started with a bad name. In Chinese, "基層," in general thinking, means grassroots or underprivileged families. In fact, Hong Kong is a middle-class society. The majority of the population is middle class. So when you are middle class, you would never consider "基層" to be something related to you. But in fact, it is a wrong concept, as I discussed with Prof. Ben Fong earlier. Should not we be using the correct term when we talk about primary healthcare?

Because primary healthcare has nothing to do with just grassroots families. It is about everyone. It is about preventive healthcare, early treatment, early detection of disease so that treatment can be available to you as early as possible, which improves your quality of life and reduces your cost of treatment. And let us say, for example, if you invest $1 billion in preventive healthcare, you can save $10 billion in the future. Do you know how much we spend in the Hospital Authority or in public healthcare services? Every year, we spend about $100 billion. There is a wrong concept among Hong Kong people, including patients, that we go for treatment only when we have the disease. Sometimes it is too painful, and sometimes it is too

late for treatment. So now, when this administration has started, although it may be late, we are finally talking about primary healthcare. I think everyone will have a role to play in educating Hong Kong people to do something about their health themselves, and at an early stage, because health is their own property.

We have to do something about it. As a patient group, we would educate people to do something about their health earlier. There is also an issue with DHC, because in the Mrs Carrie Lam administration, she started her term in 2017 and the idea of having DHCs was introduced. However, at the end of her administration, if you look at the 18 districts in Hong Kong, not every district has a DHC. There are smaller-scale DHCs in some areas. For example, in the North District, New Territories, Fanling, Tai Po, etc., they don't have a DHC at the moment. So they can only provide very minimal service to the community, and it will take another two years to have a sizable building to provide these services.

I would not say it's too late, but at least they are doing something. Another problem is that the government expects NGOs to run the DHCs, not by the government itself. But the local NGO has to submit a tender and run it with a budget. Sometimes they have a very limited budget to run the DHC. So I think in the future the government should put more resources into supporting NGOs in running these DHCs. I can see the concept behind NGOs running DHCs and that is a good point, but the problem is they do not have experience doing this, and they are just doing it because the government wants them to. It becomes an obligation. If you want funding, you have to do something. That creates problems, as they do not have the expertise to do this. Also, there is a mentality in the general public in Hong Kong: people expect to get medical service as soon as they want it, so there is a huge demand for services from the Hospital Authority.

We need to change this mentality because, with the new Primary Healthcare Commission, they are working to help people get early detection of disease and early intervention. We must accept that, when it comes to taking care of our own health, we need to engage with the system earlier. For example, registering at the local DHC and having some health checks. There are also some plans by the government, for example, the Chronic Disease Co-Care (CDCC) plan. If you join, you will get a subsidy for your body check, and when you have a condition, they will give you further assistance so you can have your disease treated in an earlier and more affordable way.

Ms Yuk-mun NG

Just to follow up on the topic of DHC, I am working in an NGO, the Hong Kong Society for Rehabilitation, which is one of the operators of DHC among fourteen operators, and currently we are helping the government to operate three DHC Expresses. As the panellists said, I think you all know how to play the game. We need to bid for the project, and that means it is a contract-based job of only three years. That means the experience built or the knowledge gained, at some point, will be dismissed, and then a new operator takes over.

For your information, we are operating three DHCs, and one of the DHC Expresses that we did not bid for last year will change to a new operator. At the moment we are currently handing over to the new operator. As for the other Express, because of strategic consideration by our Executive Committee member, we bid and luckily we got it. However, we are facing different challenges because the key performance indicators (KPIs) and output requirements are much higher and different. So, I echo the sharing from the panellists that DHC has been running for nearly six years. What I feel, speaking on behalf of myself, is that we are only operators. I see my three teams, each with around twenty staff. They work very hard to meet the outputs and KPIs. They work hard to follow the guidance and instructions from the government in providing the services. They gradually formulate guidelines, policies and protocols, etc. But we are still considering what is the model for DHC. We know that in late 2023, CDCC was introduced, which has contents different from what we anticipated when we applied to operate a DHC. That means everything is changing.

Even though there are eleven DHC Expresses and seven DHCs, the expectation for eighteen DHCs is the same. That means my three teams, their KPIs or target outputs are actually the same as the big DHCs because the expected, projected targets from the government are based on the population of the district. So, I think my team is passionate about working in primary healthcare under the DHC setting. However, for some staff, especially supporting staff, the turnover rate is very high. Sometimes, when we carry out internal recruitment from our organisation, from other units working in rehabilitation services, they do not want to change, especially the supporting staff, as they know that they will be very busy and the workload and demand are very high.

So, as an NGO and one of the service providers, for my organisation, our mission is still to contribute to primary healthcare in Hong Kong as one of the stakeholders. During the past few years of operation, we have tried to put resources into research to see the effectiveness of interventions by our approach, because sometimes there is no standard protocol and sometimes the government provides a standard protocol. We want to apply what we have used for patients with chronic illness in other services: we adopt patient empowerment, self-management and a transdisciplinary approach. We adopt this approach in our DHC unless the government does not allow it. If possible, we will continue to insist on transdisciplinary approaches and patient empowerment. Although you can hear about the Patient Empowerment Programme (PEP) in DHC. But the methodology for conducting this PEP is varied among different DHCs. As far as our organisation is concerned, we have adopted this transdisciplinary approach for over twenty years with chronic disease patients.

We use this approach in PEP in our DHC, which is cost-effective, more efficient, and can help patients or members achieve behavioural change. I think the most important aspect is change, impact, and health improvement. As far as I know, some operators may use a multidisciplinary approach in a programme. Every session is provided to talk to the patient on a specific topic. But how to use self-management skills to help patients achieve behavioural change is very important. Otherwise, we are just basically delivering talks, and we do not know the effect on the members. What we want is for them to change their lifestyles and to adopt healthy behaviours to help prevent and manage chronic disease. I think there are still a lot of problems, and we hope we can work with the government. We are not only operators but also stakeholders and can, as peers, make suggestions and give advice on how to formulate the model together. I think our role is not only as operators, but we can be advocates. We can build research and training bodies to work with the government and train more people to join primary healthcare because professionals are so expensive and limited. We need to recruit more staff. We refer to this group as community health workers, but different DHCs have different titles because there is no standard. We prefer "health promoters" and "community health officers", and these are the titles we use. But elsewhere we do not know what titles are used to attract associate degree or diploma holders to apply. This group of the workforce is very important, and I think the government should think about how to train this group, so they feel they have a career path or fit within a qualification framework. This is what I want to share.

Mr Jimmy WONG

I agree with you to a certain extent. No, but let me say I feel a sense of fairness towards the government. Since the last Bureau had Prof. Sophia Chan, she started the development of PHC six years ago, in 2019. The Bureau did inject a lot of money into PHC. Their aim was to have an active number of DHCs in every district. From what I understand, they have already allocated money and spent a great deal on DHC. It's fair to say that, but at that time, it was very difficult for them to source venues because there were constraints regarding the size of the DHC, as they wanted them to be near the MTR and public areas for greater convenience. But there were not such locations available, as the city is already very built up with many buildings, including commercial ones. So they have tried very hard. Up to now, there are only eleven DHCs. There is also what has been termed "Express", which refers to a very small DHC, or small-scale centre, because a suitable place could not be found in those areas. That is true. I can say this because I have attended the regular meetings. They have tried very hard to identify new sites one by one. For example, in Mong Kok, they are using the nearly old market.

It is fair to say this, but I do not agree with some of the points regarding KPIs. As I mentioned, different districts have different populations and cultures. For example, in Sham Shui Po, there are a lot of people from lower-income groups mixed with some higher-income residents with different cultures, and different population characteristics. I have seen, in some DHC community work meetings, that they work hard to draw the attention of the population, but as I said, my feeling is that they lack experience, and their mindset is still traditional. I would say there is a low business mindset and a lack of proactive thinking. They do not make enough effort to go outside of the office and into the community to work.

Then, you ask why district offices were slow at the beginning. I think it is because the relationship between the district office, District Council, and many large NGOs is crucial: they are key stakeholders in that district, and their involvement is very important. For example, you see many mobile vehicles used to promote this initiative in some larger districts. At the beginning, they used cars for promotion because there were concerns about parking and penalties, and sometimes promotion was not allowed. I shared my experience with the police and District Council so long as you keep to the agreed schedule and the service is for the public good, they will cooperate. Remember, the service is for the public, for the benefit of our citizens.

Even the MTR agreed to allocate space for promotion and direct the public to the new service, which is important for promotion and engagement. They need to try to utilise all available community resources. This is very important because community resources are plentiful, from charity funds and various sources. If these groups are involved, if they participate, they will assist with promotion, which is also important for sharing their knowledge. I have requested statistics on members joining their local committees, such as District Council or Area Committee, etc. The citizens run these meetings, select roles for themselves, and help with promotion, making good use of local resources.

Online Question

I agree that the PHC concept is very weak in Hong Kong, even though lots of people are talking about PHC. I guess most healthcare colleagues do not know how to put it into practice in our everyday work. We have already addressed that. How can a health issue KPI be achieved given such a short project period of three-year contracts?

Ms Yuk-mun NG

As I know, the KPI at this time only concerns numbers, not health issues. How many members do you include? How many are registered with the CDCC? For the CDCC, if a person is diagnosed with hypertension, they will go into the management phase. Because it still in the process, I am not sure what the government will do.

Prof. Ben FONG

It is really difficult to project in health, because our bodies change every second or even faster. How can you project accurately, right? So it is difficult. But there are certainly some measurements which are objective and feasible, so there is a lot of work to do.

Mr Alex LAM

I think the discussion of KPIs has no meaningful result because, when talking about primary healthcare, we are talking about the participation of society, and the participation of people in the community. Everyone takes part in the system, whether they have the disease or not. We talk about preventive healthcare, so public participation is important. We should not talk about

how many people you have treated at the centre. We should talk about how many people join the centre, take part in your programme, and take part in your assessment of their health, so that prevention and detection can be carried out earlier. Of course, in some districts, people are generally healthier than in others. It all depends on whether the district is working class or has a larger elderly population

We do not care about this but participation in primary healthcare is the key to success. So, at the beginning, the numbers may be important in assessing whether a centre is running good or not. But beyond that, it all depends on the background and health situation of the people. The more people who join through promotion and education, the more meaningful.

Prof. Sally CHAN

As a training institution, our objective is to educate healthcare professionals who are equipped to address the needs of the community. Nevertheless, our curricula are subject to the oversight of professional regulatory authorities. For instance, upon my return to Hong Kong, I observed that specifically, within the training programme for enrolled nurses, the allocation of hours dedicated to primary healthcare settings was notably limited, with all students required to undertake clinical placements predominantly in acute care or hospital environments. For registered nurses, community placements were afforded only a brief period. At that juncture, I corresponded with the Nursing Council of Hong Kong (NCHK) and Health Bureau, to question the rationale behind promoting primary healthcare while restricting students' exposure to such settings. It is unreasonable to expect graduates to be competent in primary healthcare environments without adequate training and experience during their pre-registration studies. Fortunately, the NCHK was receptive to these concerns, resulting in a syllabus amendment: it is now permissible for students' clinical hours to be undertaken in community or primary healthcare settings, albeit with a maximum cap of 30%. The lack of personnel adequately prepared for primary healthcare roles can thus be attributed to the historical inadequacy of training in this area. Therefore, curricular reform is imperative to ensure that students are both knowledgeable about and experienced in primary healthcare prior to graduation. Initially, District Health Centres (DHCs) did not permit healthcare students to undertake clinical practice within their facilities. This restriction had been the subject of advocacy. Recently, there has been a gradual relaxation of this policy, and it is hoped that increasing numbers of healthcare

students will be afforded opportunities to gain experience in primary healthcare. Such exposure is essential for fostering understanding and encouraging graduates to pursue careers in this sector, which is fundamental to the advancement of primary healthcare.

Prof. Ben FONG

I remember you shared this point two years ago at the policy forum at The Chinese University of Hong Kong, regarding capacity building. Unless we build the capacity, we do not have people who know the trade, so to speak.

Prof. Sally CHAN

The observed lack of proficiency among healthcare professionals in certain areas can be attributed primarily to insufficient training rather than an inherent deficiency in knowledge or capability. Consequently, it is incumbent upon us to provide opportunities for existing graduates to develop the requisite skills and understanding of primary healthcare. Simultaneously, it is essential to progressively integrate and strengthen primary healthcare components within the foundational training of future healthcare professionals.

Dr Luis Gabriel BERNAL-PULIDO

I totally agree with your comment and resolution. My point is related to this, because, as we remember, Prof. Elizabeth Halcomb showed in her previous presentation a quote from Einstein "if we expect different results but still do the same, we will not get different results; we will get the same results as always". So, if we want to change the system to a primary healthcare-driven system, then we have to make social changes at all levels, at the educational level, at the level of the health sector, and at the level of other sectors. We also have to change the culture, because, as we saw in Prof. Elizabeth's presentation, we learned to think that working on primary healthcare is like second-hand work, that it is not that important.

Perhaps I do not know much about Hong Kong so far, but what I can see is very similar to what I have seen in other countries. The highest remuneration is found in tertiary and quaternary hospitals. I understand that to work in those hospitals you require training, and training costs a lot, and it is fair to receive a good salary. But we have to position a society to value the work on primary healthcare, to change the culture, and to have the right incentives for the study and

development of career tracks in primary healthcare that are similar or of utmost importance, the work done in tertiary and quaternary hospitals.

That is one thing. As for assessment KPIs, it is the same. It is important to assess screenings and appropriate treatments. That is the role of primary care staff. But if we are widening our vision to primary healthcare, we need to start learning or designing KPIs that measure community outreach, stakeholder engagement, and patient-centred care. For example, the perception of patients: how have they been treated, did they receive appropriate explanations on their health condition, were they trained or did they receive information on how to improve their diet. If we keep measuring only the same biological factors, which are still important, we will not really change the culture towards a primary healthcare mindset.

Prof. Ben FONG

There is a potential change starting on July 14 with the new appointment of the Under Secretary for Health. Dr Cecilia Fan Yuen-man has a background in primary care, community health, and family medicine, and we have high hopes that in her remaining two-year term, she will lead us further towards primary care and other advances.

Response from the floor

I just want to add to what you two (Prof. Sally Chan and Dr Luis Gabriel BERNAL-PULIDO) are saying. I think we really need to start at the very beginning, at the education level with students. So, working with the curriculum and new medical schools, that is one of our main emphases whether it's going to be UST, PolyU, or whichever institution, it does not matter. I think the same principle needs to apply, because we are actually starting our students from year one, and within weeks they have to have primary care exposure for the whole duration. Another thing we have been discussing with Sally is that we are going to have students undertake interdisciplinary interaction. So, part of the curriculum I am involved in includes a transition-to-clerkship phase, where the students work with all the allied health training. We are going to be spending time at Tung Wah College, with the nurses, occupational therapists, physiotherapists, and to really have an interdisciplinary approach.

We have to start this change in mindset right at the student level. Then, patients at the primary care centre will be accustomed to this exposure to multidisciplinary interaction. I think it is important, certainly in the Middle East, where I come from, we espoused a lot of this. It was really very successful in terms of having the primary healthcare centres, and the students and multidisciplinary students going to them, and then they got used to the idea that they might encounter pharmacists or even dental staff there. So, there are multiple disciplines and students are drawn to those centres. So, I think we must start from education.

Prof. Lorna SUEN

Our mission, as a nurse educator, is to emphasise the importance of nursing education in primary healthcare. I think, despite the curriculum restrictions, we actually have some theoretical input on public health, primary healthcare and community nursing. Apart from the theoretical aspects, we also emphasise student experience in the community for conducting community projects. This conference has attracted many students to submit their projects. You can see how they demonstrate their commitment to community projects related to primary healthcare. Our laboratory is not only focused on medical-surgical training, but also emphasises, in addition to hospital-based training, the importance of working in the community. We have many teaching devices in our laboratories to highlight the importance of hand hygiene, a balanced diet, how to promote texture-modified food production in the community, bone mass density screening, and similar topics. All this covers health promotion elements, not just disease-specific training, and as the largest nursing training ground in Hong Kong, we cover this fully.

Question from the floor

Hello, I am from DHC. The reason I say this is because I feel the DHC service is not very effective nowadays. I would like to provide a real picture of what is happening in the DHC service. In my district, my community is about 500,000 in population. According to the policy, the main service target is those over 45, the group most in need regarding chronic diseases, so that means in my district, about 250,000 people. Now, out of those 250,000, we are serving about 50,000 members, which is around 20%. In a traditional model, for social centres in the district, we deliver our services in our centre and use our own facilities, including the call centre and satellite centres. There are limitations. We have about 100 staff to serve a population of

250,000. This is not enough, and you understand the reality. So, the traditional way of providing primary healthcare services is not effective. In reality, primary healthcare service is something new. It is not a clinical model. The traditional clinical model means that when you are ill, you go to a clinic for help. Primary healthcare service is different. We are not just serving those with existing diseases. People may be healthy or have hidden chronic diseases. The service is to identify issues, screen, and make people aware of their health risk. So we have to operate differently. In my opinion, we should not follow only traditional promotion. We need to reach out to NGOs, government departments, and neighbourhoods to leverage their networks and train their staff to be aware of health issues. If we cannot do that, we cannot provide the service by ourselves. It is a movement to deliver primary healthcare. We need to create cultural change and a social movement within the community. In our work, from our perspective, this is what social prescribing is all about.

Prof. Ben FONG

So we have to think out-of-the-box and involve other professionals.

Prof. William WONG

So far, I have heard a lot of discussion about DHCs and the shift of emphasis from a disease approach to a very preventive approach in our medical schools. I do actually teach health promotion, as do our colleagues in the School of Public Health. We teach a lot about health promotion to medical students, and we must not lose sight of the fact that this is about culture shift and changing people's behaviours. The focus really should be on the users, clients, or patients who, because they are not ill, are being reached through prevention. Those who are members of society in the private sector, they are always paying, so we leave them alone. The Commissioner (for Primary Healthcare) has been talking about shifting, and the blueprint is really talking about those who are on Comprehensive Social Security Assistance (CSSA) or in need staying in the public sector. The rest moving to the private sector. Original DHC ideas were to help in this process, but they are not the only tool. There are many others: discussions about legislation, supporting the role of the community pharmacists, setting up community pharmacy, curriculum reforms in nursing for more community exposure, and the creation of healthcare promotion officer roles. This varies from place to place, so there are multiple angles going in the same direction. I must say, I remain hopeful for Hong Kong despite all the

problems and challenges we face. With the adoption of women's health services, elderly health services, and various others requiring clinical input, people will come in and the numbers will increase. The focus should be on the users. We hear a lot about KPIs in DHCs, but there are not many that ask how the users feel or whether the service has improved their health. That is a big gap in our reform so far. I think we are moving in the right direction, and I hope things will work out in the end.

Prof. Ben FONG

Yes, tomorrow is always better. And I do have this philosophy that the beauty of life is that we do not know what is going to happen tomorrow. So that keeps me going. I make sure that I wake up in the morning. Now, we do have a comment from an online participant: “I think public healthcare is weak on both the care provider and public side. The provision of primary care is too insufficient for the public. For the public, it is very difficult to book a General Out-patient Clinic (GOPC) quota every day, which is true and not that true, depending on whether you know how to use the “HA Go” app. This is inconvenient for chronic patients. If their condition gets worse, the only thing they can do is to attend the A&E department, and the public is lacking in their management of their own health.”

I am sure we are promoting health management, and not only in PHC. Everywhere, people only seek screening when they are ill, which is true, or it is required by their company. The cost might be expensive, as Prof. Yuen mentioned yesterday. So it is difficult for PHC development. Difficult, but not impossible. Is that right? We are hopeful, and we must reorganise the healthcare system and teach the public about their own health management. PHC is not easy moving forward, but we are very confident that the government will continue to do better and better. With the participation of everyone here representing different stakeholders, I am sure it will work out.

Primary healthcare is about holistic care, comprehensiveness, and continuity at our doorstep. I adopted this term “doorstep” from Premier Wen Jiabao when the central government issued what they call the “Red Head” (official) document on primary healthcare. “基層” in Chinese Mainland has no problem, it is the most correct Chinese term. In Hong Kong, in our culture, we consider “基層” as meaning the underprivileged. So, there is no problem in the Chinese

Mainland when they talk about having services and a doctor at your doorstep, which means in your neighbourhood. So, it is the first point of contact. This is extremely important if we want to promote the idea of family doctors for all. It is the first contact; you don't go elsewhere, and it is also the first point of consultation in the locality where people live and work. So, I propose that primary healthcare should be everyone's business. It’s very “primary”, like primary school is the foundation for anything and everything, not only for health. I am working on a book proposal to shape holistic care through health and social collaboration. It is not health alone, we should not focus only on diseases or health etc. There should be a wider involvement.

2.5 Empowering the Future of Primary Healthcare: Equipping Students for Active Engagement in Policy Development

Prof. Sally CHAN

President, Tung Wah College, Hong Kong, China

Key Messages

- Active engagement and participation of nurses in the policymaking process is a pivotal determinant of resource allocation within primary healthcare systems. The cultivation of key competencies—namely, critical thinking, negotiation, advocacy, and data analysis—is essential in preparing nursing students to confront and resolve real-world healthcare challenges, while also equipping them to contribute effectively to the development of primary healthcare policy.
- International and local precedents, evident in places such as Hong Kong, Canada, Singapore, and United States, illustrate the influential roles nurses and nursing students have assumed in leading and participating in community health initiatives and projects, as well as interdisciplinary collaborations. These examples underscore the capacity of nurses to effect meaningful change through sustained involvement in both local and broader policy contexts.
- Practical experience, interprofessional education and collaboration, engagement in policy-oriented group projects, involvement in community health initiatives, and direct interaction with policymakers are all fundamental to fostering robust student participation in the formulation and advancement of primary healthcare policy. Such approaches are instrumental in bridging theoretical knowledge with experiential learning, thereby enabling students to assume active roles in shaping the future of healthcare delivery.

The question of funding for primary healthcare remains a significant global challenge, with access to essential services still restricted in numerous regions. This issue is intrinsically linked to the policymaking process. Frequently, individuals may assert that they are uninterested in politics, perceiving it as irrelevant to their personal or professional lives. However, fundamentally, politics concerns the allocation of resources—determining who receives

resources, the timing of distribution, and the mechanisms by which these resources are delivered. Political processes shape health policy and societal organisation, directly influencing resource allocation within healthcare systems.

It is therefore imperative for stakeholders to actively articulate their needs to governmental authorities. Without advocacy and engagement in the political sphere, securing funding and expanding training opportunities becomes exceedingly difficult. This underscores the necessity of participating in policy discourse and highlights the critical role of student involvement.

Students represent the future leadership of the healthcare sector. Empowering students to recognise their potential influence on health policy is essential, as they possess the capacity to contribute meaningfully to policy development. Educational experience reveals that students often generate innovative solutions and perspectives, owing to their fresh viewpoints and direct engagement with the realities of healthcare delivery. The relevance and originality of their contributions can significantly enhance policy responses to contemporary challenges. Thus, preparing students to assume active roles in shaping the future of healthcare is of paramount importance.

The involvement of nurses in policy, policymaking, and political processes is well established. Florence Nightingale, widely regarded as the founder of modern nursing, serves as a historical exemplar. Following her service in the Crimean War, Nightingale's prolific writing and advocacy exerted considerable influence on hospital and public health reforms in the United Kingdom, with her impact subsequently extending across Europe and globally.

Examination of historical records reveals numerous instances where healthcare students have played pivotal roles in shaping policy and political discourse. For examples, within the nursing profession, the creation of the Sigma Theta Tau International Honour Society, now recognised as the second largest nursing organisation globally, is particularly illustrative. Founded in 1922 by six nursing students at Indiana University, the organisation emerged from their proposal to establish a body dedicated to nursing scholarship and professional development. Supported by the nursing school, Sigma Theta Tau has since evolved into a leading authority influencing nursing education, research, and policy worldwide. After World War II, U.S. medical students

played a key role in pushing for a national insurance system.

Contemporary literature, however, indicates that nurses' engagement in policymaking and political activities remains limited. For instance, Schindler et al. (2025) report that nurses frequently serve as implementers rather than architects of policy, a phenomenon attributed to factors such as interprofessional power imbalances and insufficient training in public policy. Further, a systematic review by Hajizadeh et al. (2021) identifies a range of determinants that affect nurses' participation in healthcare policymaking, underscoring the ongoing challenges and complexities inherent in fostering greater involvement among nursing professionals.

Broadly, three principal barriers can be identified: insufficient knowledge, limited awareness, and a lack of interest. Collectively, these factors contribute to a sense of powerlessness among students, leading to the perception that they are incapable of effecting change and, consequently, a diminished motivation to engage with policy matters.

Against this backdrop, the pertinent question arises as to how effective engagement in policymaking can be fostered among students. It is essential to consider the mechanisms through which students can be equipped to participate meaningfully in policy discourse and actively contribute to policy formation. Beyond the foundational competencies of leadership and problem-solving, four key skills are particularly vital in the context of policy development.

First, critical thinking is indispensable; students must be adept at policy analysis, constructing coherent arguments, and making well-informed decisions. Second, negotiation skills are crucial within the political arena, recognising that outcomes are often the result of compromise and not absolute victories. The ability to lobby, negotiate, and accept outcomes is therefore fundamental. Third, advocacy and efficiency are paramount, particularly for nurses and healthcare professionals tasked with representing patient interests; thus, strategies for raising awareness and effective advocacy must be cultivated. Finally, proficiency in data analysis is essential, encompassing the collection and interpretation of data to inform decision-making processes. Collectively, these four competencies are integral to the development of effective policy practitioners.

Here are examples of ways to involve nursing students in policymaking.

University of Alberta (Canada) – Public Health Advocacy Course

The University of Alberta offers a dedicated public health advocacy course that exemplifies the integration of policymaking competencies within the academic curriculum (Morris et al., 2019). This course is characterised by clearly defined objectives and structured activities designed to cultivate essential skills in advocacy, policy analysis, and argument development. As the course progresses, students are tasked with selecting a pertinent public health issue, conducting a comprehensive analysis, and formulating a policy proposal. A notable feature of the programme is the requirement for students to organise a live media event to launch their project, thereby facilitating the acquisition of media presentation and public speaking skills. The breadth and depth of this approach underscore the value of experiential learning, emphasising the necessity for students to engage in practical, hands-on activities that extend beyond theoretical instruction within the classroom.

University of California, San Francisco (UCSF) – Policy Analysis on Nurse-Patient Ratios

An illustrative example of student engagement in policy development can be observed at the University of California, San Francisco (UCSF). Within this institution, nursing students undertake a comprehensive policy analysis project focused on the evaluation of California's nurse-to-patient ratio regulations. As part of this initiative, students systematically examine the objectives underpinning the policy, critically assess its effects on both patient care and nursing workload, and subsequently formulate evidence-based recommendations for potential improvements (Spetz et al., 2009). The culmination of this project requires students not only to produce a scholarly paper but also to present their findings directly to local hospital administrators and state policymakers. This experiential component affords students the valuable opportunity to engage with key stakeholders and contribute meaningfully to discourse surrounding prospective amendments to nurse-to-patient ratio policies. Such practices represent a significant pedagogical approach, providing students with practical exposure to the complexities of policymaking processes and stakeholder engagement, which are often otherwise inaccessible within the standard curriculum.

Johns Hopkins University (USA) – Simulation-Based Policy Advocacy

At the Johns Hopkins School of Nursing, simulation-based advocacy forms a core component of policy education. In a notable example, students are presented with a scenario involving abrupt modifications to opioid prescription regulations. Within this context, students are required to devise strategies that ensure compliance with the revised regulations while maintaining effective pain management for patients. This simulation-based exercise exposes students to the multifaceted challenges inherent in policy change, fostering their ability to adapt clinical practice in response to evolving legal frameworks. Moreover, the experience underscores the necessity of patient-centred advocacy, as students must navigate regulatory constraints to uphold the quality of pain management. Through this pedagogical approach, students acquire practical skills in policy adaptation and develop a deeper understanding of the advocacy required to safeguard patient welfare amidst regulatory transitions.

University of Pennsylvania (USA) – Interdisciplinary Policy Proposal on Telehealth

At the University of Pennsylvania School of Nursing, interdisciplinary collaboration is emphasised through policy proposal projects. Nursing students are grouped with peers from other healthcare disciplines to address issues related to healthcare accessibility for underserved populations. These interdisciplinary teams engage in research, data analysis, and the development of comprehensive policy proposals aimed at expanding telehealth services. Subsequently, their findings and recommendations are disseminated to local health departments and community organisations. This initiative exemplifies the critical role of interdisciplinary cooperation in policy development, illustrating how collaborative approaches can effectively influence and shape local healthcare initiatives to improve access and equity.

Duke University (USA) – Nurses for Mental Health Awareness

At Duke University, nursing students established the group “Nurses for Mental Health Awareness” as an innovative initiative to promote mental health advocacy. Central to their efforts was the “Cranes for Life” exhibit, which utilised the traditional Japanese art of paper crane folding as a symbolic focal point. This exhibit served as a catalyst for dialogue among students and faculty concerning mental health awareness and the availability of mental health resources. In addition to the physical exhibit, students leveraged online platforms to foster community engagement, mobilise support, interact with policymakers, and advance a broader

advocacy movement for mental health. This approach exemplifies how creative mediums can be harnessed to initiate meaningful conversations and extend advocacy efforts beyond the immediate academic environment.

University of Michigan (USA) – Virtual Policy Advocacy with Legislators

At the University of Michigan School of Nursing, students engaged in a virtual advocacy initiative with state legislators to address policy issues surrounding nurse practitioner autonomy. Through online meetings, students articulated the significance of nurse practitioners and advocated for expanded practice autonomy. This virtual engagement provided a platform for students to present evidence-based arguments, share professional insights, and contribute substantively to legislative discourse on advanced nursing practice. Such activities underscore the value of direct student participation in policy advocacy, equipping future nurses with the skills to influence health policy and effect systemic change.

Tung Wah College (Hong Kong) – Student Engagement During COVID-19

In considering student engagement in Hong Kong, particularly during the COVID-19 pandemic, Tung Wah College provides a notable example. During the fifth wave of COVID-19, a cohort of students met with a group of Legislative Councillors. This engagement was strategically organised due to the students' extensive frontline experience during this period, which included direct patient care within Kai Tak Holding Centre and residential care settings. Their involvement afforded them valuable insights into the operational realities, challenges, and barriers present within aged care facilities at the height of the pandemic. During their meeting with the Legislative Councillors, the students systematically presented information concerning the state of facilities, the adequacy of training, and the specific obstacles encountered in these settings. Furthermore, they articulated their perspectives on potential solutions, proposed interventions for governmental consideration, and identified areas where additional resources could be effectively allocated. This experience proved instrumental in fostering the students' capacity to synthesise and communicate their frontline experiences, while also enabling them to contribute meaningfully to policy discourse and advocacy efforts.

Policy Meetings and Internships

Students are consistently encouraged to attend Legislative Council or District Council open meetings that address healthcare policy matters. Additionally, participation in internships during summer breaks within the offices of Legislative Council Members is strongly advocated. Such experiential learning opportunities are regarded as highly valuable.

It is acknowledged that universities frequently facilitate overseas trips for students, designed to enhance cultural understanding and academic learning. At Tung Wah College, annual overseas study tours are organised, each centred on a specific theme, such as technology or other pertinent areas. Irrespective of the destination, the itinerary invariably includes a visit to the Embassy of the People's Republic of China. Recent trips have included visits to Singapore and Germany, with previous cohorts having travelled to Israel, Cambodia, and other countries.

The rationale underpinning the inclusion of embassy visits is to broaden students' global perspectives. Beyond acquiring knowledge related to healthcare systems or cultural practices, students are encouraged to engage with the political context and policymaking processes of host countries. These visits provide students with opportunities to interact with key stakeholders, articulate developments occurring in Hong Kong, introduce Tung Wah College, and discuss their academic pursuits. Such experiences are intended to build students' confidence in engaging with influential individuals and to foster a deeper understanding of the interplay between healthcare, culture, and policy at both local and international levels.

Challenge-Based Learning Projects

In addition to broader strategic initiatives, Tung Wah College places significant emphasis on cultivating advocacy skills among its nursing students within the local context of Hong Kong. The College employs a "challenge-based learning" approach, whereby students are tasked with identifying global issues and subsequently refining their focus to address more specific, actionable local topics. For instance, a student group elected to investigate the topic of organ donation, recognising that, despite the existence of an organ donation policy in Hong Kong, participation rates remain notably low. To elucidate the underlying factors contributing to this phenomenon, the students undertook a comprehensive inquiry involving interviews, public surveys, and data analysis. Based on their findings, they formulated potential interventions and

launched a public awareness campaign, which included the creation of a dedicated Facebook page and the production of promotional videos disseminated via Facebook and YouTube. This example illustrates the integration of critical thinking, data analysis, and advocacy training within the curriculum, equipping students with the competencies necessary to address complex social issues.

Conferences are identified as a particularly effective platform for this purpose. By participating in professional conferences, students are afforded opportunities to present their work, engage with experts in their respective fields, practise critical thinking, and refine their public speaking and self-presentation skills. The encouragement of conference attendance thus serves as a valuable mechanism for fostering professional growth, networking, and the acquisition of advanced communication competencies.

Interprofessional Community Health Initiatives and Events

In addition to the aforementioned initiatives, community health projects play a pivotal role in the holistic development of students. It is essential for students to actively engage with the community, cultivate leadership abilities, participate in interprofessional learning, and contribute to addressing regional health challenges throughout the academic year. Such engagement is not unique to one institution, as numerous universities are similarly involved in various community health endeavours.

A Norwegian multidisciplinary rural placement project provides a compelling illustration of multidisciplinary clinical placements, wherein students from nursing, medicine, and allied health professions are immersed in rural healthcare settings. During these placements, they collaboratively manage patients with chronic illnesses and complex care needs. This interprofessional approach fosters the generation of creative and innovative strategies for the management of chronic conditions, challenging conventional paradigms of professional practice. The significance of such openness lies in enabling students to introduce novel perspectives and practices, ultimately effecting meaningful change within established healthcare systems. The success of this initiative underscores the importance of equipping students not only with the competencies required for assessment and intervention, but also with the confidence to advocate for and implement progressive changes in traditional practice,

whilst engaging constructively with long-standing healthcare professionals.

Drawing upon personal experience in Singapore, a pertinent example is provided by the collaborative efforts among nursing, medical, pharmacy and allied health students from two tertiary institutions. This led to the formation of interprofessional teams, exemplifying interdisciplinary cooperation in health education. On one notable occasion, a nursing student - spearheaded an initiative known as Project Silver Care. This project involved students conducting health assessments and delivering health education to older Chinese residents in the Chinatown district over consecutive weekends. The interdisciplinary teams conducted health assessment and subsequently convened to devise comprehensive care plans tailored to the needs of the older population. This initiative not only demonstrated the value of interprofessional education but also facilitated a thorough assessment of community health status, enabling the development of longitudinal plans for ongoing community engagement and support.

Similarly, in Hong Kong, a multitude of community health initiatives are undertaken. For instance, as part of Tung Wah College's 15th anniversary celebrations, all academic disciplines students, supported by faculty, participated in health assessments and educational activities for the Tsim Sha Tsui community. Various student groups - including those from early childhood education, health information and services management, gerontology, nursing, physiotherapy, occupational therapy, psychology - conducted assessments and provided health education.

While such events are beneficial, it is recognised that single, isolated activities are insufficient for achieving sustained impact. Future initiatives will see interdisciplinary student teams working with designated local communities over substantial periods—often two to three years or more. This ongoing engagement includes continuous evaluation, focused interventions, and systematic follow-ups to track health progress in these populations. Such programme aims to look further than just basic statistics, such as how many people use health services, by considering enduring indicators like improvements in community health and satisfaction rates over time. Through this sustained commitment, Tung Wah College intends to gain a richer insight into the health needs of communities and strengthen students' abilities to advocate effectively, based on a thorough understanding of genuine societal challenges.

Strategies for Student Engagement in Policy

A recent systematic review by Lee and Choi (2022) outlined various strategies to encourage students to become more actively involved in healthcare policy. In the systematic review, the authors examined seven studies and delineated six strategies, which were organised across three progressive stages of student engagement in health policy. The initial stage is characterised by passive involvement; for instance, students attend electoral meetings pertinent to healthcare, observe proceedings within District Councils, and, in one case, are required by their university to select a health policy and monitor its associated Twitter account to gain insight into policy analysis, debate, and discussion. The second stage necessitates a more active role, wherein students select a policy issue, undertake critical analysis, conduct interviews with policymakers to deepen their understanding, and subsequently prepare and deliver presentations on their findings. The third and most advanced stage involves direct contribution to policy development. Here, students may participate in legislative internships, collaborate with legislative members, and assist in the preparation of policy documents. These stages illustrate a spectrum of engagement strategies, offering educators and clinicians a framework to determine the most suitable level and approach for their students, based on their readiness and educational context (Lee & Choi, 2022).

Conclusion

In summary, it is widely recognised that empowering students to engage in healthcare policy is of paramount importance. It is incumbent upon educators to furnish students with the requisite skills and knowledge, thereby cultivating a future cohort of health advocates capable of strengthening both the healthcare system and primary care provision, while also advancing community well-being. To conclude, I would like to invoke the words of Nelson Mandela: “Education is the most powerful weapon which you can use to change the world.” This sentiment underscores the transformative potential of education. Accordingly, it is essential that students are adequately prepared to develop the confidence and expertise necessary to drive improvements in healthcare and community well-being in the years ahead.

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2.6 Gaps in Research in Primary Healthcare Policies

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Key Messages

- There is under-utilisation of community health resources, limited integration between health and social care, insufficient workforce capacity, and mental health is often overlooked. One-stop, prevention-oriented and community-based care are important for establishing a sustainable healthcare system.
- Lifestyle modification and prevention need sustained interventions, not one-off activities, and services must better match community needs.
- Digital technologies (e-Health, virtual reality devices, smart devices, etc.) and digital buddy programmes, are efficient and cost-effective ways for modifying health behaviours and improving digital literacy, particularly for older people, resulting in better physical outcomes and mental health in primary healthcare.
- For the research gap in primary healthcare policies, it is important to strengthen the health and social integration model, and develop and evaluate interprofessional collaboration services and model from the stage of service development to implementation.

I believe using education to transform our students, equipping them with the skills and knowledge to change policies is a sharp and powerful tool for advocating the policy changes needed for the people we serve. But I also believe that it is not just a single-edged sword, but a double-edged one. When we need to change policy, having skills alone might not be enough. We also need evidence to convince governments and policymakers what they need to do. So, this double-edge sword will be a very powerful weapon to change policies.

The topic I am going to talk about is the other side of the sword — the gaps in research and primary healthcare policies. So what is primary healthcare? Why am I still talking about this?

Because WHO recently published a policy paper, actually just March 26th, 2025. WHO said that the primary healthcare has undergone multiple redefinitions since 1978, leading to confusion about its practice. That is an undebatable fact.

The latest definitions of primary healthcare, I believe that it is much clearer. Let me read it very carefully: "*primary healthcare is a whole-of-society approach to health, aiming to ensure first to highest possible level of health and well-being, equitably distributed, by addressing people's needs early along the continuum from health promotion and disease prevention to treatment, rehabilitation, and palliative care, as close as feasible to their everyday environment*." "Early" - that is very important, we do not intervene everything at late.

So primary healthcare runs from one side of the continuum — from health promotion for those who do not have diseases — to the other side at the end, when they are facing death in terms of palliative care, but still, "early" is the keyword. And then we all do this work as close as feasible to the everyday environment. That is to say we do not change the environment. Everybody is living, I believe, comfortable lives. We intervene there; we work there. That is the whole idea of primary healthcare. So just to highlight a few more keywords once again; "highest possible level of health", "early", and particularly today I want to talk more about "health promotion" and "disease prevention".

There are a few key points that we need to pay attention to. Primary healthcare is to advocate for a shift from disease-centred health systems to people-centred health systems, not just treating the disease, which is very important. The second key point is to address broad determinants of health and to focus on comprehensive physical, mental, and social well-being, and to provide whole-person care throughout the lifespan. Particularly, I want to talk about prevention and promotion, these are very close to people's everyday environment.

Population Health for All, Not Just Grassroots

Remember three years ago, the Health Bureau, Hong Kong Government, published a very important Primary Healthcare Blueprint. I want to highlight a few points in this document where they stated what it is and what it is not. This primary healthcare serves seven million

people — everybody. And our prevention supersedes cure, so we are going to do prevention here in the blueprint and treat mild cases. Even if you have disease, treat mild cases. You will not wait until the late stage before seeing the doctor — for whole one-stop care and personalised health records for everyone. That is what we mentioned earlier: personalised, people-centred care, and then followed up at the doorstep, which simply means that we want to do everything in the everyday environment. I particularly want to highlight that this is not only for grassroots. I think probably because of the translation of the Cantonese term "gei1 cang4 (基層)" as grassroots, there might be a misunderstanding. But of course, this is not primary healthcare just for grassroots. In this blueprint, it is for everybody. It also said that the vision of the blueprint is to improve the overall health of the population, not just one disease, two diseases, or even a group of diseases, but overall health, and to provide accessible and comprehensive healthcare services.

The Role and Utilisation of Community Health Resources

Establishing a sustainable healthcare system is very important. One-stop care is surrounded by different healthcare professionals. What you need to do is just go to one place, and the people around you will serve you instead of you going from clinic to clinic seeking help. This is our idea of one-stop care. The strategies we are going to employ are prevention-oriented and community-based, but not hospital-based care. Family-centred care will involve the whole family and early detection with timely interventions.

Community-based strategy is very important. It depends very much on how we establish more primary care clinics and health centres. We name District Health Centre (DHC) in this blueprint. But do we have enough DHCs? Perhaps not. We often say we do not have too many DHCs but do we have any express clinics? Do we really have enough clinics? I want to talk about the importance of employing and using existing community resources to support this, not just relying on newly developed clinics. This is a very important concept. We must also provide training resources for healthcare professionals. Earlier speakers also mentioned how confident our existing healthcare professionals or our next and new generation of health professional students, in delivering primary healthcare, and their confidence might not be very high. So, education remains very important, as does encouraging collaboration between healthcare providers.

We have mentioned many times of interprofessional collaborations. This is exactly a cornerstone of the success of primary healthcare. What is happening here in Hong Kong? Because I am from the field of gerontology, I particularly want to say that we have a lot of elderly community care services. In short, I want to introduce that for the Hong Kong community healthcare services, they find the two types. The first is centre-based. So, we have a lot of the District Elderly Community Centre (DECC) and Neighbourhood Elderly Centre (NEC) to provide various types of services for older people. Basically, they are not necessary for older people to come here for cures or treatments. These centres provide health education, counselling services, provisions of information on community resources and recreational services. They are not detached from health.

In 2021, there are 41 DECC and lots of NEC, which are actually very accessible for older people to connect with. But is it possible for us to better utilise these existing community resources for building and supporting primary healthcare? According to a paper conducted by Shue Yan University, the utilisation rate for these centres is generally low. For the DHC, it might also not be very optimal. Another group of community services supports those who may not be able to live at home — they need to stay in long-term care facilities, or they may stay at home but need external support, for example, enhanced and integrated healthcare. But the waiting time is relatively long.

So, we talk about the underutilisations of some centres, not just about the DHC probably and also some elderly community centres facing a lot of decline of active members. When you ask them how many members they have, probably a lot, but how many active members, probably there are not too many. This is not just something happening in Hong Kong but also in Chinese Mainland China. This study mentioned that there is a underutilisation of community care facilities for the older people in China (Zhang & Zhang, 2024). There are a few reasons for this. Firstly, the demand for community care services outstrips supply. This does not mean we have too many centres. It means that the services they are providing may not match what people need or expect. Have we ever asked what they actually want? We talk about KPIs. How many services we have provided? Have we ever asked if these are the services people truly want?

Another reason is the inadequacy of facilities in meeting expectations. Do these services meet

expectations? Have we ever researched this? Have we asked them, instead of just telling people how many have been served by our services? Another factor is the high substitutability of community care facilities. Think about the recreational elements in elderly community centres nowadays. Do you think that people interested in going there for recreational activities or elements? Many have other welfare places to go, so alternatives are plentiful, particularly for the digital generation. They have relevant connections so that they may not need to go to these centres for recreational purpose. Of course, some reported that bureaucratic pressure is hindering facility development. Apart from these, there are also some personal factors affecting older people going to these facilities. For example, demographic shifts towards home engagement, many older people prefer to stay at home and receive services there. So going to centre to receive the services might not be physically need. Health issues also sometimes limit mobility. It is not that they do not want to go, they simply cannot, due to mobility limitations. And digital platforms also become very common around the world, particularly in Hong Kong after COVID-19, and this trend has accelerated, reducing the need for physical gatherings. Many people now meet friends or colleagues online more often than in physical contact way.

The DHC is considered the gold standard centre for providing primary healthcare. Some key functions included health promotions and disease prevention. But the key features of them are that they are also community-based services and district-based services. Every single district in Hong Kong, theoretically, if resources allow, should have one large centre there. This is not just a public service, but a partnership between public and private services and systems.

Another point mentioned in this paper is that the functions of the DHC are not just health-based or medical-based service centres. They are a model of medical, health, and social collaboration. More specifically, they operate as a multidisciplinary care bridge service model. However, when we talk about healthcare and social services integrations, how good are they really integrated? So think about lots of DHCs now are operated by NGOs. I believe that most of the NGOs operating DHCs are also running other health or elderly community centres. So, how well are these integrated to allow all centres to have a synergistic effect, interacting with and supporting one another to create a better model of primary healthcare? There is definitely room for us to think about this: how can we incorporate all these community resources together to support the big picture? We do not have enough staff members in the DHC to support, you

know, everyone. For example, in the Eastern District, how can we hire just 50 staff members to support 700,000 people? But DHC is not alone? There are also other centres. Can these models interact to one another, with stronger integrations to provide these services? This is a really important policy-level question to ask. The consequences of poor integration do not need to be explained. Another point I want to talk about is the importance of lifestyle modification. Another speaker earlier also mentioned that lifestyle change is the ultimate goal of prevention, because many existing centres just provide one-off activities, for example, a single health education talk such as Pilates or a healthy diet. But do people follow the advice? Have they changed their behaviours? It is not very likely because we do not believe that this one of courses might have a good effect. I do not mean such courses are ineffective, but the question is: "Have we really evaluated them?"

This is one very good example from *The Lancet*, this paper taking dementia prevention as an example. It shows that about 45% of the risk is modifiable. Many of them do not need disease-based model to change (Livingston et al., 2024). For example, modifiable factors, such as smoking cessation, increased physical activity, depression management, and obesity management, can be addressed by behavioural modification interventions. These should be provided in the primary healthcare setting instead of just managing chronic illnesses.

Mental Health

Mental health is another big issue. It is clear that, when you look at policymaking, even the Legislative Council considers strong academic evidence when making changes. Mental health problems are particularly severe among younger people, with much higher suicidal behaviours, even among youths aged 15 to 24. However, have they been adequately addressed or properly identified in primary healthcare centres? I am not sure. There are a lot of factors affecting the integrations of these services into the healthcare system, for example, attitudes, knowledge, motivation to change, financial issues, and everything. The challenge of mental health is often overlooked in the primary healthcare sector. So, we will be staying very much in the psychiatric units and hospitals to support this. So how about the primary health settings? What can we do? Integrating mental health into primary healthcare becomes very important, and we believe that our comprehensive policy changes are necessary for improvement. Increasing funding, we talked a lot about that, but more important than simply giving more money is making every

dollar worth. How can we make every dollar worth spending?

Digital Technology and Digital Literacy

Digital technology might be one solution, because it can make interventions, screenings, and other activities more efficient. Digital adoption has become very important. Our previous studies have shown that technology acceptance itself is directly associated with physical health and also mental health (Kwan et al., 2023d). It also moderates the effects of many health behaviours, such as physical activity. This study also shows that smartphone use ability is associated with depressive symptoms. In other words, digital literacy is also a very important strategy for promoting healthcare indirectly. We may not fully understand the mechanism, but I will say if you have better use of smartphone, you can more easily connect with people.

So, it is about digital illiteracy. This moderate all these factors. That is why the government recently launched a programme called "Smart Silver" to improve older people's digital training, which is important with health indirectly. And I want to highlight some features of our study. Our team's studies showed how digital health can be integrated here (Kwan et al., 2023b). For example, we can run a digital buddy programme, training older people to use smart devices, and integrating younger people as generation support to promote order people's mental health. We have also used the virtual reality for promoting mental well-being, providing new and therapeutic experience for older people living in long-term care facilities to promote their mental health (Kwan et al., 2023c). Evidence shows that it is effective for enhancing older people' physical health and mental health. E-Health and digital health are good ways to modify health behaviour. For example, in our early systematic review, we showed that e-Health is very effective for enhancing older people's physical activities in the long run, including increasing walking steps and maintaining physical activity, measured by both wearable devices and questionnaires.

How do we change behaviour in everyday environments? One of my projects launched a behaviour change intervention using e-Health technology, and it effectively engaged older people in brisk walking physical activity in their home settings, which is good for their health (Kwan et al., 2023a). They did not need to come to the centres, and we could supervise, monitor, and provide feedback for them remotely. It is very efficient because it also allows one person

to manage a group of participants at the same time, without needing to do everything in the conventional face-to-face way. This study also showed that it is equally effective compared to traditional behavioural change interventions we have used in the past.

We also developed a virtual reality motor-cognitive training programme in collaboration with occupational therapists and computer scientists for building interprofessional collaboration, which is very important (Kwan et al., 2024; Kwan et al., 2021). It is not just about asking for differences between professions but fostering interaction between them. Collaboration should start from the protocol development stage, but not at the last stage. This prototype has been used DHC, e.g., in Yuen Long. It is one of the good models for prevention and health promotion.

Concluding Remarks

When we talk about multidisciplinary, which is more like working independently, but for one person, they receive service from different disciplines. So, I think more effectively way is interdisciplinary, which means that one profession interacts with other professions to produce better services and better teamwork in a more effective and more cost-effective way. Even transdisciplinary in some contexts, for example, it is not necessary to be done in the primary health settings. It is easier done by nurse or physiotherapist. If this is developed by the whole team, everybody can play their roles, not necessary to be built by nurses, physical therapists or social workers, and they can switch their role. It makes the whole thing, the whole idea in the primary healthcare setting more effective. But have they ever been evaluated?

My concluding message is about the research gap for the policy. I think we need to evaluate the service model, strengthening the health and social integration model, and develop and evaluate interprofessional collaboration services and model from the stage of service development to implementation. Not just simply inviting different professions to provide the different independent services to the patients at one store but evaluating preventive interventions targeting a healthy lifestyle. Not just about how many patients we have served, but whether they have changed their health behaviours, and whether these changed behaviours have led to positive health outcomes. Services should also be identified that focus on mental health, which is very likely the missing element in the primary healthcare settings. In addition, research should be focused on developing and evaluating services integrating digital

technologies, which we believe represent an important trend. Recent studies, including our completed randomised trial of a nurse-led immersive virtual reality programme for older adults with physical disabilities, have shown promising potential in promoting mental health (Kwan et al., 2026). And this is going to be a more cost-effective and efficient way to deliver all interventions within primary healthcare settings.

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Closing Remarks

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First of all, I would like to thank everyone here and those online for attending and supporting the annual conference. This year, because it is an RGC grant event, we are guided by the proposal and have this specific theme on Primary Healthcare, which is very timely. In fact, we have conducted a number of seminars and forums on the subject, and I am sure our community—particularly those within healthcare and academia, is very well informed. I am also sure government officials are taking notice.

Over the last two days, we have opened up so many issues regarding Primary Healthcare in our region. There is something I have wanted to do for the last 30 years. I was involved in a book on "*The Principles and Practice of Primary Care and Family Medicine: Asia-Pacific Perspectives*." When Prof. Yuen and I were still young, we contributed to the book. Some authors have since passed away, including the lead author, Prof. John Fry from the UK. Over the years, I hoped we could produce our own book after having studied in Australia and always referring to books written in the West.

Now we have done it. As some of you may know, in March, Dr Vincent Law, Prof. Albert Lee, and I published a book called "*The Handbook of Primary Healthcare: The Case of Hong Kong*." We have put Hong Kong on the map through a leading international publisher, Springer. I invite colleagues and anyone who is interested in publishing books for our community and region to join us. My other book in the pipeline is the "The Handbook of Public Health in the Asia-Pacific." We have collected more than 35 chapters and it will be formally published next year. We need more books, because part of education is knowledge transfer, not just formal, conventional education. Publishing is another way, and we are privileged to have prominent professors, academics, and government officials involved.

We are so fortunate to have Dr Libby Lee here. Perhaps this is her last public ceremonial duty as the Under Secretary for Health, and we will be seeing her often as the Chief Executive of the Hospital Authority in another official capacity.

So, the annual health conference will come to an end after the parallel sessions, which will start in a few seconds. We still have two seminars and workshops in September and November. And we really would like more colleagues to join and share their views. As I said in the morning session that primary care is really everybody's business, we would like to have colleagues from the other professions to join hands with us. This morning Luis (Dr Luis Gabriel Bernal-pulido) was talking about heat waves in Hong Kong and this is engineering - it is environmental, not just health alone, it is safety.

On that note, I will not call this conference to a close yet, but I sincerely hope you enjoyed it. I thank the RGC for the funding, and all the organising and supporting organisations for their strength over the last 10 years. This is the 10th annual health conference we have organised at CPCE, and we are proud to build step by step.

I would like to thank my team, especially Tommy, who was a hard-working student and is now a colleague—perhaps he will become a leader. My teammates Oscar, Karly, co-investigators, and everyone. Without their support, we could not have organised such a successful event.

Good luck, good health, and I look forward to seeing you more often. Thank you.

Part III Executive Summary

The CPCE Health Conference 2025, themed "Primary Healthcare Policy Development in the Asia-Pacific Region," brought together international and local experts to address the critical need for robust primary healthcare systems. The conference highlighted Hong Kong's ongoing transition from a hospital-centric, treatment-focused model to a prevention-focused, community-based system capable of addressing the immense pressures of an ageing population and a rising chronic disease burden.

A central theme was the necessity of evidence-informed, people-centred reform. Experts from Chinese Mainland, Australia, Japan, South Korea, New Zealand, and the UK shared lessons on system design, workforce development, and sustainable financing. The discussions emphasised that effective primary healthcare is not merely a relocated service but a fundamental cultural shift towards proactive health management, equity, and whole-person care.

Core proposals and shared views from the conference include:

- **System Transformation and Governance**: There is a clear need for stronger governance and integrated care models. Australia’s Primary Health Networks (PHNs) and Japan's Community-Based Integrated Care System were presented as examples of how coordinated, locally-informed commissioning can reduce service fragmentation and better align resources with population needs.
- **Sustainable Financing**: Hong Kong’s current financing model, with its heavy reliance on out-of-pocket payments for primary care, discourages preventive services. Speakers advocated for shifting resources from low-value hospital care to high-value primary care and exploring mixed-financing models that blend public funding with strategic purchasing to ensure sustainability.
- **Workforce Capacity and Retention**: Building a resilient primary healthcare workforce is a global challenge. Key strategies include reforming education curricula to provide early exposure to primary care, creating clear career pathways, ensuring competitive remuneration, and fostering interprofessional teamwork to empower professionals like nurses and pharmacists to work to the top of their scope.

- **Evidence-Informed Policy and Community Engagement**: Effective policy development requires a multi-stakeholder approach. The Collective Impact framework was introduced as a method to engage communities, healthcare providers, academics, and policymakers in co-designing and assessing policies. This ensures that reforms are equitable, effective, and truly meet community needs.
- **Digital Transformation**: Leveraging digital health, AI, and data analytics is crucial for improving service efficiency, enabling early detection, and supporting evidence-based decision-making. However, this transformation must be strategically managed to empower, not overwhelm, the workforce and the community.

Ultimately, the conference concluded that building a resilient and sustainable primary healthcare system requires more than just funding; it demands a concerted, whole-of-society effort to foster a culture of prevention, build a competent and motivated workforce, and ensure that policymaking is an inclusive, evidence-driven, and continuous process.

Part IV Editors' Notes

The CPCE Health Conference 2025 was successfully held on 4 and 5 July 2025, from 9:00 a.m. to 5:30 p.m., in hybrid mode via Zoom and at the PolyU West Kowloon Campus. The event attracted 532 and 592 participants on the two respective days, with 80% joining online. Supported by 22 organisations and 2 sponsors, the conference provided a vibrant platform for dialogue and knowledge exchange.

All presentations and sessions were recorded with prior consent of the speakers. These recordings were transcribed, studied, reviewed by the respective speaker and incorporated into this publication to ensure the transcripts accurately reflect the depth of discussion and insights shared.

Across the two days, 14 presentations were delivered by scholars from diverse backgrounds, including academic institutions and professional bodies from Chinese Mainland, Australia, Japan, South Korea, New Zealand, the United Kingdom, and our city. Each speaker contributed valuable perspectives on the challenges and innovative strategies shaping primary healthcare policy development in the Asia-Pacific region. Collectively, these contributions fostered cross-cultural understanding, offered references for future policy formulation, and enriched the discourse on sustainable healthcare systems.

A highlight of the conference was the Panel Discussion on "Navigating Challenges and Addressing Concerns: Stakeholders' Perspectives on Primary Healthcare in Hong Kong." Local scholars, industry professionals, and NGO representatives examined pressing issues such as the integration of Chinese medicine and complementary therapies, the operational challenges of District Health Centres, and the evolving role of pharmacists in medication management. The discussion generated key recommendations, emphasising the importance of coordinated efforts among stakeholders to build a sustainable and impactful primary healthcare system.

In addition, a call for abstract papers was announced in advance, resulting in 25 accepted submissions. Each author was invited to deliver a 15-minute oral presentation with PowerPoint. These sessions covered themes ranging from innovative approaches to primary healthcare delivery to sustainable health policy and governance, alongside other health-related topics. The inclusion of student presenters added further richness, offering them opportunities to share their work, receive constructive feedback from experienced researchers, and build networks around their projects.

Overall, the CPCE Health Conference 2025 served as a vital forum for healthcare professionals, scholars, and practitioners to exchange ideas, deepen their research, and strengthen practical knowledge in primary healthcare development.