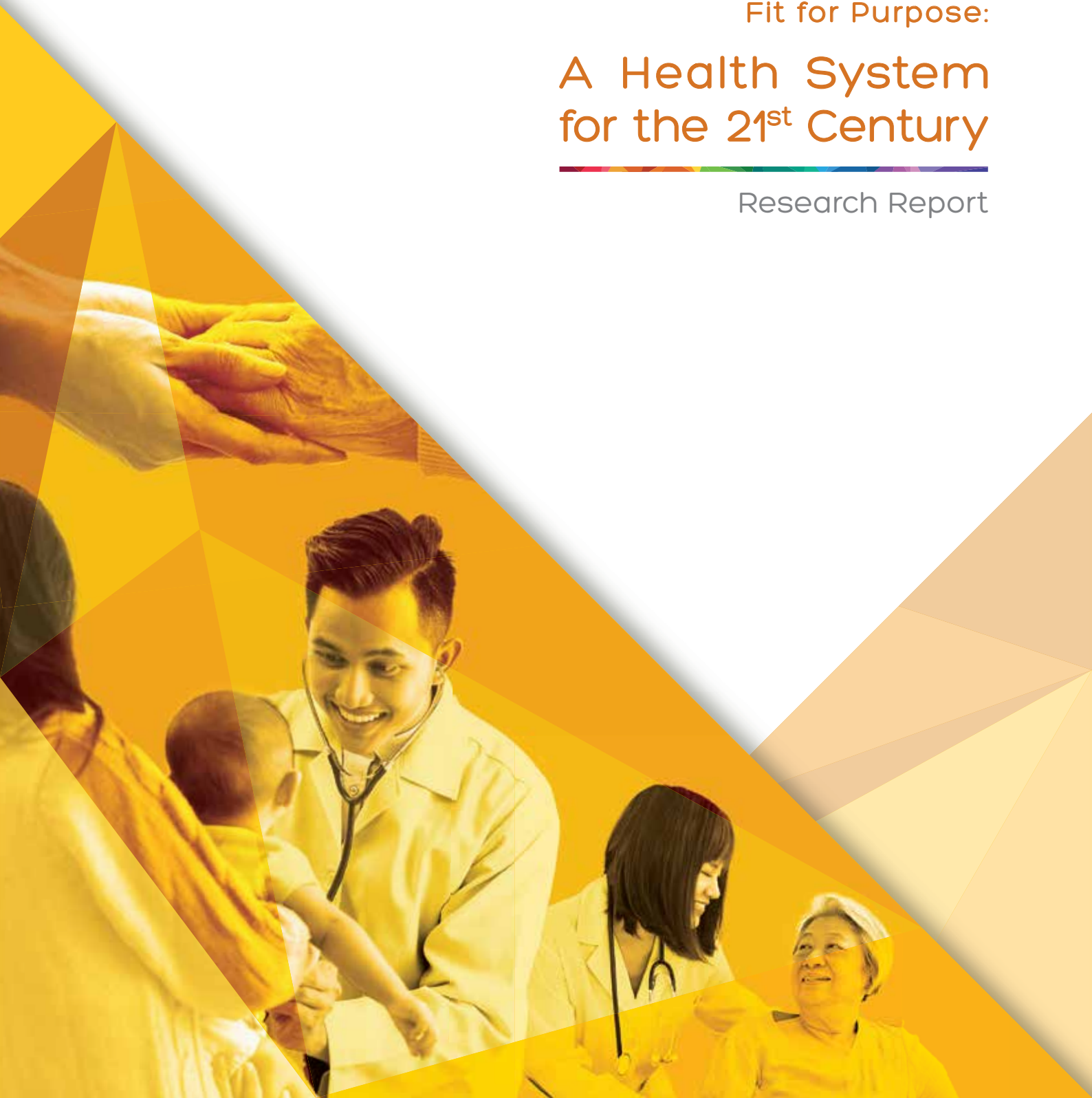




OUR HONG KONG
FOUNDATION
團結香港基金

Fit for Purpose:
A Health System
for the 21st Century

Research Report



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Executive
Summary


WE NEED TO CHANGE TO BE FIT FOR PURPOSE

Conventional health systems which focus on acute hospital-centric care are ill-equipped for the new socioeconomic norms associated with an ageing population. Longer living populations and rising prevalence of preventable conditions which are lifestyle-related and socially determined raise questions about how the health system can operate effectively, efficiently and sustainably in the emerging health landscape. Advances in technology will simultaneously present new opportunities while disrupting current healthcare provision and financing models. Any meaningful attempt to address the fundamental mismatch between services and a shifting demand profile necessitates a whole-of-society and life course approach. This will involve complex interventions and continuous life course care, requiring us to change how health systems are oriented and organised.

WHAT DO WE MEAN BY A “FIT FOR PURPOSE HEALTH SYSTEM”?

- **A system suited to accomplish its intended purpose.**
- **Changing in a changing world:**
 - *Changing context:* an ageing population, and rising prevalence of preventable chronic illness and loss of capacity influenced by the social determinants of health.
 - *Changing needs:* physical, mental, social and spiritual health needs across the life course.
 - *Changing knowledge and technologies:* new medical knowledge, medical technology and information and communications technology disrupting conventional models of care.
- **Changing system: transformations for primary care-led integrated person-centred care.**

Hong Kong's health system is failing to adapt and unless the pace of transformation is quickened it will face insurmountable challenges. Our health system is fragmented with patients falling through the cracks found between our primary and hospital services, long-term and community care, and between our public and private sectors. International best practices such as community care and primary care are relatively underdeveloped locally, despite being key areas to manage future demand. The symptoms of the current malaise are already visible. Extended wait-times and diminished access to services are now commonplace. Nearly half of hospital admissions in the public sector are ambulatory care sensitive conditions which could be dealt with in community settings (The Jockey Club School of Public Health and Primary Care [JCSPHPC], 2017). The unplanned readmission rate within 30 days is 20%. Together, this indicates problems with care quality, inadequate support for discharge care in the community, and lack of integration between health services at different levels of care and between health and social care (JCSPHPC, 2017).



There is a pressing need to move our systems of healthcare towards one emphasising primary care and care nested in the community to better respond to the changing needs of our population and simultaneously relieve pressure on an overburdened public hospital system. The benefits of care in the community abound. Care needs to be continuous and lifelong, joined-up and centred around the needs of our communities of persons. New models of care need to work across different care types, multiple settings, and involve multidisciplinary service provider teams in various provider organisations. Transformation of Hong Kong's health system must focus on reconfiguring how and what we deliver. System-level changes need to be made to tackle fundamental underlying problems with the current health system to be fit for purpose in the 21st century.

Local evidence suggests a HKD8.4 saving on acute care costs for every HKD1 invested into community health

(E. Leung, personal communication, October 20, 2018).

CHANGES NEEDED FOR A CHANGING WORLD

Our study looks into the complex system-wide changes which need to be developed, designed and implemented in Hong Kong. The transformation will build on the gains and achievements we have already accomplished, to better protect and promote health for our future. A major focus of this report is how Hong Kong can prepare and adapt in the face of an ageing population and growing burden of chronic disease to best enable us to live not just long lives, but full, healthy and active and meaningful ones. **We identify a primary care-led integrated person-centred health system as the key to supporting all of our citizens over their life course.**

To achieve this, primary care must be accessible and provide comprehensive care. This must be led by closer coordination in its provision, with hospitals, and with social care for continuity over the life course. Pivoting our system away from its current emphasis on hospital-based, episodic and acute care towards care in the community that is continuous, person-centred and caters for the holistic needs of individuals will transform the delivery and experience of care, and improve health outcomes and efficiency.

None of this can be achieved without system-wide service integration. Essentially, we need to transform how health services are designed and delivered. Delivery of cross-sector and multidisciplinary healthcare is necessary and made possible through horizontal integration within and across services delivered at the same level of care be it health or social care. Vertical integration across different levels of care from primary to hospital care must be managed, as must the role of the private sector, particularly in public-private care collaboration and coordination. Concurrently, adequate community support based on assessed needs will prevent avoidable hospital admissions and facilitate delivery of health improvement initiatives. Well-developed information and communication technologies and infrastructure can facilitate information exchange which further supports integrated services. A visionary health system delivering high-quality care demands a workforce of equal excellence. Clear strategic goals, enabling policies, appropriate funding mechanisms, and enhanced health workforce planning ensures adequate training and education for the right mix and skills of healthcare professionals. Enabling, executing and overseeing all of these steps will require forward-looking and steadfast governance to build on existing foundations facilitating the implementation of integrated person-centred care.

Our Hong Kong Foundation, under the leadership of Professor E.K. Yeoh, Director of the Jockey Club School of Public Health and Primary Care at the Chinese University of Hong Kong, has researched the subject of this report to inform policymakers, stakeholders and the public on the urgent need for change and the critical opportunities to address the challenges facing our health system. This report serves as a resource and a starting point for dialogue and deliberation for the Government, legislators, professionals, practitioners, the community of persons and others engaged in the health system, in the hopes of stimulating discussion and decisions

on the strategies, policies and programmes required. Our report offers insight into local and international best practices and lessons in strengthening health systems to enable it to be fit for purpose. This report also incorporates stakeholder voices through one-on-one interviews and focus groups. We share their ideas and insights about our health system as well as their hopes for what it could be.

MOVING FORWARD: HOW TO TRANSFORM THE SYSTEM TO BE FIT FOR PURPOSE

Our vision of transforming Hong Kong's health system aspires to produce better care experience while positioning Hong Kong as a centre of excellence for health. By leveraging existing advantages, proactively addressing systemic weaknesses and seizing opportunities to develop modern and innovative systems of care, Hong Kong will become fit for purpose to tackle 21st century challenges. We take a health systems perspective when exploring a shift in the health system towards one which delivers integrated person-centred care. This visionary transformation is massive, complex and continuous. Careful development of strategies to achieve the transformation is necessary and must be continuously monitored and evaluated. Our snapshot of the status quo creates a ready baseline for key actions as catalysis for our system forward, and we highlight priorities for immediate action below. Our policy recommendations cover three key areas: 1) enabling person-centred care; 2) achieving primary care-led integrated care; and 3) health governance levers to facilitate the transformation process.

1. ENABLING PERSON-CENTRED CARE – WE NEED TO REORIENT THE HEALTH SYSTEM FOR “THE COMMUNITY OF PERSONS”

1.1 PROMOTING PATIENT AND COMMUNITY EMPOWERMENT, ENGAGEMENT AND COPRODUCTION

Empowering patients and enhancing the role of the community at all levels of service delivery are key to achieving a person-centred system. **Continuous efforts are necessary to move away from disease-focused and physician-centred care to one which is person-centred where patients are facilitated to take ownership over their own health.** Initiatives that enable self-care, peer support, and empowerment of families and communities, within the community need to be in place. The Government should extend patient empowerment programmes to cover not only a comprehensive range of diseases¹, but also go beyond this to focus on persons with holistic needs in their health journey. At the same time, in improving care experience and promoting coproduction in health, the wider community, which has untapped resources to support health promotion and disease prevention, must be involved in the value chain of service planning comprising a spectrum of actions covering planning, designing, commissioning, management, delivery, monitoring and evaluation of services.

¹ For example, the DHCs plan to provide free community-based patient empowerment programmes for patients of specific disease groups including diabetes, hypertension, musculoskeletal disorders, stroke rehabilitation, fracture hip rehabilitation and cardiac rehabilitation.

1.2 POSITIONING THE PATIENT AS THE “INTEGRATOR OF SERVICES” IN A PERSON HEALTH JOURNEY – ENABLE PERSON HEALTH PATHWAYS

Everybody should have access to, and ownership of, their personal health records. **We recommend continuous efforts be directed at developing a “patient portal” as part of the Electronic Health Record Sharing System (eHRSS) that empowers patients to monitor their own health more closely, integrates them into the care process and enables coproduction of health.** The portal should offer various online functions including information to help people remain healthy, appointment booking, and prescription information and requests. At the same time, person-centred care services need to be coordinated across different care settings and service providers. Applications should be developed to enable patients and caregivers to become integrators of their own care. Technology should enable patients to become integrators of their own care where applications should be developed to allow patients to download records from various service providers. Furthermore, telehealth services should be developed and expanded to increase access to services and reduce unnecessary use of accident and emergency services. The remote service will empower people to take charge of their own health. Furthermore, 24-hour triage hotlines should be set up to help people make informed healthcare choices anytime, be it primary care advice, triaging for specific symptoms, nurse calls or management of health provider appointments.

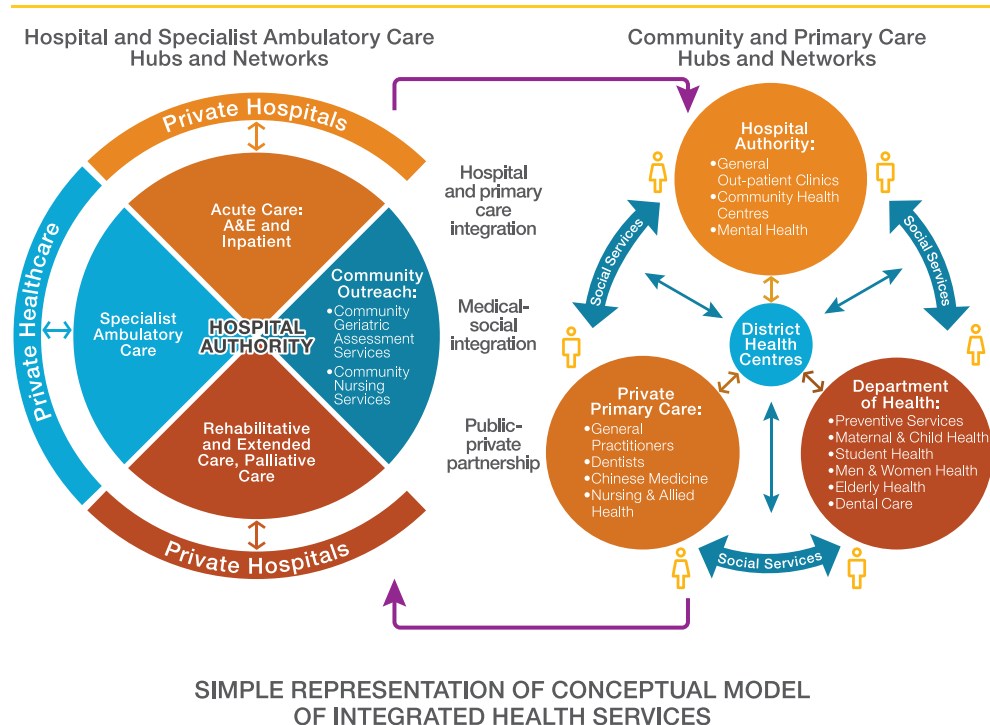
2. ACHIEVING PRIMARY CARE-LED INTEGRATED CARE – WE NEED TO REORGANISE HOW SERVICES ARE DELIVERED TO STRENGTHEN INTEGRATION WITHIN AND BETWEEN PROVIDERS AND SECTORS

2.1 STRENGTHEN HEALTH SERVICES INTEGRATION THROUGH DEVELOPING NEW MODELS OF CARE

Service delivery needs to be reorganised to become more integrated, more accessible and enable patients to stay in the community. This requires altering how services in primary care and hospitals are organised and delivered so they work more effectively together. Public health functions of health protection, health promotion, disease prevention, surveillance and response, and emergency preparedness needs to be integrated with primary and specialist care. In necessitating the provision of holistic person-centred care, integrating services delivery is not limited to overcoming fragmentation and segmentation within the health system, but also involves integration of care between health and social care services. **In recommending the need for system integration, we put forward a conceptual model of integrated health services (Figure).** In this hub and network model for integrated health services, we emphasise the need to consider community and networks, and primary care hubs and networks. Building on the existing District Health Centre (DHC) model currently piloted in the Kwai Tsing District, the community and primary care hubs offer preventive, curative and rehabilitative care from multidisciplinary teams and connect people to appropriate services. They work to make best use of available resources and ensure high-quality care by building links between stakeholders. These relationships (between stakeholders, public and private service providers, and medical and social sectors) will be enabled through networks. These will also link providers of specialist and hospital care, both with each other and with primary care providers. This will also foster professional integration between primary care doctors, allied health professionals, social sector


and non-governmental organisation (NGO) workers, and help forge continuity of care between medical and community services. We have identified the following key mechanisms contributing to the design and ultimate delivery of integrated care:

- (i) **Designing care across the life course** such that care pathways are tailored for the holistic physical, social and spiritual needs of individuals.
- (ii) **Organising providers and settings** such that coordination facilitates seamless transitions throughout the care pathway.
- (iii) **Managerial processes must be in place** and executed through collaboration with different sectors to address wider determinants of health and ensure necessary resources are available. Management of resources invested is critical for efficiency and effectiveness. Mechanisms for monitoring, evaluation, review and renewal of current service models is crucial for sustainability.
- (iv) **Clinical governance** needs to be strengthened to monitor and evaluate how care is being coordinated to meet holistic needs of patients. Mechanisms enabling well-planned service and care pathways should be in place to facilitate the delivery of a continuum of care across settings and provider transitions.



2.2 ACCELERATE THE PACE OF PRIMARY CARE DEVELOPMENT IN HONG KONG

Primary care is a vital component of our current health system that needs to be strengthened substantially. It needs to be comprehensive to address a majority of personal holistic needs, coordinated across different care providers and service settings for smooth care transitions along the patient care pathway, continuous to cater for needs across the life course and accessible for patients to initiate necessary interactions with health service providers (Donaldson, Yordy, & Vanselow, 1994). In moving forward, we must create, train and continually invest in the right workforce with the right skills for primary care delivery and devote attention to the appropriate



mechanisms and incentives (continuing education, specialization programmes and training, and growth opportunities) that motivate and empower health professionals. We highlight the **urgent need to build up a primary care workforce** that consists of a different discipline of health professions and a spectrum of primary care providers which could include: family doctors; generalists trained to deal with multiple chronic illnesses and ageing-related complications such as decreasing reserves and capacity manifesting as fragility; primary care doctors trained to provide long-term care, care for the disabled, and palliative care; and “specialists” who provide primary care. Concurrently, we recommend the Government to **adopt the family and primary care doctor model to further promote and enable "patient affiliation with a primary care doctor"**. While individuals would have the option of changing their primary care doctor as necessary, the transition should be documented. This will contribute to promoting access to and continuity in primary care where potentially the same doctor will be able to consult on different health problems throughout a patient's life course.

2.3 ENABLE INTEGRATION BY FORMALISING LINKS BETWEEN SERVICE PROVIDERS AND HEALTHCARE PROFESSIONALS

We advocate for the need to review a wide range of mechanisms to foster stronger connection between hospitals, sub-acute care providers, and primary care providers. Such mechanisms include the design of care pathways, clinical protocols, care plans, and referral and discharge protocols. Of equal importance are reviews of provider organisations, care settings, information flow and patient engagement. Integration between hospitals and the community, especially in a primary care context, can be strengthened and enabled by formal mechanisms encouraging communication and ongoing dialogue between providers. Acknowledging that current mechanisms are focused on clinical aspects of patients' wellbeing, due consideration should be given to the development of specific tools which assess the physical, mental, social and spiritual needs of all patients to ensure the delivery of holistic person-centred care.

2.4 CONTINUOUS ENHANCEMENTS OF MEDICAL AND SOCIAL CARE INTEGRATION

To cater for patients' holistic needs and for people with multiple chronic conditions needing joined up services, there is a need to make sure that apart from adequate medical and nursing support for desirable health outcomes, adequate funding, resources and infrastructure are available for long-term care, rehabilitation and social support. **To further promote the integration between health and social care, we recommend the Government study funding needs and shared funding mechanisms where health and social care authorities enter pooled budget arrangements and agree on integrated spending plans.**

2.5 RE-EVALUATION OF THE COMPLEMENTARY ROLE OF THE PRIVATE SECTOR

The role of the private sector in primary care, health protection, health promotion, chronic disease management, long-term care and care for defined population groups should be studied and redefined to enable a more strategic role to emerge.

3. HEALTH GOVERNANCE IN PRIMARY CARE-LED INTEGRATED PERSON-CENTRED CARE – WE NEED TO PUT IN PLACE GOVERNANCE LEVERS AND STRUCTURES TO SUPPORT AND ENABLE THE DEVELOPMENT OF NEW SERVICE MODELS

Stewardship and governance of health systems is the critical function which alone, has the capacity to bring about interrelated and complex changes in health service delivery to integrate healthcare for the community of persons. There is a need to capitalize on a range of governance levers and existing programmes to enable progress towards a visionary primary care-led integrated person-centred health system. We present the following key areas for consideration:

3.1 LASTING CHANGE REQUIRES STRATEGIC VISION AND THE CAPACITY TO STEER THE HEALTH SYSTEM

We need to ensure that health policies take a primary care-led, integrated, person-centred system as their focus, and plan for all relevant sectors of the health system. The health system's workforce, information technology and health financing will all take their cue from this starting point and will provide the levers for change. The vision for change needs to be feasible and tap into shared values to inspire change throughout the system (World Health Organization Regional Office for Europe [WHO/Europe], 2016d). Policies need to be in place to support patients in co-designing the care they receive.

3.2 POLICYMAKING ENABLED BY A DEDICATED STEERING GROUP ON INTEGRATED CARE

We recommend the Government to establish a steering group to oversee the complex process of system-wide integration. Health system changes are complex and require long-term oversight, not only from policymakers but also by a panel of experts who can help identifying areas and priorities for change, identifying knowledge gaps for research and study and develop strategies to implement changes.

3.3 STRATEGIC AND NEEDS-BASED PLANNING AND RESOURCE ALLOCATION

Resources should be allocated where they are required on the basis of local demand while ensuring services are responsive to local needs and population-based. Health and service needs assessments should be conducted based on a variety of sources. **Needs-based planning should be practiced across the health system as a whole and applied to DHCs to ensure district needs are identified and met.** The Government may need to review strategic purchasing, commissioning mechanisms and appropriate resource allocation for primary, community and hospital inpatient care to encourage greater care efficiency and effectiveness in health services delivery.

3.4 DEVELOP MECHANISMS TO GENERATE INTELLIGENCE AND LOCATE EVIDENCE, AND TO CONDUCT RESEARCH TO SUPPORT PLANNING

We need to invest in collecting the right data to inform the intelligence needed for strategic planning and purchasing and policymaking, including establishing and linking existing data infrastructures. **The Government should consider earmarking research funds to commission research on studying how health system integration should work in Hong Kong with reference to a framework guided by a vision and systemic in its construct.** It should also put in place robust systems to support health technology assessment to allow us to make the best use of technologies within our health system.

3.5 21ST CENTURY HEALTH SYSTEMS REQUIRE 21ST CENTURY INFORMATION ARCHITECTURE

We need to invest in systems to monitor the performance of providers and to develop tools for service quality assurance. Mechanisms ensuring information continuity between providers and across sectors, particularly between public, private and NGO providers, will help guide patients in choosing the right resources available to them. **We also need to capitalise on opportunities afforded by big data and artificial intelligence (AI).** This requires further development of information networks and platforms such as a Big Data Analytics Platform, the electronic health record system and the development of a “Health ID” representing the collation of health data over a life course in the person's health journey. The use of complex algorithms will streamline predictions, diagnosis and assess risk so suitable interventions are delivered real-time or at least in a timely manner. We also need to ensure the security of patient data.

3.6 ALIGN SYSTEM INCENTIVES TO PROMOTE INTEGRATION

Strategically purchasing services, allocating resources appropriately and utilising purchasing and payment mechanisms can encourage coordination and integration between service providers. **We recommend scaling up vouchers and public-private partnerships to target disease prevention and chronic disease management.** This will also facilitate greater cooperation between the public and private sectors while enlisting the private sector to meet our collective aims. Other mechanisms to consider include personal health budgets that can integrate services around individual patients and promote greater personalisation and wellbeing (Exworthy, Powell, & Glasby, 2017).

3.7 REVIEW OUR HEALTH GOVERNANCE STRUCTURE

The Government may also need to consider the current governance structure, and review the roles and responsibilities of the two major public sector organisations under its purview—the Department of Health and the Hospital Authority. The overall leadership and stewardship role in health governance is a function of the Food and Health Bureau. Population and public health functions and responsibilities reside in the Department of Health, that also provides direct health services which are mainly preventive in type. The Hospital Authority is the public provider of primary, secondary and tertiary ambulatory out-patient and in-patient hospital care. Services arising from health protection and disease prevention also need to integrate with primary and specialist services. It is not apparent how this is currently done and whose responsibility it is.

In addition, we recommend a robust accountability system that will monitor the performance and direct improvements of the system and services providers to ensure needed resources are available and are correctly deployed.



Chapter 1

Global Context - Why we need change

1.1 IS HONG KONG'S HEALTH SYSTEM "FIT FOR PURPOSE"?

Hong Kong's health system stands out within the Asia Pacific region. It has a strong commitment to providing healthcare regardless of means, excellent health outcomes achieved for a comparatively small percentage of Gross Domestic Product (GDP), and a world-class public hospital system. **Hong Kong's health system ranked as the most efficient in the world, awarded an efficiency rating of 87.3 out of a possible 100 (Miller & Lu, 2018), according to the latest Bloomberg Healthcare Efficiency Index.** Average life expectancy for residents is 84.3 years (Census and Statistics Department of the Hong Kong SAR [C&SD], 2017b) compared to a total health expenditure of 6.1 percent of GDP and average absolute health expenditure of HKD20,243 per person (Food and Health Bureau of the Hong Kong SAR [FHB], 2018d). Hong Kong's citizens enjoy enviable health outcomes for their investment. Despite these accolades, our health system is not without challenges. Hong Kong's citizens will increasingly require continuous, life-long care as our population ages rapidly and the prevalence of chronic illnesses rises.

Hong Kong's health system ranks as one of the most efficient in the world

The capacity of our health system to handle a growing population moving closer to the end-of-life (EOL) is in question (C&SD, 2017b). **Public resources are not organised to deal with the growing urgency to cater for those living with multiple chronic conditions.** Current resources are disproportionately invested in acute episodic secondary and tertiary care that is often delivered in hospital settings. Public primary care is constrained and inadequate care is delivered in the community. Of particular concern is the high out-of-pocket (OOP) health spending at 34.6 percent of total health expenditure in 2015/2016 (FHB, 2018d). Since the incidence of improvement and financial catastrophe has been suggested to fall to negligible levels only when direct payments reduce to appropriately 15 to 20 percent of total health spending (WHO, 2010), the high percentage of OOP spending in Hong Kong is indicative of a potentially catastrophic impact of ill health on family incomes.

The financial implications from the catastrophic effects of ill health on family incomes is very real (WHO, 2010). People are living longer, but many are spending their "golden years" suffering in a cycle of inadequate care and hospital readmissions in between long-term care facilities. This cycle is a huge drain on resources, leading to stressful repeat hospitalisations and ultimately elderly patients passing away in unfamiliar hospital settings rather than the comfort of their homes. In this context, service-demand gaps will continue to widen, leading to overloaded services, long waits for non-emergency procedures and diminished accessibility. If the fundamental and long-term needs of our elderly, chronically ill and disabled persons are not adequately met, challenges in access, efficiency, outcomes and cost will compound in scope.

There remains time to turn things around for the better. Ageing is not a burden but a natural process and can be managed to enable a happy and healthy later life. Active ageing necessitates an adjustment of our health and socioeconomic systems. Of note, many chronic diseases are preventable. Four common and largely controllable behavioural risk factors (tobacco, alcohol, physical activity and diet) are associated with chronic non-communicable diseases (NCDs) (WHO, 2002). It is estimated that at least 80 percent of all heart diseases, stroke, type 2 diabetes and more than 40 percent of cancers could be prevented by managing these risk factors (WHO, 2005). The preventable nature of chronic diseases necessitates the use of a life course approach for health protection, disease prevention and health maintenance to optimise the wellbeing of individuals for as long as possible.

Of equal importance is recognition of the determinants of health. Social, economic and environmental factors as well as individual circumstances that affect access to health services are critical determinants to health, wellbeing and functional capacity. All of these determinants must be leveraged to promote good health (WHO, 2015f). It therefore makes sense to engage all stakeholders and the community in the provision and process of healthcare and to place the community at the heart of shaping health systems.

As our population profile, community needs and expectations evolve, reimagining our health system and how it delivers care is vital to maintain a fiscally sustainable system that can support wellbeing for all. **Hong Kong faces the urgent task to reorient and transform its health system to make it fit for purpose in the 21st century.** We believe policies for transforming the health system will enable the society to accrue the many benefits of a society which enjoys good quality of late life while ageing well.

1.2 OUR REPORT

This report investigates how health systems should be organised in the 21st century to fit an emerging health landscape of uncertain financial sustainability shaped by demographic, epidemiologic and technological disruptions. The report identifies mechanisms for transforming our health system with an emphasis on health service delivery to move towards a model of primary care-led integrated person-centred care. We will identify major issues with our current system as well as policy levers for change in presenting a vision of a 21st century health system tailored for our health ecosystem. The report highlights key drivers for review and priorities for change culled from best practices demonstrated in contemporary overseas health systems elsewhere to meet the demands of our ageing population.

METHODS

Our Hong Kong Foundation (OHKF) together with Professor Yeoh Eng-Kiong (Director of the JCSPHPC at the Chinese University of Hong Kong) and his team analysed databases, scoured journals and reached out to stakeholders most relevant to our vision of health system transformation. In particular, we studied how health service delivery can be reconfigured toward a primary care-led integrated person-centred system and examined how functions in health system governance can provide leverage for transformations.

Key stakeholder interviews

Our analysis is complemented by a series of in-person interviews with key stakeholders (n=37) representing leading institutions (n=18) in Hong Kong's healthcare, social care and policymaking fields, across the public, private and not-for-profit sectors. The interviews delved deep into our core concerns: whether Hong Kong's health system is fit for purpose for the 21st century, its current dilemmas and actions which should be taken to address these issues. End users of the health system including patients with disabilities, various chronic conditions and their caregivers (n=15) were invited to take part in focus group sessions. Snowball sampling was utilised by having participants enlist colleagues and newly identified key stakeholders to provide views (Berg, 2004). The feedback informs challenges to the health system today and ongoing efforts to tackle the challenges and steer the health system closer to a fit-for-purpose vision for the 21st century.

Literature review

We collected data on Hong Kong's health system and the health systems of selected international comparators through intensive research of academic publications and documents provided by relevant organisations, governmental bodies, regulators as well as publicly available data.

We expect the recommendations based on this research will prove informative for policy formulation and form the foundation for the complex transition to a primary care-led integrated person-centred health system with service provision spanning across the continuum of care.

1.3 CONVENTIONAL HEALTH SYSTEMS ARE NO LONGER FIT FOR PURPOSE

“

The health of older people is not keeping up with increasing longevity; marked health inequities are apparent in the health status of older people... long-term care models are both inadequate and unsustainable; and physical and social environments present multiple barriers and disincentives to both health and participation. - *WHO World Report on Ageing and Health, 2015*

Source: WHO, 2015f

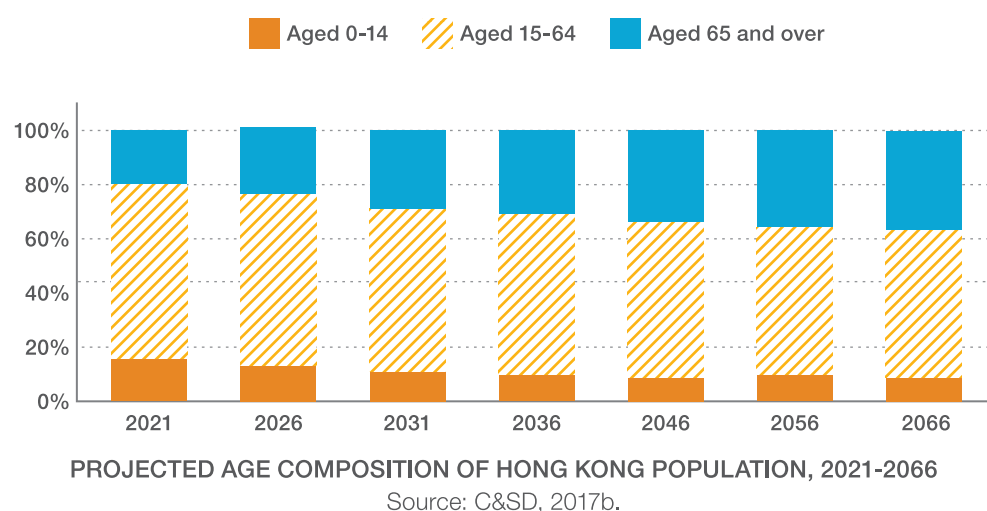
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Constrained by limited financial resources and manpower, governments worldwide face the daunting task of anticipating the economic and social implications of ageing and adapting ways to deliver care. Current health services are effective in addressing acute conditions and communicable diseases. **This framework to treat episodic illnesses based on a biomedical approach served past requirements but no longer aligns with the health and social needs of ageing populations.** Current healthcare services are falling behind when dealing with preventable NCDs and multiple complex chronic conditions which require greater emphasis on maintaining intrinsic and functional capacity.

Older people represent a rapidly growing demographic which can expect to live healthy and engaged lives continuously as full participants and contributors to society. **The proportion of the global population aged 60 years or above rose from 9.9 percent to 12.3 percent between 2000 and 2015 and is projected to reach 16.5 percent by 2030 (United Nations, 2015b).** At the same time, population ageing and growth in the proportion considered as the “oldest-old” (85-years-old and above) exerts pressure on health systems. Demand for care increases as does services and technologies to prevent and manage NCDs and chronic conditions related to lifestyle and old age that is manifested as decreasing intrinsic capacity and geriatric syndromes (WHO, 2015f).

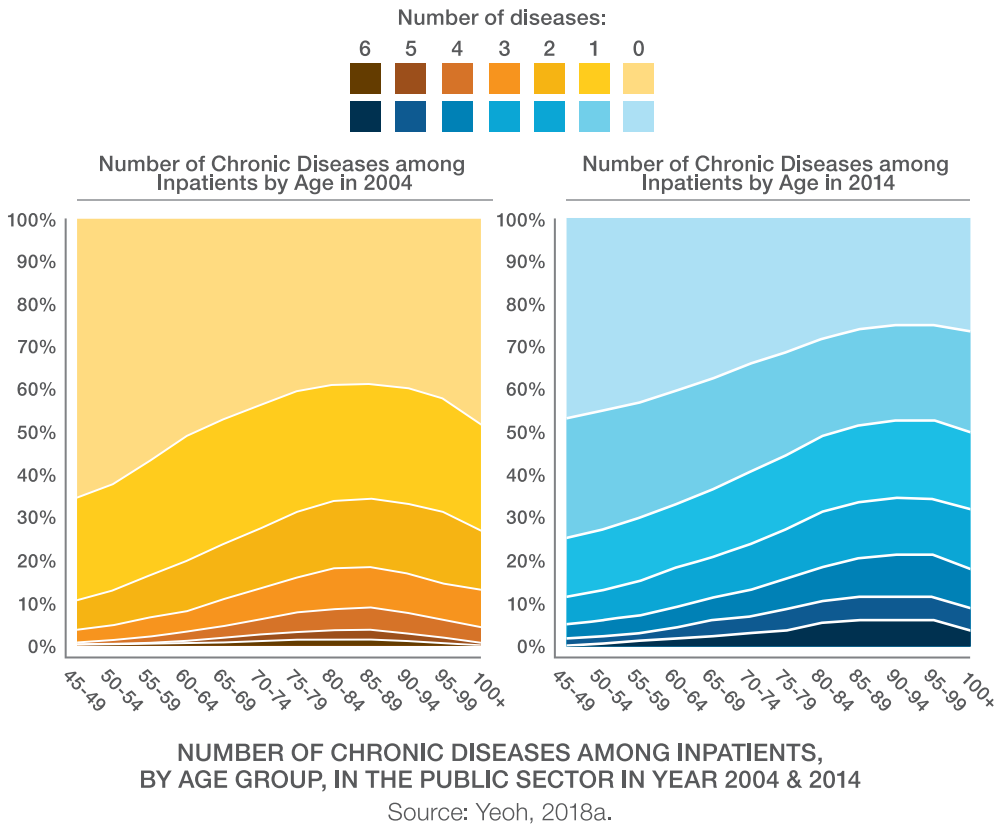
Hong Kong is also experiencing this significant demographic transition due to its low fertility rate, long life expectancy and resulting population age structure. Hong Kong's total fertility rate has consistently remained at a low level over the past two decades and has been projected to decrease further by 3.2 percent between 2016 and 2066 (C&SD, 2017b). Hong Kong's increasing life expectancy paired with a shrinking working-age population will result in a near-threefold increase in the elderly dependency ratio. It took five to six working age Hong Kongers to support an elderly person in 2016 and by 2066, the same share to "support" a single elderly resident will be divided by two working age citizens (C&SD, 2017b) (**Figure 1.1**). This societal shift highlights the importance of designing an enabling and supportive care systems.

FIGURE 1.1



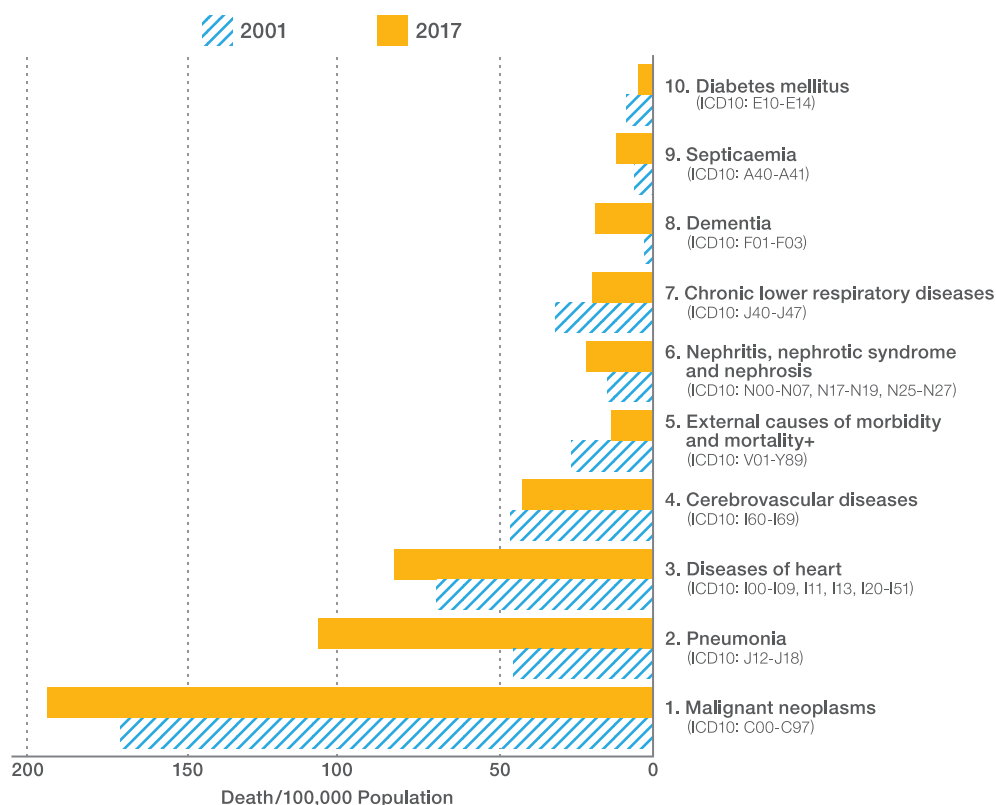
People are living longer but not necessarily better. Greater longevity is associated with an increase in chronic illnesses which requires continuous care and “ongoing management over a period of years or decades” (Pruitt et al., 2002). Increasing chronic illnesses, underinvestment in primary prevention, health promotion and care delivery mean longer lifespans are increasingly met with multimorbidity, namely the coexistence of several chronic conditions and susceptibility to disease and disability (WHO, 2015f). The likelihood of experiencing multimorbidity increases with age, in turn increase with health service utilisation and costs (WHO, 2015f). Worryingly, later population cohorts in Hong Kong have been shown to experience an earlier onset of chronic illnesses (The Jockey Club School of Public Health and Primary Care [JCSPHPC], 2017). However, many health systems including Hong Kong's are not tooled to provide care for the complex needs of patients with multimorbidity (**Figure 1.2**).

FIGURE 1.2



The increasing proportion of patients with chronic conditions presents serious challenges in terms of increased volume and how best to provide services to patients requiring different levels of care (Hospital Authority [HA], 2017c). **The percentage of persons who have chronic health conditions increases by age group.** According to the 2016/2017 Thematic Household Survey, 26 percent, 44.5 percent and 74.3 percent of all persons aged 45-54 years, 55-64 years and ≥65 years, respectively, had chronic health conditions as diagnosed by Western medicine practitioners (C&SD, 2017c). Furthermore, Hong Kong’s Centre for Health Protection (CHP) recorded predominately chronic conditions, including malignant neoplasms (cancer), diseases of the heart, cerebrovascular diseases, chronic respiratory diseases, dementia and diabetes, as the leading causes of death for persons aged 65 or above (CHP, 2017) (**Figure 1.3**).

FIGURE 1.3

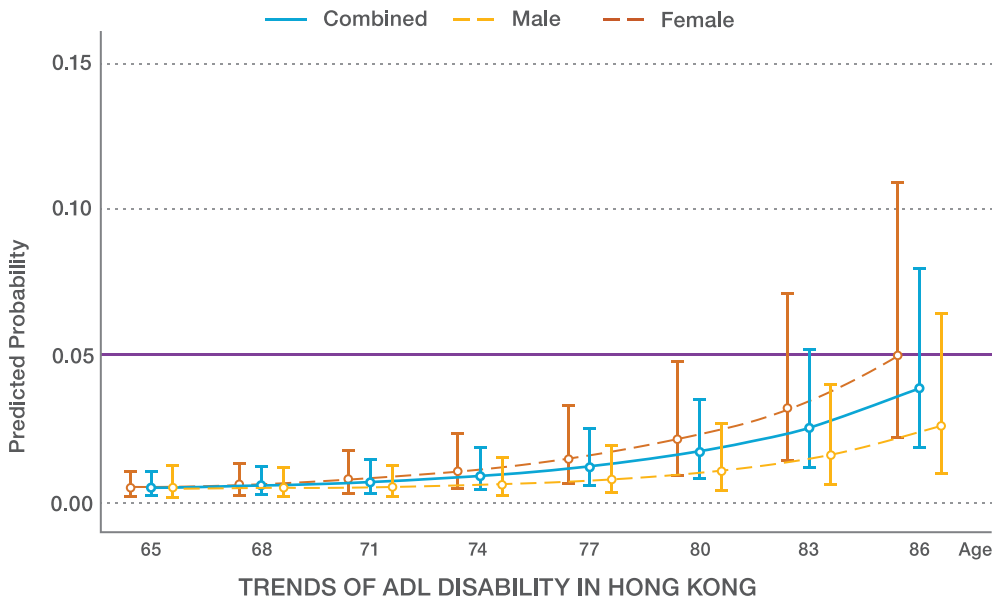


LEADING CAUSES OF DEATH IN HONG KONG, 2001 & 2017

Source: CHP, 2018a.

The number of patients seeking treatment for diabetes has been projected by HA to increase by 53 percent from 410,000 in 2014 to 627,000 in 2024 while the number of hypertensive patients will increase by 43 percent from 1,070,000 to 1,532,000 during the same period (HA, 2017b). Growth rates in coronary heart disease and stroke cases have been estimated to be 42 percent (from 185,000 to 264,000) and 47 percent (from 87,000 to 129,000) respectively (HA, 2017c). Alongside chronic illnesses, disabilities also increase with age. A study on local community-based older Chinese adults pointed to an increasing probability of disability associated with activities of daily living (ADL), with age being a particularly prominent indicator in the older age group (Yu et al., 2016) (Figure 1.4). This highlights the need for our health system and society to become more inclusive with support for access and opportunities for persons living not just with chronic illnesses but also decreased intrinsic capacity, disabilities and functional impairments.

FIGURE 1.4



Source: Yu et al., 2016.

- Notes: (1) ADL disability: unable to perform at least one of seven tasks independently, including bathing, dressing, toileting, transferring from a bed to a chair, feeding, grooming, and walking across a small room.
 (2) The model has adjusted for period, cohort, marital status, educational level, employment status, type of housing, physical exercise, smoking, alcohol intake, BMI, number of prescribed medications and self-rated health; ADL, activities of daily living; BMI, body mass index.

New medical, information and communication technologies are being developed to treat diseases, improve access, quality of health services, and health (Tello & Barbazza, 2015). **Technological innovation as a driver of healthcare expenditure is complex and dynamic** (Sorenson, Drummond, & Bhuiyan Khan, 2013). Substitute technologies may facilitate reduction in spending. However, complex and sophisticated technologies such as cancer diagnostics and management have increased costs alongside expanded indications for treatment and increased capacity. Increased use of personnel, supplies and training for new therapies also result in increased healthcare spending. It is in this context that therapeutic benefit, value for money, and improved quality of care and life must be considered. Against this backdrop of demographic, lifestyle, chronic disease and technological changes, top quality healthcare may become increasingly unsustainable for the Government and individuals. Hong Kong's total health expenditure as a percent of GDP has increased from 3.6 percent to 6.1 percent over the last 25 years (FHB, 2018d), and is projected to rise to 9.2 percent by 2033 (FHB, 2008a). There is apprehension over medical inflation accounting for a rising share of total healthcare costs while the unchecked growth of public healthcare spending may ultimately go beyond what the current tax-based system can afford with its relatively narrow base. Hence, the current health system is not only mismatched to near-future population needs but may be financially unsustainable within a few decades.

Macroeconomics aside, day-to-day challenges over accessibility, affordability and equity remain. The greatest barriers to healthcare access faced by older people living in rural areas in low and middle-income countries are transportation and costs, according to the World Health Report (WHO, 2015f). Affordability remains a significant barrier to effective health system utilisation, particularly when elderly or their families must make OOP payments. **In Hong Kong, inequity is most apparent in access to outpatient services** (G. M. Leung & Bacon-Shone, 2006). Long wait times for public specialist outpatient services and Accident and Emergency (A&E) services are demonstrative of the strain placed on the public healthcare system.

Misuse and inappropriate use of health services exacerbate this problem. According to a 2017 study, Hong Kong had the lowest rate of regular source of care (60 percent) when compared to 11 developed countries, and the longest waiting time for specialists and poorest coordination between regular doctors (S.Y. Wong et al., 2017). Long queues disproportionately impact lower income patients who face the conundrum of turning to unaffordable private care or are left living with diminished access (Yam, Liu, Huang, Yeoh, & Griffiths, 2011).

Language could be considered another barrier for public health system access for ethnic minorities which constitute 8 percent of Hong Kong's population as of 2016 (C&SD, 2017a). The poorest poor, rural district dwellers and those suffering from disabilities also experience difficulties in accessing services which are technically available to them (S. Y. Wong et al., 2010). These collective access issues demand system-level interventions, including better medical-social collaboration and service delivery. Due consideration for cultural nuances should be included in any redesign with special attention paid to the social determinants of health which WHO defines as, "the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life" (WHO, 2015c).

Hong Kong's health system must be retooled to place people and communities rather than disease at the core of decision making and processes. This is best achieved by enabling coproduction of care with patients, caregivers and the community. Integrating health interventions across the life course will help migrate care out of acute settings and into the community. Renewed focus on addressing preventable chronic diseases through targeting controllable lifestyle and social factors will reduce risks which determine morbidity. Conventional care models are fragmented, fundamentally disease-based, focused on episodic treatment and are hospital-centric. Coordination and continuity between primary, community-based and hospital-based specialist services is required to provide holistic people-centred care over a life course and address the needs of ageing populations. To achieve these ambitious changes we need to implement our vision starting from a whole-system framework.

1.4 A HEALTH SYSTEM FOR THE 21ST CENTURY

“

Unless a people-centred and integrated health services approach is adopted, healthcare will become increasingly fragmented, inefficient and unsustainable. - *WHO global strategy on people-centred and integrated health services: Interim Report*
Source: WHO, 2015e.

”

Developing a foundation for primary care-led integrated person-centred care is the first step to a life course approach to healthy ageing and healthcare (WHO, 2018b). A focus on primary and preventive care while shifting care in to the community and coproducing health with patients can optimise care experience. Gaps and design flaws including fragmentation and segmentation of care must be identified and remedied. Confronting fundamental issues with an aim to reduce avoidable morbidity and mortality will further improve health outcomes. Moving forward to address the aforementioned challenges, we propose a new foundation to erect a system which is fit for purpose and sustainable for the 21st century.

HEALTH IN ALL POLICIES

WHO promotes a “Health in All Policies” (HiAP) approach to public policies, which “systematically takes into account the health implications of decisions, seeks synergies, and avoids harmful health impacts in order to improve population health and health equity.”

The development of HiAP is based on the principle that health challenges such as noncommunicable disease, rising costs, and health inequity arise from complex causes and the social determinants of health.

Effectively promoting health and achieving an equitable, sustainable health system requires policies that address the social determinants of health and work across sectors, for example, education, transportation, food and labor. Conflicts and unintended impacts may arise, and it is essential that policymakers open channels for dialogue.

Our policy vision for Hong Kong must incorporate health across sectors and take an upstream perspective that encompasses the social, environmental, educational, economic and cultural origins of health.

Sources: WHO, 2015a; 2015d.

CAPITALISING OPPORTUNITIES FOR PUBLIC HEALTH ACTION ACROSS THE LIFE COURSE AND THEIR IMPLICATIONS FOR THE ORGANISATION OF HEALTH SYSTEMS

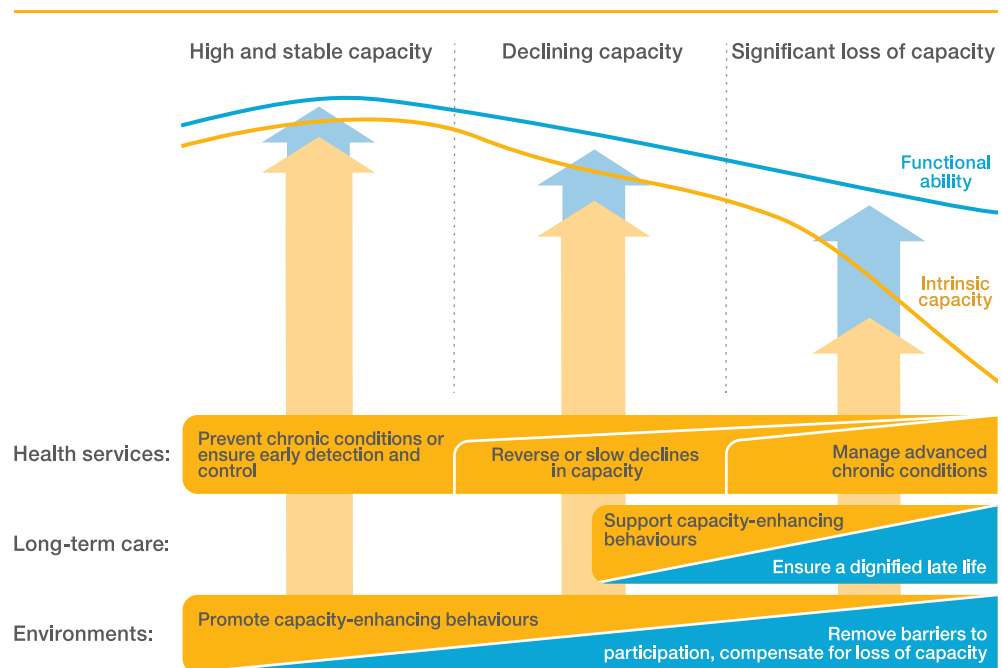
Understanding how individuals experience varying levels of physical, mental, social and spiritual health highlights different windows of opportunity for healthcare. Rather than a burden, older people are a valued asset. They are a growing portion of our society and our health system should be reoriented to enable healthy ageing. It is necessary to maintain their intrinsic capacity and functional ability while preparing for their needs and support them to lead full and active lives within the community. The life course approach to healthy ageing has been defined by the WHO as, “the process of developing and maintaining the functional ability that enables wellbeing in older age” (WHO, 2015f). The life course approach calls for adaptive health systems, appropriately utilising resources that focus on disease prevention and treatment with due consideration for the chronically ill.

Focus should be placed on building and maintaining capacity for as long as possible through prevention and early detection of chronic conditions and risk factors among people with high and stable levels of intrinsic capacity as referenced in **Figure 1.5**. Strategies include promotion of healthy behaviours and regular physical examinations.

For people with declining capacity, a different approach which focuses on minimising the impacts of chronic conditions to reverse or slow decline is necessary. Providing accessible environments such as wheelchair-friendly infrastructure can help those with chronic conditions retain mastery of daily tasks and continue to function socially.

For people who have or are at a high risk of significant loss in capacity, the focus should be on long-term management of chronic conditions and healthy living in addition to medical treatment. Continuous promotion of healthy living is important to manage existing conditions while preventing further risks. The aim is to provide the necessary social and physical support and environments for them to live with dignity and as much independence as possible (WHO, 2015f). **To make it truly fit for purpose, our health system must have the capacity to deliver timely and appropriate health interventions which cater for a variety of trajectories throughout an entire life course.**

FIGURE 1.5



**A PUBLIC-HEALTH FRAMEWORK FOR HEALTHY AGEING:
OPPORTUNITIES FOR PUBLIC HEALTH ACTION ACROSS THE LIFE COURSE**

Source: WHO, 2015f.

Box 1.2

DEFINING PRIMARY CARE

Primary Care: provision of accessible first contact care that is comprehensive, continuing, coordinated and person-centred in the context of family and community.

“Primary care contributes to the health of the population and covers a wide range of services which includes the delivery and provision of

- health promotion;
- prevention of acute and chronic diseases;
- health risk assessment and disease identification;
- treatment and care for acute and chronic diseases;
- self-management support; and
- rehabilitative, supportive and palliative care for disability or end-stage diseases.”

Source: Department of Health of the Hong Kong SAR [DH], 2018a.

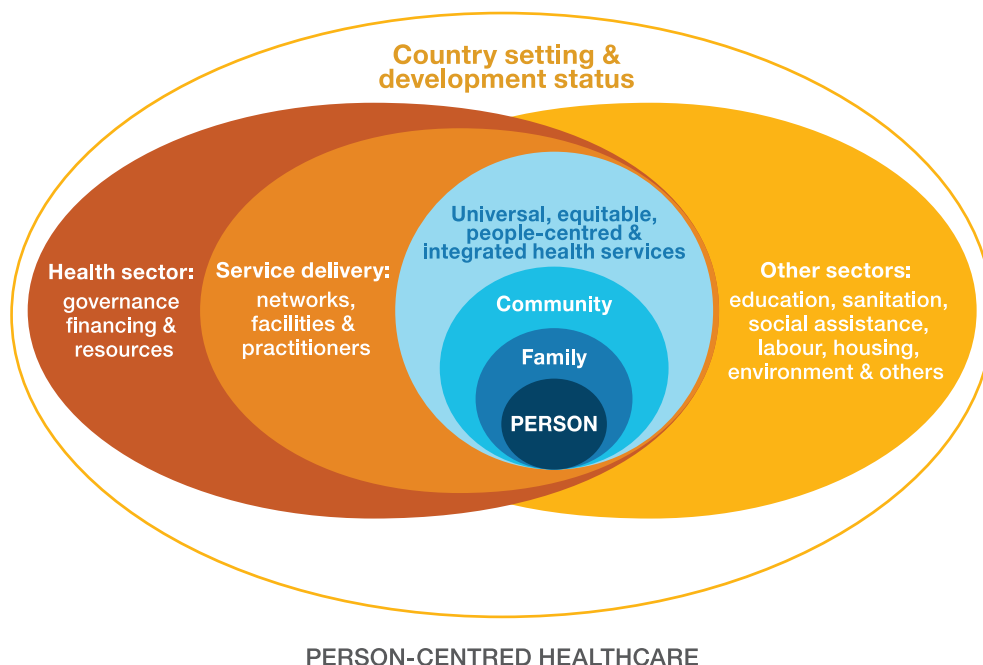
TOWARDS PRIMARY CARE-LED INTEGRATED PERSON-CENTRED CARE

A health system which is primary care-led, integrated and person-centred best ensures that healthcare is coordinated around the needs of a diverse population. Placing people at the centre of care addresses patients' rights and preferences and cements primary care as the bedrock of the health system.

Without high-quality, evidence-based primary care any foundation of a health system is weak. Patients may forego needed treatment or receive inadequate and inappropriate services. Prevention and health promotion are neglected, increasing the impact of lifestyle factors and the negative health effects of social factors such as low socioeconomic status (Lee et al., 2015). Lacking effective and early accessible primary care, total healthcare costs rise while outcomes and patient experiences suffer (FHB, 2010b; Liu & Yeung, 2013; R.Y. Chung et al., 2016; Stange, 2009; Starfield, Shi & Macinko, 2005).

Integrated person-centred health services root people and communities rather than diseases at the centre of health systems. Evidence shows that health systems oriented around the needs of people and communities are more effective, cost less, improve health literacy and patient engagement, and are better prepared to respond to health crises. The new focus empowers individuals to take an active role in their own health instead of merely being passive recipients of services (WHO, 2015e). By positioning the patient and the community as co-producers of health, a person-centred approach empowers people to take control of their own health in the context of their community, express their needs to providers and caregivers that improves both outcomes and patient satisfaction (Figure 1.6).

FIGURE 1.6



Source: WHO, 2015e.

WHAT ARE INTEGRATED PEOPLE-CENTRED HEALTH SERVICES?

WHO describes integrated people-centred health services as “putting people and communities, not diseases, at the centre of health systems, and empowering people to take charge of their own health rather than being passive recipients of services.”

“People-centred health services is an approach to care that consciously adopts the perspectives of individuals, families and communities, and sees them as participants as well as beneficiaries of trusted health systems that respond to their needs and preferences in humane and holistic ways. People-centred care requires people to have the education and support they need to make decisions and participate in their own care. It is organised around the health needs and expectations of people rather than diseases.”

Source: WHO, 2018b.

Integration combats fragmentation, poor communication and misaligned payment structures which remain major challenges afflicting most health systems (WHO, 2015e). Care integration connects patients, providers and communities for continuity of care. Horizontal integration between entities which deliver services on the same level of care can be distinguished from vertical integration of entities delivering care at primary, secondary and tertiary levels within the same or between providers (WHO Regional Office for Europe [WHO/Europe], 2016c). Temporal integration is the continuity of care in a patient’s health trajectory over a life course. These dimensions of integration go beyond working relations and can take the form of networks, federations, mergers, consolidation, co-location or through virtual spaces created by provider networks and alliances (WHO/Europe, 2016c). Integration also encompasses functional integration (e.g. human resources, information technology, strategic planning, quality improvement, and financing) as well as physician, clinical and patient care integrations (WHO/Europe, 2016c). Active collaboration and communication among providers are key characteristics in this type of health system. An inter-professional healthcare team is comprised of a diverse group of members depending on the patients’ needs (WHO, 2015e). This integration of health services ensures a continuum of health promotion, disease prevention, diagnosis, treatment, disease management, rehabilitation and palliative care services at different levels and sites of healthcare within the system and based on their changing needs throughout their life course (WHO, 2018b). Each meshing holds promise for managing the complex care needs of patients with chronic conditions as well as meeting increasing patient expectations for personalised and responsive care (WHO/Europe, 2016c).

Moving towards a primary care-led integrated person-centred care model requires a careful reexamination of system-level questions concerning service delivery and integration, the role of the community and individuals, and importantly, health system governance mechanisms and tools. Any vision for a future health system must remain anchored to reality with considerations of equity and sustainability as well as new knowledge and emerging lessons learned from other health systems around the world.

1.5 HEALTH SYSTEMS IN COMPARISON

Global examples offer insight into how health systems meet the challenges of an ageing population and increasing chronic illnesses. Of note is the provision and prioritisation of primary care, community care and integrating care. This section focuses on five jurisdictions: Singapore, New Zealand, the United Kingdom (UK) (National Health Service [NHS] England), the United States (US) (Kaiser Permanente [KP]) and China and the relevant lessons from the respective health systems. A comparison of healthcare spending and health system features are summarised in **Table 1.1** and **Table 1.2**.

TABLE 1.1

Country	Singapore	New Zealand	United Kingdom	United States [#]	China
Total health spending per person (USD)	3,657	3,648	4,285	9,839	779
Total health spending (% of GDP)	4.2%	9.5%	9.8%	16.8%	5.3%
Government health spending per total health spending (%)	51.6%	80.0%	80.5%	50.4%	59.1%
Prepaid private spending per total health spending (%)	16.7%	7.4%	4.9%	38.4%	7.9%
Out-of-pocket spending per total health spending (%)	31.7%	12.6%	14.6%	11.1%	33.0%
Development assistance for health per total health spending (%)	0.0%	0.0%	0.0%	0.0%	0.0%

TOTAL HEALTH SPENDING AND HEALTH SPENDING BY SOURCE

Source: Institute for Health Metrics and Evaluation (IHME). Financing Global Health 2017. Seattle, WA: IHME, University of Washington, 2018.

Notes: Total health spending and health spending by source in 2015 across countries of interest were extracted from Financing Global Health Database, 2017 (IHME, 2018). Spending estimates were extracted as current local currency and converted into inflation-adjusted 2017 purchasing power parity adjusted US dollars.

([#]) Percentages among total health spending is not summed up to 100% due to rounding error.

TABLE 1.2

Country	Delivery and Organisation of Primary Care	Promotion of Integrated Care
Singapore	<ul style="list-style-type: none"> 80% provided by private GPs, 20% provided by public polyclinics for lower-income population. Private primary care providers generally do not function as gatekeepers but public care requires primary care referrals to provide services at subsidised prices. Ministry of Health works closely with private GPs (e.g. through Primary Care Networks (PCN) for chronic disease.) Primary care is operated under a fee-for-service model. Patients pay a portion of their consultation fees post-subsidies at polyclinics in the public sector. At private GP clinics (apart from those participating in the Community Health Assist Scheme [CHAS]), patients bear the full cost through OOP payments. Patients can choose to use funds in their Medisave account, a key component of the "3M" healthcare financing structure at both private GP clinics and public polyclinics to partially offset the bill for selected disease treatment and services with certain limits. 	<ul style="list-style-type: none"> Agency for Integrated Care (AIC) was created in 2009 to bring about a patient-focused integration of primary care with intermediate- and long-term care. National electronic health record (NEHR) accessible across hospitals, polyclinics and other providers.
New Zealand	<ul style="list-style-type: none"> Primary care is funded by the public sector and provided by private providers. GPs act as gatekeepers to secondary care. 	<ul style="list-style-type: none"> A district-level alliance is mandated in each of New Zealand's 20 healthcare districts. Digital Health Work Programme 2020 was launched in 2015 to ensure access to health information across providers in community, hospital, and specialist settings via a single electronic health record.
United Kingdom (England)	<ul style="list-style-type: none"> Primary care is funded by the government and is predominately provided by private GPs (66%) who provide continuous care to patients, gatekeeping and commission secondary care and co-commission primary care while promoting integrated care. General practice is transforming structurally from single-handed "corner shops" to networked practices, which include large multi-practice organisations that use multidisciplinary teams of specialists, pharmacists, and social workers. NHS England set out the General Practice Forward View to continuously improve primary care services from 2016 to 2020. 	<ul style="list-style-type: none"> The Health and Social Care Act 2012. Better Care Fund (BCF). General Medical Services contracts introduced performance bonuses encouraging GPs' role in integrated care coordination. New care models for integrated care. Initiatives of NHS England that connect health records across primary, secondary and social care electronically by 2020.

**United States
(Kaiser
Permanente)**

- Primary and secondary care are connected physically or virtually, and are provided by Kaiser hospitals and medical groups.
- Primary care physicians coordinate care, with salary-based income and small financial incentives to encourage high-quality performance.
- Kaiser Permanente, an integrated managed care consortium, is composed of three different but interdependent groups of entities:
 - i) the Kaiser Foundation Health Plan, Inc. (KFHP) and its regional operating subsidiaries;
 - ii) Kaiser Foundation Hospitals;
 - iii) the regional Permanente Medical Groups.
- Kaiser's model combines the roles of insurer and provider and provides care both inside and outside hospitals, facilitated by a model of multi-specialty medical practice where specialists work together with generalists and patients can move between hospitals and the community without difficulty.
- Patients, hospitals and medical groups have full access to KP HealthConnect, an electronic medical record database, which facilitates integrated care.

China

- Primary care is divided into urban and rural components. In urban areas, 25,000 community health stations (71% owned publicly) perform the functions of satellite sites for about 9,000 community health centres (93% owned publicly). In rural areas, 639,000 village clinics (63% owned publicly) are relatively independent with an informal relation with 37,000 township health centres (99% owned publicly).
- GPs act as gatekeepers in very few areas as referrals are unnecessary for seeing outpatient specialists.
- Integrated Care Delivery Model.
- Medical alliances.

A SUMMARY OF HEALTH SYSTEM FEATURES OF SELECTED COUNTRIES

1.5.1 SINGAPORE

Singapore is frequently compared to Hong Kong in terms of health systems. Both rank among the top three worldwide in health efficiency (Miller & Lu, 2018) although both have differing approaches to health financing reform (Yin & He, 2018). Singapore's system is characterised by a strong emphasis on social planning and individual responsibility for healthcare costs backed by safety net paid for by the taxpayer. It functions on a mixed delivery and mixed financing model offering basic universal healthcare coverage to citizens through public facilities and subsidies while maintaining investment in a significant private healthcare sector.

Key Features of Singapore's Healthcare System

Singapore spent 4.2 percent of GDP on healthcare in 2015, equal to USD3,657 per person. The government shouldered 51.6 percent of total health spending, while 16.7 percent of total health financing was prepaid privately and 31.7 percent was OOP (IHME, 2018). The government partially covers patient care costs provided in public hospitals and primary care polyclinics based on patients' ability to pay (at most 80 percent of the total cost), which is funded through general tax revenue. Co-payments after subsidy can be paid using Medisave savings or covered by MediShield insurance. For those who cannot afford the bills using the Medisave or MediShield combination, expenditures are covered by Medifund as a last-resort measure. With the three schemes (Medisave, MediShield and Medifund) which work in tandem with government subsidies, Singapore's health financing is organised in the form of a "subsidies + 3M framework" (Dieleman et al., 2017; Mossialos, Djordjevic, Osborn, & Sarnak, 2017). In the face of a rapidly ageing population with an increasing demand for long-term care services, the government has made efforts to strengthen long-term care financing through the recent introduction of the "CareShield Life" scheme which specifically protects against the uncertain nature of costs associated with long-term care (Ministry of Health [MOH] Singapore, 2018a).

Organisation and Delivery of Primary Care

Primary care in Singapore is provided through an island-wide network of public outpatient polyclinics, and clinics mostly run by private general practitioners (GPs). There are currently 1,600 private GP clinics, which provide 80 percent of primary care, and 20 polyclinics (MOH Singapore, 2018c). Singapore's primary care system largely operates under a fee-for-service model. Although the cost of treatment is subsidised at polyclinics, patients still have to pay a portion of their consultation fees.

Patients attending private GP clinics, apart from those participating in the Community Health Assist Scheme (CHAS), have to bear the full cost through OOP payments. Patients can choose to use the funds in their Medisave account, a key component of the "3M" healthcare financing structure, to partially offset the bill for inpatient and selected outpatient services of 20 chronic conditions listed under the "Chronic Disease Management Programme" (Tan, 2014). There are withdraw limits on Medisave accounts so patients are required to pay for a portion of their medical care through OOP payments or with private insurance (Gusmano, 2017). Public secondary and tertiary care requires referrals to provide services at subsidised prices. While GPs make referrals they generally do not act as gatekeepers to different levels of care (Mossialos et al., 2017).

The Singapore Ministry of Health (MOH) works closely with private GPs to ensure access to affordable and quality healthcare in the community while promoting continued, preventive, acute and chronic care by family physicians. The MOH launched the Primary Care Networks (PCN) scheme in 2018 to anchor chronic disease management at the primary care level by engaging private GP clinics (MOH Singapore, 2018b).

Promotion of Integrated Care

The Singapore government's commitment of investment to integrated care is plainly evident with the 2009 creation of the Agency for Integrated Care (AIC) (AIC, 2016). The Agency's remit includes post-discharge follow-up treatment for chronic disease patients, enhancing community-level healthcare capacity and quality as well as health and social services integration for elderly and disabled populations (Mossialos et al., 2017). Singapore reorganised its six public hospital clusters into the Regional Health Systems (RHS) in 2010 to integrate with regional polyclinics and GPs for seamless delivery of care (MOH Singapore, 2015b; Shum & Lee, 2014). The MOH announced a further round of reforms in 2017, and the RHS refined into three clusters to improve acute and step-down care coordination between GPs, polyclinics and specialists. Singapore's national electronic health record (NEHR) is accessible across hospitals, polyclinics and other providers while granting patients' access to personal health records (Wee, Zhou, & Tayi, 2015). With an aim to centralise all key information on a single secure platform available to all providers, the NEHR has been implemented in all public hospitals as well as polyclinics, community hospitals and selected GPs and specialist clinics (MOH Singapore, 2015a; Yang, Kankanhalli, & Chandran, 2015). The MOH will roll out the National Patient Health Management portal "Healthy.SG," to allow patient entry of personal health data (Tan, 2014).

1.5.2 NEW ZEALAND

New Zealand's health system ranked fourth out of 11 high-income countries in terms of healthcare system performance, according to the 2017 Commonwealth Fund International Health Policy Survey, (The Commonwealth Fund, 2017). GPs and other primary care clinicians have been working collaboratively in independent practitioner associations (IPAs) for more than 20 years. The experience of New Zealand's IPA is a powerful proof collectivised general practice can expand and enhance primary care services at the community level, providing a valuable example of how to form local integrated-care networks (Thorlby, Smith, Barnett, & Mays, 2012).

Key Features of New Zealand's Healthcare System

New Zealand spent 9.5 percent of GDP on healthcare in 2015 or USD3,648 per person with the government providing 80 percent of health spending while 7.4 percent of total health financing was prepaid privately, 12.6 percent was OOP (IHME, 2018). The government subsidises a broad range of health services financed by general taxes, except for the executions of GP and nursing services which are co-paid (Thorlby et al., 2012). Around 75 percent of public health spending and most day-to-day business is administered by 20 geographically defined district health boards (DHBs) which plan, manage, provide and purchase health services for their own district. DHBs directly provide hospital, community, public health and rehabilitation services. DHBs also set service agreements with Primary Health Organisations (PHOs)² to deliver primary healthcare services. Community services are delivered by private sector providers and non-governmental organisations (NGOs) (WHO & MOH New Zealand, 2012).

² PHOs are networks of health services providers including general practitioners, nurses and allied healthcare professionals that work together to provide continuous care that facilitates better management of long-term conditions using per-capita funding from the government.

Organisation and Delivery of Primary Care

Primary care is funded by the government and provided by private providers which act as gatekeepers to secondary care. GPs are paid by a capitated government-determined subsidy via PHOs and patient co-payments which are set by individual GPs. Primary care clinicians have worked collaboratively in independent practitioner networks since the 1990s. Today, the majority of primary care clinicians belong to an organised network. Some of these networks evolved into PHOs while others provide management support to PHOs, focusing on capacity to plan, develop and support local primary care providers.

PHOs emphasise preventive care and allocate additional funding to GPs who meet service targets including vaccinations, cancer, diabetes, and heart disease screening (Gauld, 2017a). The establishment of PHOs could be considered a remarkable achievement by the New Zealand health system which has improved service provision and lowered co-payment fees (Gauld, 2017a). The majority of New Zealand's population (98 percent) are enrolled in PHOs and have been receiving public subsidised primary care services (Gauld, 2017a).

Promotion of Integrated Care

Since 2013, each of the New Zealand's 20 healthcare districts has featured a district-level alliance led by leaders from different healthcare professions. These alliances function as a mechanism to bring together GPs, nurses and public health and hospital specialists. These alliances have significant flexibility to plan for local healthcare needs as well as set local priorities within national policy parameters. District alliances drive system integration by adapting service models and services to local conditions (Gauld, 2014; Mossialos et al., 2017; Thorlby et al., 2012). There are also ongoing efforts to further deepen integration which include adopting new funding models and contracting for outcomes.

In 2015, the New Zealand Ministry of Health announced the Digital Health Work Programme 2020 to further support integrated care. The health and wellness electronic health record system has been adopted by 359 of 992 GPs, allowing after-hour facilities and some hospital emergency departments to access primary care information (Gauld, 2017a). In one of the four regions of New Zealand, providers in community, hospital and specialist settings can share clinical information among themselves. The other three regions are evaluating their information systems for the same purpose. The use of electronic drug prescriptions is increasingly common at primary care and in hospitals. There is also a rising trend in using telehealth to deliver remote services (Mossialos et al., 2017).

1.5.3 UNITED KINGDOM (ENGLAND)

The UK's health system was ranked highest out of 11 high-income countries in terms of healthcare system performance, according to the 2017 Commonwealth Fund International Health Policy Survey (The Commonwealth Fund, 2017). The UK is an acknowledged leader in palliative care, ranking first in a study comparing quality, staffing numbers and skills, affordability and quality of EOL care among 80 countries (The Economist Intelligence Unit, 2015). The UK offers valuable insights in the organisation and functioning of a public health system and integrated care governance for Hong Kong.

Key Features of NHS (England) Health System

The UK spent 9.8 percent of GDP on healthcare in 2015 or USD4,285 per person. The government provided 80.5 percent of health spending while 4.9 percent of total health financing was prepaid privately and 14.6 percent was OOP (IHME, 2018). Although the performance across the UK as a whole was measured for the purpose of international comparisons, healthcare in the UK is in fact a devolved matter. England, Northern Ireland, Scotland and Wales each has their own publicly-funded health systems which are financed and accountable to different governments and parliaments (McSorley, 2007). This report focuses on England due to England's recent large-scale NHS reforms following the 2012 Health and Social Care Act and because the bulk of the UK population resides in England where the greatest impact of health policy reforms fall (Katikireddi, McKee, Craig, & Stuckler, 2014; McSorley, 2007). Since April 2013, England's 10 Strategic Health Authorities and 152 Primary Care Trusts have been replaced by NHS England with more than 200 Clinical Commissioning Groups (CCGs). NHS England commissions primary care, specialised services and some public health services while CCGs commission most secondary services and co-commission GP services in local areas. The resulting NHS moved from a manager-led to a clinically-led system for planning and designing health services with a fundamental focus on primary care (Moran et al., 2017).

Delivery and Organisation of Primary Care

Primary care is predominately provided by private GPs (66 percent) in England, (Mossialos et al., 2017) which is largely free of charge for residents registered with a local practice of their choice (Mossialos et al., 2017). Outpatient prescription drugs are subject to co-payment. General practice is undergoing a structural transformation from single-handed "corner shops" to networked practices involving multidisciplinary teams of allied health workers, nurses and other clinical staff. There are also financial incentives for GPs to provide patients with continuous monitoring services. GPs under NHS England play a central role in gatekeeping, providing continuous care to patients, commissioning secondary care, co-commissioning primary care and promoting integrated care (Mossialos et al., 2017).

Continuous primary care services improvement remains a top priority for English patients and NHS England (Healthwatch England, 2017; NHS England, 2016a). NHS England set out the General Practice Forward View and committed to an extra GBP2.4 billion a year to support primary care from 2016 to 2020. The plan seeks better access to primary care, a stronger focus on population health and prevention, a wider workforce, investment in technology and estates and better integration with community, preventive services, hospital specialists and mental health experts (NHS England, 2016a).

Promotion of Integrated Care

The forefront of NHS reform efforts are the integration of provision and commissioning of hospital and community-based health services including primary and social care. The Health and Social Care Act 2012 introduced changes to promote the closer integration of services. Health and wellbeing boards are staffed with representatives from CCGs, local authorities, HealthWatch organisations, and members chosen by local areas. The Boards assess the health needs of their local population, develop joint health and wellbeing strategies and promote integration of different health and care services. In 2013, the government announced the Better Care Fund (BCF) of GBP3.8 billion to promote integration projects by local health and social care commissioners. BCF facilitated closer working links between those tasked with developing joint plans for integration – particularly commissioners (Lewis, Rosen, Goodwin, & Dixon, 2010; NHS England, 2016a). The General Medical Services contracts between the British Medical Association (representing doctors) and the government introduced performance bonuses in 2014 to promote care coordination. General practices are increasingly transforming into multidisciplinary practices serving as hubs which direct patients to different points of care in a hospital or community-based centre (Mossialos et al., 2017).

Outside of government, the NHS five-year forward view (Forward View) was published by NHS England and other national bodies in 2014 (NHS England, 2014). To date, there are 50 vanguards testing five new care models, including multispecialty community providers (MCPs), primary and acute care systems (PACS), enhanced health in care homes, urgent and emergency care and acute care collaborations (NHS England, 2014, 2016c). MCPs and PACS demonstrated lower growth in emergency hospital admissions and length of emergency inpatient stays in areas of implementation when compared with the rest of the England (Ham, 2017).

NHS England also provides funding schemes to encourage primary, secondary and social providers to switch to electronic patient records. As of 2016, both paper and electronic records were still used and stored in a variety of settings. NHS England intends to facilitate a better flow of patient information by connecting electronic health records across primary, secondary and social care by 2020 (Parliamentary Office of Science and Technology, 2016).

1.5.4 UNITED STATES (KAISER PERMANENTE)

The US healthcare system is unique among high-income countries, with no universal healthcare coverage and only recently has legislation been enacted to mandate healthcare coverage for most of its citizens. A substantial proportion of residents are covered by public health spending via Medicare, Medicaid, the Children's Health Insurance Program and the Veterans Health Administration. Yet the majority of residents rely on either employment-based and private individual health insurance or are uninsured. Rather than a national health system, the US experience can be reasonably described as a hybrid (Department for Professional Employees, 2016).

Key Features of US (KP) Healthcare System

The US spent 16.8 percent of GDP on healthcare in 2015 or USD9,839 per person. The government provided 50.4 percent of health spending while 38.4 percent of total health financing was prepaid privately and 11.1 percent was OOP (IHME, 2018). Across eight states (Hawaii, Washington, Oregon, California, Colorado, Maryland, Virginia, Georgia) and the District of Columbia, KP is regarded as the top-performing and affordable healthcare providers where it operates (The Economist, 2010). KP is an integrated managed-care consortium made up of three distinct but interdependent groups of entities; i) the Kaiser Foundation Health Plan, Inc. (KFHP) and its regional operating subsidiaries; ii) Kaiser Foundation Hospitals; iii) the regional Permanente Medical Groups (KP, 2018). KP as a whole is a non-profit integrated healthcare system which has health plan, hospitals and medical groups in close cooperation through exclusive and interdependent contracts. The mutual interdependency of KP's entities provides incentive for cooperation. Core KP principals affect its service regions, yet each region has the autonomy to customise delivery based on local needs (Baird et al., 2018; Curry & Ham, 2010; McCarthy, Mueller, & Wrenn, 2009).

Delivery and Organisation of Primary Care

KFHP contracts with individuals and groups for comprehensive healthcare services that are prepaid through capitation while its Foundation Hospitals are integrated with Permanente Medical Group's for-profit physician group practices. Its hospitals and medical groups provide all clinical services including primary and secondary care services which are connected physically or virtually. Primary care physicians coordinate care with salary-based income and small financial incentives that reward quality performance (Townsend, 2014). While KP's Health Plan and hospitals operate under not-for-profit status, the Medical Groups operate as for-profit entities in their regions (Strandberg-Larsen et al., 2010).

Promotion of Integrated Care

The KP health system is often highlighted as a noteworthy example of successful clinical service integration. KP's model combines the roles of insurer and provider and provides care both inside and outside hospitals facilitated by multi-specialty medical practices where specialists work together with generalists. Patients can move freely between its hospitals and community networks without difficulty (Ham, 2006). In California, KP owns and operates a large number of clinics, hospitals, laboratories and pharmacies. Patients can receive both primary and secondary care at all of their clinics, undergo laboratory and imaging tests and get prescriptions filled at most of them. At some clinics, patients can even undergo same-day outpatient surgery, allowing patients' healthcare needs to be met at a single facility. Furthermore, patients, hospitals and medical groups have full access to the KP HealthConnect electronic medical record database.

1.5.5 THE PEOPLE'S REPUBLIC OF CHINA (PRC)

The health of the PRC's citizenry has seen considerable improvement in the past six decades. China nears its goal of achieving universal health coverage by 2020 with 95 percent of the total population covered as of 2013. The Chinese government has established healthcare reform plans to further increase the quality and accessibility of healthcare.

Key Features of China's Healthcare System

PRC spent 5.3 percent of GDP on healthcare in 2015 or USD779 per person. The government provided 59.1 percent of health spending while 7.9 percent of total health financing was prepaid privately and 33.0 percent was OOP (IHME, 2018). Health insurance is publicly provided and financed by local governments in PRC. Publicly financed insurance can be categorised into three major types: 1) urban employment-based basic medical insurance (launched in 1998); 2) urban resident basic medical insurance (launched in 2009); and 3) the “new cooperative medical scheme” for rural residents (launched in 2003). Although provincial health authorities define the benefit packages for each province, public insurance generally covers primary, specialist, emergency department, hospital, mental healthcare, prescription drugs and traditional medicine, subjected to different deductibles, co-payments, and reimbursement ceilings (Mossialos et al., 2017).

Organisation and Delivery of Primary Care

Primary care in PRC is divided into urban and rural components. In urban areas, 25,000 community health stations (71 percent owned publicly) serve as satellite sites of about 9,000 community health centres (CHCs) (93 percent owned publicly) (Li et al., 2017). In rural areas, 639,000 village clinics (63 percent owned publicly) have a more independent and informal relationship with the 37,000 township health centres (99 percent owned publicly) above them (Li et al., 2017). Village clinics operate as for-profit entities with income primarily generated from government subsidies which are transferred through the health insurance programmes and basic public health service programmes (Li et al., 2017).

Promotion of Integrated Care

Part of its most recent health system reforms sought to alleviate the burden placed on tertiary hospitals and divert demand to community-based care. The government established an Integrated Care Delivery Model to improve access and coordination through “the adoption of computerised clinical pathways, a shift from fee-for-service to case-based payment, performance based payment for care providers, and Information technology (IT)-based monitoring on service quality of healthcare facilities” (Shi et al., 2015). Through this IT-driven model, CHCs focus on primary care and managing chronic diseases. Based on CHC’s assessments, patients with more complicated cases are referred to hospitals. Moreover, an integrated information system allows CHCs and hospitals to share patients’ information (Shi et al., 2015). Various other pilot integrated healthcare delivery projects have been carried out in different parts of PRC and new studies were conducted to measure the association between integrated care and quality of care.

Medical alliances were also introduced to bring vertical integration by combining primary healthcare institutions with secondary and tertiary hospitals to form a multi-hospital system. This vertical integration aims to channel patients to all care centres via primary healthcare institutions as the first point of contact, reducing visits to tertiary services. Meanwhile, patients with serious health issues can access tertiary hospitals by referrals and move back to primary healthcare facilities for rehabilitation. Such arrangements aim to promote seamless medical care and efficiency. Pilot medical alliances have been formed in Shanghai, Beijing, Wuhan and Shenzhen (Hu, Ljungwall, & Wikström, 2013; Mossialos et al., 2017).



Chapter 2

Our Health
System -
Where we are

Hong Kong's health system has enabled long lifespans with universal access to public services at an overall low cost (A.Y.M. Leung, Chi, & Aranda, 2011). However, our health system must adapt in the face of 21st century challenges, circumstances and fundamental necessities. A new normal will see a growing burden of chronic disease, increasing costs and ultimately concerns over sustainability. Providing accessible, affordable and well-integrated primary and community care are ongoing challenges. Mapping the path to a fit for purpose health system is complex and demanding. This chapter reviews Hong Kong's current health system and its challenges.

HONG KONG: AN OVERVIEW

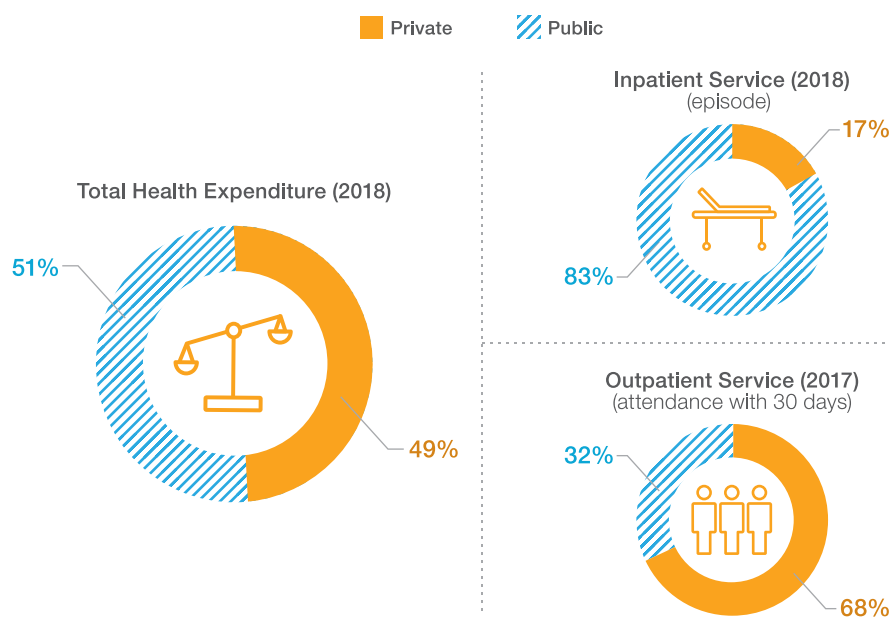
The fundamental principle, “no one is denied adequate medical treatment due to lack of means,” guides Hong Kong's public healthcare system (Food and Health Bureau of the Hong Kong SAR [FHB], 2008a). The Government is the primary funder and provider of inpatient and hospital health services through tax financing while the private sector operates in parallel providing services mostly in the ambulatory care settings (FHB, 2018d). Overall spending between the public and private sectors is for the most part evenly divided, with 51 percent of total expenditure in the public sector and 49 percent in the private sector (FHB, 2018d). Public services provide a baseline for universal coverage. This includes inpatient care, health protection and promotion, prevention services, and community services and social care services (FHB, 2018d). Public health and social services are largely provided by FHB and the Labour and Welfare Bureau (LWB). The majority of outpatient services are provided in private care.

2.1 OUR HEALTH SYSTEM

2.1.1 STRUCTURE

The overall structure of the Hong Kong's health system and the services provided in Hong Kong are outlined in **Figure 2.1**.

FIGURE 2.1



HONG KONG'S SEGMENTED HEALTHCARE SYSTEM

Sources: American Chamber of Commerce in Hong Kong, 2015; Census and Statistics Department of the Hong Kong SAR (C&SD), 2017c, 2018; FHB, 2018d.

Food and Health Bureau

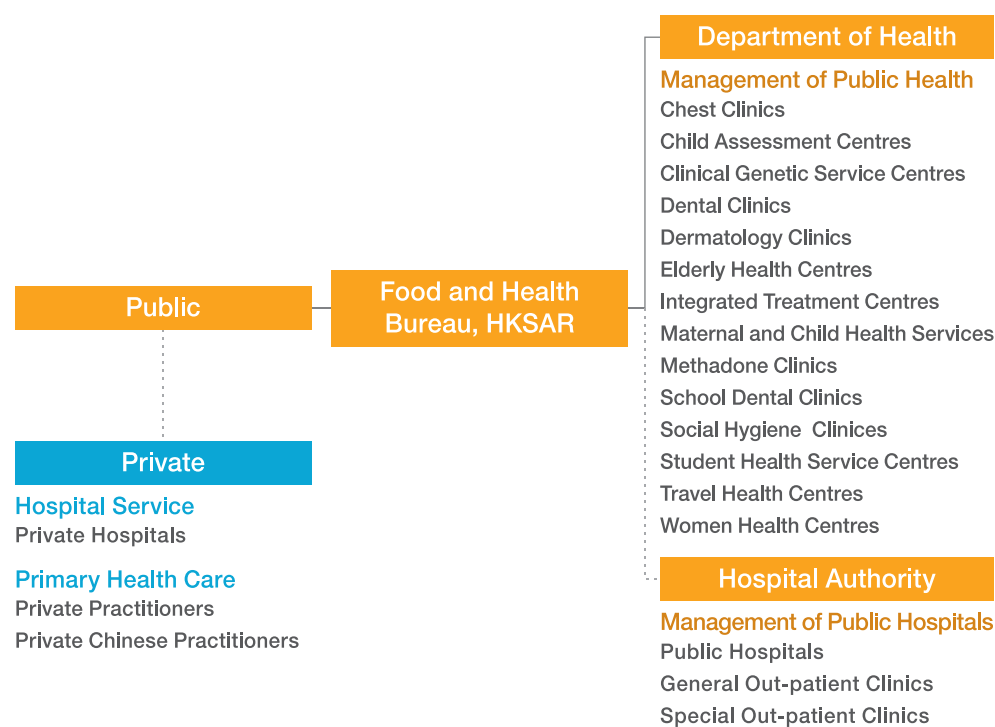
FHB is the Government bureau overseeing overall health system policies and resource allocation. It is responsible for oversight of public health and access to ensure care for all citizens (Government of the Hong Kong SAR, 2018d). FHB is the steward of our health system entrusted with the leadership of governance of our health system.

The Department of Health

The Department of Health (DH) is under FHB and is the Government's strategic advisor on health issues. It is responsible for executing healthcare policies and provides a broad range of protective, promotional, preventive, curative and rehabilitative services through different divisions, offices, and centres (Government of the Hong Kong SAR, 2018d). For instance, DH operates the Centre for Health Protection (CHP) and a number of specialised clinics such as maternal and child health services, elderly health centres, drug treatment facilities and dental clinics (**Figure 2.2**). Through the operation of these centres and clinics, DH performs its public health functions (e.g. disseminates health information and guidelines, public health alerts, implementation of preventive measures and carrying out health promotion activities) (Government of the Hong Kong SAR, 2018c). DH also regulates and monitors facilities in all private hospitals and medical clinics registered

under the Medical Clinics Ordinance (DH, 2018d) and provides secretariat support to 12 professional boards and councils. Healthcare professionals from 12 listed healthcare professions, including 7 allied health professions, are required to register with respective boards and councils to comply with their rules and practice in Hong Kong (DH, 2007; LWB, 2017).

FIGURE 2.2



STRUCTURE OF THE HEALTHCARE SYSTEM IN HONG KONG

Source: Government of the Hong Kong SAR, 2018d.

The Hospital Authority

The Hospital Authority (HA) was established in 1990 and is responsible for managing the public hospital system. It also provides medical treatment, rehabilitation services and palliative care through a network of specialist outpatient clinics (SOPCs), general outpatient clinics (GOPCs) and community outreach teams. Its mandate spreads over seven geographical clusters (Government of the Hong Kong SAR, 2018c, 2018d). HA is accountable to the Government through performance and quality targets and service indicators through FHB, which funds HA and its services (Government of the Hong Kong SAR, 2018e).

Private Health Service Providers

The private care sector complements the public sector by providing a range of holistic care services from various types of health professionals who work largely in solo practice. The service scope includes Western medicine, Chinese medicine, dental care and allied health services. There are 88 registered clinics under the Medical Clinics Ordinance in 2017 (DH, 2018b) and 12 private hospitals under the Hospitals, Nursing Homes and Maternity Homes Registration Ordinance (DH, 2018c). Private hospitals offer a variety of services including generalist and specialist outpatient appointments and specialist inpatient services.

Financing

Hong Kong's health financing system funds public sector health services mainly through general tax revenue (G. M. Leung & Bacon-Shone, 2006). This tax-based financing arrangement provides roughly half of current health expenditure (FHB, 2018d). The latest 2018 HKSAR Government budget estimated a significant 13.3 percent increase in expenditure on public healthcare services between 2017/18 and 2018/19, accounting for 17.5 percent of the total recurrent government expenditure budget (Government of the Hong Kong SAR, 2018f).

In the context of an ageing population and the rising prevalence of chronic illnesses, FHB projects total health expenditure will increase at an average annual growth rate of 1.5 percent from 2004 through 2033 when healthcare will constitute 27.3 percent of total government spending (FHB, 2008a). Increasing healthcare utilisation and associated costs coupled with a shrinking workforce and tax-base further intensifies pressure on the tax financing system (Yeung & Chan, 2006). The ability of our present health financing system to absorb current and foreseeable challenges in a sustainable manner is an increasingly pressing question.

Box 2.1

LEVELS OF CARE

A healthcare system can generally be divided into three levels of care: primary, secondary and tertiary. At the first level, primary care is the initial point of contact in the healthcare process and includes health promotion, basic curative services and prevention of diseases. Secondary and tertiary comprise predominantly specialist, ambulatory and hospital services (DH, 2018a).

Source: DH, 2018a.

2.1.2 SERVICE DELIVERY

Hong Kong's healthcare system relies on providers from both public and private sectors to provide preventive, curative, rehabilitative, long-term health and social-care services. However, public and private health care services are segmented into "dual-tasks". They are delivered through different modes including inpatient, outpatient, day-care and home-based services provided on a continuum which stretches from hospitals to rehabilitation facilities and into the community.

Curative Care

Hong Kong has historically prioritised hospital and inpatient services especially in curative care. According to the latest Domestic Health Accounts (DHA), curative care represented 67.8 percent of current health expenditure (public and private) in 2015/16. Of this, 51.2 percent is accounted for by the public sector (FHB, 2018d). Among public health expenditures, hospitals obtained 73.3 percent to provide services (FHB, 2018d).

Delivery of curative inpatient care in the public sector is geared towards acute conditions rather than the extended management of chronic illnesses. **Utilisation of public inpatient curative services is weighted towards older patients and those with chronic conditions.** A heavy reliance on public inpatient acute care jeopardises the re-integration of patients into the community (HA, 2016) and leads to persistently high bed occupancy which affects care pathway (i.e. admission and referral decisions) and healthcare process (HA, 2017c). These pose significant risks to the long-term sustainability of healthcare services. Nearly one-third of admitted patients are aged 65 or older (C&SD, 2017c) and bed utilisation for this same age group is approximately nine times that of those under 65 years of age (HA, 2017c). For patients aged 85 years and above, it was approximately 20 times (HA, 2017c).

In contrast with inpatient care, outpatient care is mainly provided by the private sector accounting for 61.4 percent of current health expenditure on outpatient care (FHB, 2018d). Many private providers combine their services, offering both primary and speciality care (FHB, 2010a) and referrals are generally not required for patients seeking between different levels of care.

Out-of-pocket (OOP) payment is common for care provided in the community by private practitioners, though voluntary medical insurance, employer provided coverage. More recently publicly funded voucher schemes for the elderly or seasonal vaccination programmes also exist. In comparison with public sector consultation fees (HKD50 at GOPC, HKD 135 at SOPC) (HA,2018b), high fees and OOP payments in the private sector - ranging from HKD200 for primary consultation to above HKD1,000 for specialist consultations - push users towards the public sector (The Hong Kong Medical Association, 2014). This is especially the case with elderly people and those with chronic diseases requiring long-term care (S.Y. Wong et al., 2010; Yuen, 2014).

Unable to afford private care and subject to “rotating doctors” in public services, many are left without a dedicated family doctor. Indeed in a study of 11 developed countries, Hong Kong came last when it came to a consistent source of care for elderly people suffering from multimorbidities (S. Y. Wong et al., 2017). Despite clear evidence that stronger primary care results in better health, lower costs and high patient satisfaction (Griffiths & Lee, 2012), local government expenditure on primary care service and manpower provision is a fraction of what is spent on specialised care. The bulk of primary care is in the hands of private practitioners with minimal government subsidy (Griffiths & Lee, 2012). Current funding patterns and stakeholder relations incentivise the public to over-rely on the public sector, overburdening public sector assets and leading to lengthy wait times.

The current funding system encourages ‘doctor-shopping’ behaviours and leads to fragmented care. The public, especially the elderly and chronically ill, move between private and public outpatient services to gain access for their on-going health needs. With the expected rise in proportion of the elderly population and chronically ill patients, demand for public outpatient curative services is bound to increase significantly and management of waiting time for health services will be an escalating challenge for the public sector.

Rehabilitative and Palliative Care

While curative services focus on health conditions, rehabilitation services focus on the associated functioning of health conditions (Organisation for Economic Co-operation and Development [OECD], 2011). The scope of rehabilitation is wide and includes restoring and maintaining optimal physical, psychological, sensory, intellectual, and social functionality (OECD, 2011). **In Hong Kong, rehabilitative care persistently contributes to less than 10 percent of current health expenditure and accounting for 6.6 percent in 2015/16 (FHB, 2018d).** The public sector dominates in this respect, contributing to 75.4 percent of current health expenditure on rehabilitative care in 2015/16 (FHB, 2018d). HA provides a range of public rehabilitation services provided by inpatient acute and extended care settings, Geriatric Day Hospitals (GDHs), rehabilitation day programmes, allied health outpatient (AHOP) service, allied health community service, Community Nursing Service (CNS) and Community Geriatric Assessment Team (CGAT) (HA, 2016). Notably, the Social Welfare Department (SWD) is among HA's major external partners and provides subvention to non-governmental organisations (NGOs) to operate rehabilitation services in the community (e.g. the Community Rehabilitation Network (CRN) run by the Hong Kong Society for Rehabilitation) (Government of the Hong Kong SAR, 2016b; HA, 2016).

Despite extensive service, scope and volume, considerable gaps exist in the provision of rehabilitation services. For instance, **the current development of rehabilitation services and manpower provision prioritises hospital settings rather than the community.** Eighty-six percent of HA's stroke patients received inpatient rehabilitation while 20 percent and 19 percent received day and outpatient rehabilitation respectively in 2013 (HA, 2016). HA focuses primarily on medical rehabilitation. The provision of non-medical rehabilitation (e.g. social rehabilitation services) is highly variable. Non-medical rehabilitation is provided separately by various parties (e.g. NGOs and voluntary alliances for patients and carers) with wide variations in service provision and target groups within and across clusters (Government of the Hong Kong SAR, 2016b). Efforts have been made to promote medical and social rehabilitation services, SOPCs have been engaged to link medical and social services and encourage better patient rehabilitation and reintegration into the community (Legislative Council of the Hong Kong SAR, 2002). However, there are currently limited facilities and manpower provision. As of 2016, there were only 438 medical social workers (Government of the Hong Kong SAR, 2016b) which further hampers efforts to link up various rehabilitation services (HA, 2016).

HA rehabilitation services are also plagued by a rising demand brought on by population ageing as well as increasing prevalence of chronic health conditions. According to a 2013 household survey conducted by C&SD, the overall prevalence of persons with disabilities increased from 5.2 percent in 2007 to 8.1 percent in 2013. The largest increases were seen in persons in older age groups and with functional restriction (C&SD, 2014). The survey also revealed about one-third of the persons with functional restriction (36.7 percent) or chronic diseases (33.1 percent) encountered difficulties in seeking medical or rehabilitative care (C&SD, 2014). The current prioritisation of public inpatient care and medical aspects of rehabilitation services jeopardises the reintegration of patients into the community and creates unnecessary pressure on public hospitals, imposing a significant risk on the sustainability of our health system.

Currently, the majority of end-of-life (EOL) care and palliative care in Hong Kong is provided in institutional settings (hospitals and residential homes). HA plays a significant role in palliative care delivery, providing care to the majority of terminally ill patients (HA, 2017d). HA's palliative care services comprise: inpatient and consultative, ambulatory, community, and psychosocial care and bereavement care (HA, 2017d). These services provide terminally ill patients with comprehensive care including control of symptoms, pain management, counselling for patients and families, and spiritual support in both hospital and community settings (HA, 2017d).

In 2017, 16 HA hospitals were offering adult palliative care services to patients with over 360 beds (HA, 2017d). Palliative services are also provided by outpatient clinics, day care centres and out-reach teams under HA to patients who prefer to stay in their familiar environment at the EOL period (HA, 2017d). In the non-profit sector, The Haven of Hope Christian Service also provides EOL and palliative care, offering 124 beds, and the Jockey Club Home for Hospice (a public-private facility operated by the Society for the Promotion of Hospice Care) offers 30 beds (Sakhrani, 2017).

Long-Term Care

Long-term healthcare refers to nursing, medical, personal and assistive services related to activities of daily living (ADL) to alleviate pain and suffering and manage deterioration. Long-term social care refers to low-level social care services that facilitate instrumental activities of daily living (IADL) for patients with long-term dependency (OECD, 2011). DHA estimates of expenditure are only available for long-term healthcare, which consistently makes up less than six percent of current health expenditure. In 2015/16, long-term care is overwhelmingly provided for in the public sector. (FHB, 2018d). In partnership with NGOs, the Government has developed comprehensive long-term care services, including community care services (CCS), covering Integrated Home Care Services (IHCS), Enhanced Home and Community Care Services (EHCCS), Day Care Centers and Units for the Elderly (DE); and residential care services (RCS) covering Homes for the Aged, Care-and-Attention (C&A) homes, and nursing homes (SWD, 2018b).

Despite the array of services offered, Hong Kong's long-term care services remain challenged by longstanding problems. Firstly, an over-reliance on publicly-funded service provision leads to imbalances between public and private long-term care services (E.W.T. Chui, 2011). In the CCS domain, there is a limited number of private providers (E.W.T. Chui, 2011). In the RCS domain, 26 percent of residential care beds were provided by government subsidised NGOs while 11 percent of the residential care beds were government-purchased beds from private operators through the Enhanced Bought Place Scheme (SWD, 2018a). Although the private sector provided 69 percent of beds, approximately 80 percent of operating costs was subsidised by the Government (E.W.T. Chui, 2011; SWD, 2018a).

Wait times are another cause of concern for residential and community-based services. A 2014 Government audit report on long-term care reported that elderly persons needed to wait for 36 months for subsidised C&A places in subvented/contract Residential Care Homes for the Elderly (RCHEs), seven months for purchased C&A places in private RCHEs and 32 months for subsidised nursing home (NH) places (Audit Commission of the Hong Kong SAR, 2014a). **As Hong Kong has the highest institutionalisation rate of 6.8 percent among many developed countries (Sau Po Center on Ageing, 2011), service capacity does not come close to matching the existing demand.** The number of elderly who died while waiting for a place in a subsidised nursing home was about 5,000 in 2013/14 (Audit Commission of the Hong Kong SAR, 2014a). Meanwhile, the average waiting time for subsidised CCS are at least 6 months. As of 30 September 2018, an elderly person needs to wait for 16 months for IHCS or EHCCS and 10 months for placement in DE (SWD, 2018c). In 2017/2018, the enrolment rate for DE and DCUs was 5 percent over capacity of DE/ DCUs (Government of the Hong Kong SAR, 2018e).

The population aged 65 or above is projected to double by 2030 (C&SD, 2017c). It is questionable if the current system will be able to cope with the existing residential and community care service capacities.

Mental Health

FHB is responsible for the overall coordination of policies and programmes relating to mental health (Cheng, 2011). FHB adopts a cross-sectoral and multidisciplinary approach and works with HA, DH, LWB, SWD and NGOs to provide mental health services (Cheng, 2011).

HA is the largest service provider for people with mental disorders, providing psychiatric inpatient and day curative care at SOPCs and through community outreach (Government of the Hong Kong SAR, 2018c). Between 2011/2012 and 2015/2016, the number of patients using HA psychiatric services increased by 22 percent (Research Office of the Legislative Council Secretariat, 2017), while the number of psychiatric SOPCs and psychiatric outreach attendances increased by 9.2 percent and 28.2 percent, respectively (Research Office of the Legislative Council Secretariat, 2017). Nonetheless, the number of psychiatric doctors and psychiatric nurses working in HA only increased by 3 percent and 14.4 percent, respectively (Government of the Hong Kong SAR, 2018c; Research Office of the Legislative Council Secretariat, 2017). The case manager to patient ratio for patients with severe mental illness was 1:47 in 2015/2016 with 327 case managers taking care of 15,400 patients with severe mental illness. This is much higher than the 1:40 ratio recommended by the Review Committee on Mental Health (Research Office of the Legislative Council Secretariat, 2017), and indicative of a shortage in manpower. This has resulted in overburdened public psychiatric services with lengthy and increasing waiting time. Waiting time for new routine cases in child and adolescent psychiatric SPOCs increased from 12 to 52 weeks in 2012/2013 to 41 to 95 weeks in 2015/2016 (Research Office of the Legislative Council Secretariat, 2017).

As another major provider of mental health services, SWD subvents 11 NGOs, which operate 24 Integrated Community Centres for Mental Wellness (ICCMWs) (Government of the Hong Kong SAR, 2017b). The ICCMWs aim to provide one-stop and community support services, ranging from prevention to crisis management, for individuals with mental health concerns and their families and carers in the community (FHB, 2017a; LWB, 2015). Between service commencement in 2010 and December 2016, ICCMWs served more than 59,000 individuals and conducted more than 16,000 public education activities (LWB, 2017). ICCMWs make an average of roughly 62,000 outreach visits per year (Government of the Hong Kong SAR, 2017b). Nonetheless, as of 2016 the 24 ICCMS were manned with only 363 social workers and 43 psychiatric nurses (Government of the Hong Kong SAR, 2017b). In addition to the increasing prevalence of mental illnesses, an ageing population also draws concerns toward the provision of mental health services (FHB, 2017a). Given the continuous rise in the number of people requiring mental health services and the anticipated increase in mental health needs in the elderly population, how the Government strengthens service capacities of HA facilities and ICCMWs to cope with increasing service demand while managing staff work pressure and service quality poses a significant challenge. **Among all ICCMW service users, around 21 percent were aged 60 or above (LWB, 2017). It was estimated the total number of people with dementia worldwide will increase from 50 million in 2018 to 82 million in 2030 and 152 million in 2050 (World Health Organization [WHO], 2017b), necessitating an increase in capacity for the provision of mental health services.**

Dental Care

Although individuals in specific age groups and with specific needs receive subsidised dental care services from DH, FHB and Community Care Fund (CCF), the general public primarily turn to the private sector for dental care (Research Office Legislative Council Secretariat, 2016). Expenditure on dental services provided by

DH, FHB and CCF increased from HKD760 million in 2011/2012 to HKD1.01 billion in 2015/2016, representing a 33 percent increase (Audit Commission of the Hong Kong SAR, 2017).

Elders are at a higher risk of oral health problems (DH, 2011) yet they had the lowest utilisation rate of dental care services among all the age groups surveyed (C&SD, 2017c). The Elderly Dental Assistance Programme was launched under the CCF to provide free dental care services for low-income elders (C&SD, 2017c). As of 2016, 415 private dentists and 98 dentists from NGO-operated dental clinics participate in the Programme, providing services to 10,733 elderly persons (Audit Commission of the Hong Kong SAR, 2017). According to the latest Policy Address, the Government has refined the service scope of the Programme and will expand the target beneficiaries to cover all elderly persons receiving Old Age Living Allowance by lowering the age limit to 65 (Government of the Hong Kong SAR, 2018f).

Similarly, DH launched the Outreach Dental Care Programme in 2014 to provide outreach dental care services to elders in the community and oral care training to caregivers in residential care homes and day care centres (Government of the Hong Kong SAR, 2017a). Between 2014 and 2017, the Outreach Dental Care Programme provided dental services to about 68,300 elders (Government of the Hong Kong SAR, 2017a). In addition, DH manages numerous dental clinics and units including eight school dental clinics under the School Dental Care Service which provides dental care services to 97 percent of all primary school children in 2016/2017 (Government of the Hong Kong SAR, 2018c). The outreach programme also supported 11 emergency dental clinics, providing specialist oral healthcare in seven public hospitals and ran the Oral Health Education Unit which provided oral health education to the public (Government of the Hong Kong SAR, 2018c).

However, under-utilised public dental services is a matter of concern (Audit Commission of the Hong Kong SAR, 2017). In the Outreach Dental Care Programme, 19 percent of invited residential centres and 40 percent of elderly persons who needed dental treatment refused to participate as of 2016 (Audit Commission of the Hong Kong SAR, 2017). In the Elderly Dental Assistance Programme only 8 percent of elderly persons participated in the Programme as of September 2016 (Audit Commission of the Hong Kong SAR, 2017). Another cause of concern is a shortage of dentists. With enhanced public awareness for dental health, the demand for dental services is set to increase (FHB, 2017b). Nonetheless, the FHB strategic manpower report projected a shortage of dentists of 53 on 2016 to 127 in 2030 (FHB, 2017b).

As our society ages and advances, the need for dental services will rise. However, utilisation rates of subsidised services are lower than expected while dental manpower shortages has forecast for both private and public sectors. Measures to maximise the utilisation of general public sessions to better meet public demand with existing resources and encouraging elderly persons to receive necessary dental treatment in the midst of an anticipated manpower shortage are imperative.

Chinese Medicine

Traditional Chinese medicine (TCM) is commonly viewed as a supplementary alternative or as complementary to biomedical (BM) care. TCM was not formally included in Hong Kong's healthcare system until the 1997 Return of Sovereignty and is often perceived to be effective in treating NCDs by enhancing wellbeing and treating underlying factors through personalised treatment with few side effects (V. C. Chung, 2014).

A considerable number of patients in Hong Kong using TCM services were identified from a local household survey in 2016/17, with 16.7 percent of respondents consulting TCM practitioners 30 days before enumeration (C&SD, 2017b). In 2016 there were 1.95 million visits to private Chinese medicine clinics. Elderly persons eligible for the Elderly Health Care Voucher Scheme (EHCVS) can use their vouchers for TCM consultations in the private sector.

Hong Kong's TCM services are mainly provided by the private sector and through 18 Chinese medicine outpatient clinics located in public hospitals under a tripartite collaboration model involving HA, NGOs and a local university. HA regulates operations of the clinics by contract and tendering while eligible NGOs operate the clinics. Development of Chinese medicine is supported by the Government with a HKD500 million fund allocated for TCM promotion (Government of the Hong Kong SAR, 2018f).

Box 2.2

INCORPORATING TRADITIONAL CHINESE MEDICINE

Traditional Chinese Medicine (TCM) plays an important role in Hong Kong's health system and may be instrumental in helping patients manage chronic illness. Chinese medicine practitioners are the main alternative providers of primary care and 16.7% of patients consult both Western and Chinese medical practitioners (C&SD, 2017c). Better utilisation and integration of TCM may help relieve pressure on the public health system for both inpatient and outpatient care. The Government has announced the development of a Chinese Medicine Hospital in Tseung Kwan O and supports pilot projects trialing the delivery of integrated Chinese-Western medicine for inpatients with specific diseases, including stroke, palliative cancer care, and acute lower back pain (HA, 2017b). These integrated services are offered in select Hong Kong hospitals.

2.2 CURRENT CHALLENGES

As we review barriers in Hong Kong's current health system, several trends have been identified across functions of care, limiting the system's overall ability to sustainably cope with population health needs in the long run. These barriers include fragmentation, unbalanced provision and inadequate medical-social collaboration.

2.2.1 FRAGMENTATION

Fragmentation in health systems results from inadequate coordination and ineffective integration and gives rise to inefficiencies in resource allocation and misalignment of incentives. These factors negatively impact quality, cost and outcomes and ultimately harm patients (Enthoven, 2009). This problem faces health systems around the world with challenges including weak referral and discharge systems, poor continuity of care, dominance of curative care models and ineffective or inefficient systems linking providers across services and sectors. In summation, it contributes to disjointed and ineffective care (WHO, 2016a).

Hong Kong's present care model focuses on acute and episodic illnesses, offering a quick fix rather than the chronic disease model necessary for continuity of care. The status quo is oriented around organs and disciplines and tends to be organised by speciality and department (Chu & Chi, 2006). This runs counter to current utilisation patterns in which more than half of hospital patients suffer from chronic conditions which are better addressed at lower levels and through life course primary care and community approaches to care (C&SD, 2017c). The current public service delivery model and organisation of care generates excessive demand and limits patient access through longer wait times and cycles of readmission (HA, 2017c). Rapid bed turnover contributes to negative outcomes such as the loss of functional ability for elderly patients post-hospitalisation. Staff weighed with heavy workloads can turn hospitals into unfriendly settings for care and worse lead to failures at discharge including inadequate carer or elder abuse (Chu & Chi, 2006).

Patients, particularly the elderly, with co-morbidity are often managed through multiple speciality or sub-speciality clinics. This way of care is inefficient, leading to unnecessary visits and longer wait times. The phenomenon of serial referrals to specialists, rather than providing care through generalists or multidisciplinary teams, is symptomatic of fragmentation. Serial referrals often results in duplication of care and longer lengths of stay without guaranteeing higher quality (HA, 2017c). Further fragmentation in community care and specialist outreach means patients may be seen by multiple teams even within the same discipline. An example of this needless redundancy includes elderly patients receiving outreach nursing support from multiple but limited sources. Thus, the CGAT may provide a patient assessment, while the CNS may offer direct nursing care. Having so many parties involved can also lead to discontinuity as well as inefficient use of resources (HA, 2017c). While some clusters have begun integration this is far from the norm. Similar problems plague other service providers. For example, SOPCs manage illnesses of patients, particularly the elderly with co-morbidity, through multiple speciality or sub-speciality clinics (HA, 2017c).

Insufficient coordination within and across different sites of care is a significant problem. At public hospitals, pressure on acute bed space creates further challenges which ripple through the system. This pressure is linked to inpatient bed capacity, admissions and discharge policies in acute wards, bed allocation and management and inadequate support and coordination with other levels of care such as discharge planning, rehabilitation, long-term care and home support. Patterns of service are other contributing factors and include high throughput from Accident & Emergency (A&E) services generated by inadequate access to primary and ambulatory care and community services, insufficient care available at other levels of the system and shortages of care for the mentally ill, the disabled and patients in the early stages of chronic illnesses (HA, 2017c).

Ineffective coordination also contributes to long wait times which affect many ambulatory services in the public sector especially Accident & Emergency (A&E) departments. This is due to complex and interrelated factors, some of which are external to A&E departments. The external factors include inpatient bed capacity, admissions and discharge policies in acute wards, bed allocation management and inadequate coordination with other levels of care such as discharges to rehabilitation, long-term care or home support. Others derive from patient care-seeking behaviour and reflect wider problems with patient expectations and behaviours (HA, 2017c). However, it should be noted A&E wait times do not impact emergency or critical cases, as triage level one and two cases, are seen either immediately or within 15 minutes (HA, 2017c).

As with A&E, SOPC wait times are a multifaceted problem. While urgent and semi-urgent cases are prioritised and seen within two and eight weeks respectively (HA, 2018g), wait times for new stable cases vary and can stretch to more than two years (HA, 2018g). For instance, from October 2017 to September 2018, the median waiting time of stable new cases in Orthopaedics & Traumatology SOPCs ranged from 21 (HK West Cluster) to 116 (Kowloon East Cluster) weeks (HA, 2018g). Kowloon East Cluster faced the longest median waiting time in specialties of Ear, Nose, Throat, Medicine, and Orthopaedics & Traumatology (HA, 2018g) (Table 2.1). These long wait times for SOPC services are due in large part to management of follow-up cases and discharge planning for current SOPC patients. Many patients remain in SOPCs despite no longer requiring specialist care. A major factor could be the cost of drugs which is highly subsidised while prescribed drugs are not easily accessible at lower levels of care (FHB, 2008b). In addition, patients are reluctant to be discharged from SOPCs as this would mean joining a very long queue should they need SOPC care again. Some doctors face difficulties discharging patients from SOPCs for these reasons.

TABLE 2.1

Specialty	Shortest median waiting time in weeks (hospital cluster)		Longest median waiting time in weeks (hospital cluster)	
Ear, Nose, Throat	26	(HK West)	78	(Kowloon East)
Eye	13	(Kowloon East)	97	(Kowloon Central)
Gynaecology	24	(Kowloon Central)	62	(NT East)
Medicine	29	(HK East)	94	(Kowloon East)
Orthopaedics & Traumatology	21	(HK West)	116	(Kowloon East)
Paediatrics	9	(HK East & Kowloon East)	31	(NT West)
Psychiatry	16	(Kowloon West)	63	(HK West)
Surgery	20	(Kowloon West)	55	(HK East)

SPECIALTY OUT-PATIENT SERVICES MEDIAN WAITING TIME (WEEKS)
FOR STABLE NEW CASES,
1 OCT 2017 TO 30 SEPTEMBER 2018

Source: HA, 2018g.

Insufficient coordination also plagues the support structures needed to help patients move between levels of care. The lack of transitional support for elderly patients after hospital discharge is another serious problem facing the long-term care system. While hospitals provide discharge plans for elderly patients and for specific groups of patients from rehabilitation and geriatric units, there is no coordinated referral mechanism to ensure community care upon discharge for other patients. This is a telling gap in effective coordination between cure and care sectors.

EOL and palliative care is not particularly well established in the community. Within HA, collaboration between palliative care teams is limited. Access to palliative care is variable and 90 percent of people die in hospitals (R.Y. Chung et al., 2017). Only limited palliative care services are available in ambulatory settings contributing to higher utilisation of hospital services such as A&E and acute admissions. This is often contrary to patient preferences. Gaps and inconsistencies also afflict home palliative care services which are organised in the public sector by separate teams (medical and oncology) (Legislative Council of the Hong Kong SAR, 2017a). Moreover, public specialist palliative care for paediatric patients is currently unavailable and there is limited community support (HA, 2017d).

TABLE 2.2

Healthcare Function	Public		Private		Current health expenditure	
	HKS mil	(%)	HKS mil	(%)	HKS mil	(%)
Curative Care	49,171	(51.2)	46,839	(48.8)	96,010	(100)
• Inpatient curative care	23,770	(58.7)	16,718	(41.3)	40,488	(100)
• Day curative care	6,221	(90.1)	685	(9.9)	6,906	(100)
• Outpatient curative care	18,469	(38.6)	29,432	(61.4)	47,902	(100)
• Home-based curative care	711	(99.5)	4	(0.5)	715	(100)
Rehabilitative Care	7,057	(75.4)	2,298	(24.6)	9,355	(100)
Long-term Care (health)	6,445	(84.8)	1,157	(15.2)	7,601	(100)
Medical Goods	664	(4.9)	13,001	(95.1)	13,665	(100)
Preventive Care	3,685	(92.0)	322	(8.0)	4,007	(100)

EXPENDITURE ON SERVICE PROVISION, PRIVATE VS. PUBLIC SECTORS

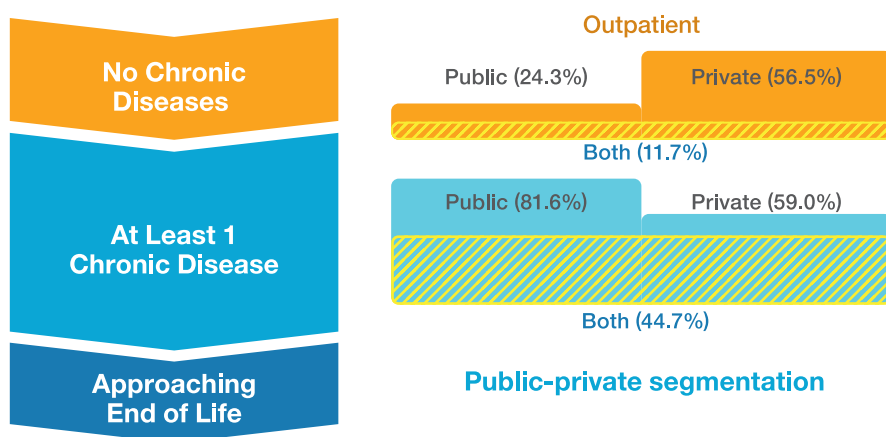
Sources: Hong Kong's Domestic Health Accounts -
Estimate of Domestic Health Expenditure, 1989/90 - 2015/16
(FHB, 2018d).

2.2.2 UNBALANCED AND SEGMENTED PROVISION

Hong Kong's health system is currently weighted toward provision of inpatient curative care, with hospitals dominating the system in terms of both funding and how they are utilised by patients. This imbalance is further exacerbated when we consider the segmentation of service provision and financing between the public and private sectors (**Table 2.2**).

Much as with inpatient care, primary care provision in Hong Kong has historically been oriented toward episodic illness (FHB, 2010b). This is no longer sufficient to meet population needs for continuous and coordinated care to manage chronic conditions. Utilisation patterns of primary care, particularly among elderly patients, further reflect Hong Kong's challenges (FHB, 2008b). For patients without chronic illness, 24.3 percent seek outpatient care in the public sector versus 56.5 percent in the private sector. However, for patients with at least one chronic illness, 81.6 percent seek outpatient care in the public sector compared to 59 percent in the private sector while 44.7 percent seek care in both sectors (**Figure 2.3**) (Yeoh, 2018b).

FIGURE 2.3



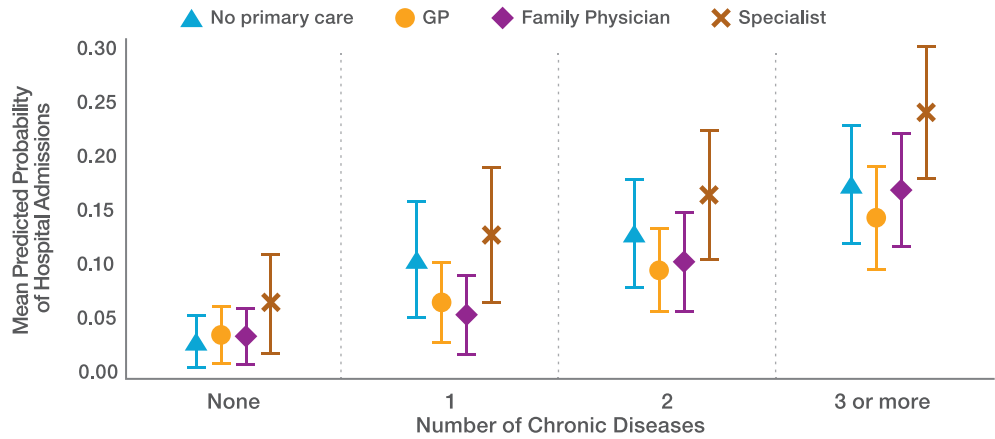
PATTERNS OF SEEKING OUTPATIENT CARE AMONG THE ELDERLY IN HONG KONG

Source: C&SD, 2011; Yeoh, 2018b.

The importance of having a regular primary care doctor such as a general practitioner (GP) or family physician can be clearly illustrated by the relationship between regular source of primary care and hospitalisation. Access to regular care from a GP or family physician can significantly reduce the rate of hospitalisation for patients with multiple chronic illnesses (R.Y. Chung et al., 2016). Moreover, regularly receiving primary care from other types of specialists is associated with even higher rates of hospitalisation compared to those patients without any regular source of primary care at all (Figure 2.4) (R.Y. Chung et al., 2016).

In addition, research indicates patients who mostly receive care from private GPs have better primary care experiences than those who mainly receive care from GOPCs in the public sector. The better care is a result of better accessibility and stronger relationships (S.Y. Wong et al., 2010). Unfortunately, the family doctor model remains underdeveloped in Hong Kong. Many patients in Hong Kong seek care from both GOPCs and private GPs (S.Y. Wong et al., 2010). Moreover, there is low willingness to pay for private sector primary care and preventive services, particularly amongst the elderly population due in part to concerns over affordability of chronic disease management and quality (Liu, Yam, Huang, & Griffiths, 2013). Despite long wait times, and the option to receive better continuous care from a private primary care provider, patients prefer to use public services.

FIGURE 2.4

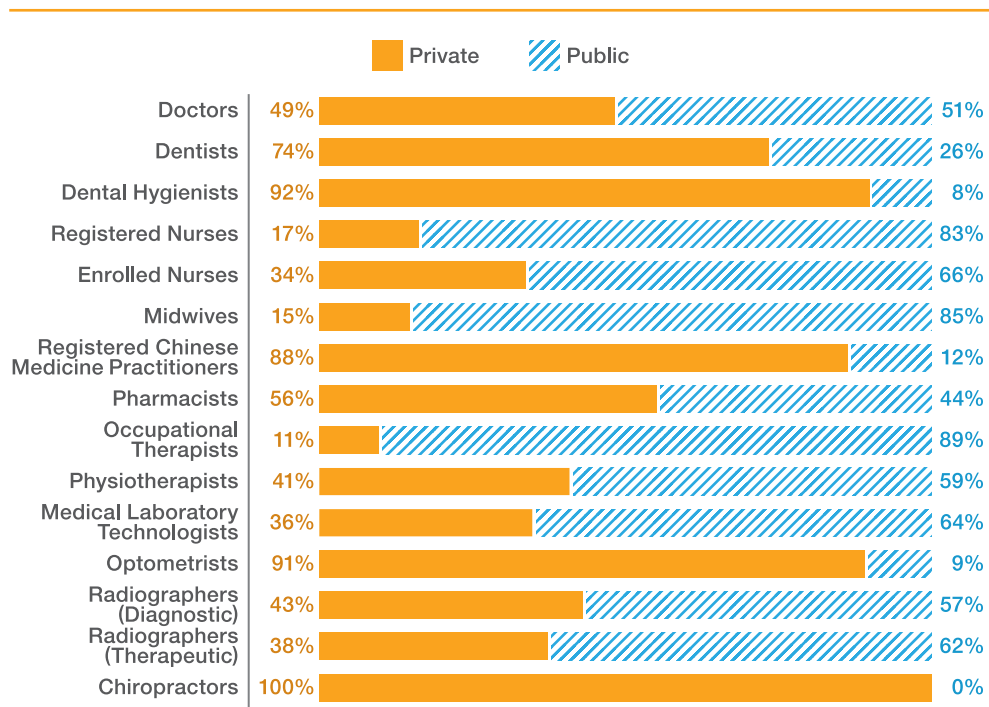


ASSOCIATION BETWEEN PATIENTS WITH CHRONIC DISEASES AND HOSPITALIZATION BY TYPES OF CARE

Source: R.Y. Chung et al., 2016.

FHB Report of the Strategic Review on Healthcare Manpower Planning and Professional Development reported a projected shortfall of 1,007 doctors and 1,669 nurses by 2030, if Hong Kong maintains its current level of service (FHB, 2017b). To alleviate this manpower shortage, HA has raised the retirement age of new recruits from 60 to 65 years and rehired retired healthcare professionals through the Special Retired and Rehire Scheme (SRRS). SRRS rehired a total of 63 doctors, 48 nurses, nine allied health professionals and 884 healthcare support staff in 2015/16 and 2016/17. HA also added medical training places. For instance, in 2018/19, 420 medical graduates will complete internship training, an increase of 100 from the 320 graduates in 2017/18. HA has also employed non-locally trained workers, although as at July 2017, only 17 non-locally trained doctors with limited registration were employed by HA (Government of the Hong Kong SAR, 2017c). In a bid to further alleviate manpower shortage, a comprehensive plan with short-term, medium-term and long-term goals is required.

FIGURE 2.5



HEALTHCARE PROFESSIONALS BY SECTOR

Source: FHB, 2017b.

Any comprehensive plan must consider the balance between the public and private sectors. While 83 percent of registered nurses and 66 percent of enrolled nurses work in the public sector (**Figure 2.5**), the FHB manpower review noted that private medical doctors have unused capacity which could potentially be tapped into to enhance overall system efficiency.

2.2.3 INADEQUATE MEDICAL-SOCIAL COLLABORATION AND COMMUNITY CARE

Just as important as expanding and redistributing the workforce is building support and resources within communities. Increasing availability of resources for long-term and EOL care in the community by enabling patients, volunteers, and families to take on more responsibility can help reduce hospitalisation and emergency admissions while providing more holistic care (The Economist Intelligence Unit, 2015). Hong Kong’s elderly dependency ratio, the number of elderly persons per 1000 working-age persons, is projected to increase from 231 in 2016 to 674 in 2066 (C&SD, 2017b). In this context, demand for long-term care and EOL services will likely rise considerably. Nearly all Hong Kong patients receive EOL care and pass away in hospital settings, with the rates significantly higher than other developed countries (Wang & Chan, 2015). Not only does this run counter to the wishes of patients and their families but it contributes to unnecessary and high cost care through hospital stays. To provide patients with high-quality, continuous, coordinated long-term and EOL care, greater collaboration between health and social sectors to provide enhanced community services is needed.

Challenges include limited options for community care and the proliferation of residential care services, which “undermine[s] the Government’s pledged principle of community of care” (E.W.T. Chui, 2011). In Hong Kong, the institutionalisation rate for elderly people is significantly higher than other places, such as Singapore and Taiwan (Sau Po Center on Ageing, 2011). This is further exacerbated by challenges people face in accessing community care services that are affordable and that meet their needs. The cost of labour required to provide community services, particularly in the context of affordability for those who require such services, has discouraged the entrance of private operators into the provision of community care. The private market is at best underdeveloped and at worst “virtually non-existent” (E.W.T. Chui, 2011). The outcome is that the majority of providers are NGOs which receive subsidies from the Government (E.W.T. Chui, 2011).

Unsatisfactory service quality in privately-run residential care homes remains a persistent problem, with many homes barely meeting minimum government standards. Approximately 80 percent of elderly residents in these private homes are in receipt of public assistance and pay lower fees, which encourage home operators to cut costs, including by hiring poorly trained and poorly paid staff (E.W.T. Chui, 2011). This is further complicated by inadequate post-discharge services to bridge hospital and home care, and inadequate medical support in residential care homes (E.W.T. Chui, 2011).

Addressing these challenges requires commitment to the principle of “ageing in place,” and greater promotion and provision of both private and public community services so people may remain at home (E.W.T. Chui, 2011). Providing sufficient post-discharge support for elderly patients and their families can keep people in the community, helping to reduce or delay institutionalisation, improve physical function and slow decline in cognitive functioning. **“Social workers, medical professionals, and community care providers should seek better coordination in designing a viable and effective discharge plan that ensures the provision of community and home care services upon discharge” (E.W.T. Chui, 2011).** It is vital that programmes like the Integrated Discharge Support Programme for Elderly Patients (IDSP) be in place and regularised. Collaboration and co-ordination in physical and mental rehabilitation programmes provided by the health and social sectors also needs to be enhanced.

2.2.4 CONCLUSION

Hong Kong citizens enjoy long and relatively healthy lives. This is due in large part to Hong Kong’s health system, which is efficient and provides universal access to public services at an overall low cost for its population. The ability of our present health system to react to and overcome current and future challenges in a sustainable manner is limited by consistently identified barriers including fragmentation, unbalanced provision and inadequate medical-social collaboration. To move forwards, our healthcare system needs to adapt to meet these challenges. Mapping a path forward is critical, as reforming the health system will require complex interventions targeting different interacting components, including service delivery, policy levers, and stakeholders. Further exploration on how to build momentum for collective improvements and alignments to bring about sustainable and effective system strengthening is crucial.



Chapter 3

Health System
Voices -
Who we are

We next present a range of interviews with key stakeholders in Hong Kong's health system to complement the previous chapter's analysis and synthesis of evidence from local and international best practices. The collective wisdom accrued through daily work and life experience shared by high-level policymakers frontline clinicians, social workers, non-governmental organisation (NGO) advocates and patients are an invaluable resource for envisioning transformative change to our health system. The interviews provide context and understanding of the challenges facing Hong Kong's health system as well as potential remedies to tackle identified challenges. The interviews focused on core concerns of Hong Kong's health system, its current dilemmas, actions to address these issues, and whether it is fit for purpose in the 21st century.

3.1 THE INTERVIEWS

Interviewees across a wide spectrum were identified, including representatives from government departments, NGOs, professional organisations, private institutions and those involved in health financing and provision engaged in health and social care (**Table 3.1**). Importantly, views and input from patients and patient groups were also solicited. Our broad findings fall into three main themes which are further subdivided into specific challenges and summarised (**Table 3.2**).

Stakeholder insights are presented throughout this chapter in their own words to compliment our elaborative analysis. Interviews focused on governance, primary care, specialist and hospital care, social care, health financing and the role of patients and the wider community in healthcare. All interviewees were queried on their general views of the local health system while more specific questions were tailored to fit their background and specific expertise.

Thirty-seven stakeholders from 18 institutions as well as 15 patients spread across two focus-group sessions sat for interviews between May and September 2018. Our face-to-face interviews were open ended and conducted in English, with the exception of caregiver and patient-focus groups which were delivered in Cantonese, over 60-to-120-minute sessions. Snowball sampling was utilised by having participants enlist colleagues and newly identified key stakeholders to provide views. End-user views were obtained through focus groups consisting of caregivers, chronic condition patients and people with disabilities.

TABLE 3.1

BUPA (ASIA) LIMITED
DEPARTMENT OF HEALTH, THE GOVERNMENT OF THE HKSAR
FOOD AND HEALTH BUREAU, THE GOVERNMENT OF THE HKSAR
GLENEAGLES HONG KONG HOSPITAL
HAVEN OF HOPE CHRISTIAN SERVICE
HEALTH IN ACTION
HONG KONG ACADEMY OF MEDICINE
HONG KONG ALLIANCE OF PATIENTS' ORGANIZATIONS LIMITED
HONG KONG COLLEGE OF FAMILY PHYSICIANS
HOSPITAL AUTHORITY
LABOUR AND WELFARE BUREAU, THE GOVERNMENT OF THE HKSAR
SOCIAL WELFARE DEPARTMENT, THE GOVERNMENT OF THE HKSAR
SOCIETY FOR COMMUNITY ORGANIZATION
THE CHINESE UNIVERSITY OF HONG KONG
THE HONG KONG MEDICAL ASSOCIATION
THE HONG KONG PRIVATE HOSPITALS ASSOCIATION
THE HONG KONG SOCIETY FOR REHABILITATION ¹
THE UNIVERSITY OF HONG KONG

AFFILIATIONS² OF STAKEHOLDERS WE HAVE ENGAGED IN OUR RESEARCH

Notes: (1) The Hong Kong Society for Rehabilitation also facilitated the recruitment of patients / caregivers and venue arrangement for the focus group interview sessions.
 (2) The institutions are listed in alphabetic order.

TABLE 3.2

Theme 1. Care delivery is not keeping pace with changing needs	
Subtheme 1.1	Demand patterns are changing with an ageing population and increase in chronic diseases placing greater pressure on resources.
Subtheme 1.2	Care organised around clinical specialties and diseases do not fully meet patient needs.
Subtheme 1.3	Care delivery remains fragmented making access difficult, especially for those with chronic illness.
Subtheme 1.4	Service delivery imbalances make it harder for patients to access integrated, affordable care.
Subtheme 1.5	Key health worker shortages exacerbate long wait times, and heavy workloads lead to a brain drain to the private sector, further complicating case management.
Theme 2. The model of care needs to change	
Subtheme 2.1	User-friendly, 'in the neighborhood' services are needed to support patients to receive care in the community.
Subtheme 2.2	Capacity for transformation is eroded by unaddressed pressures in both the public and private sectors.
Subtheme 2.3	The health workforce needs the right skill mix and distribution to support a primary care-led person-centred health system.
Subtheme 2.4	We need more effective mechanisms to facilitate medical-social integration and collaboration.
Theme 3. Health system governance	
Subtheme 3.1	Using health financing functions as an effective tool for system change.
Subtheme 3.2	Increasing opportunities for patients to be involved in policymaking.
Subtheme 3.3	Aligning strategic planning with resource allocation and financial incentives and maintaining political will to follow through.

THEMES

3.2 INSIGHTS BY THEMES

3.2.1 THEME 1: CARE DELIVERY IS NOT KEEPING PACE WITH CHANGING NEEDS

Subtheme 1.1 - Patterns of demand and service utilisation are changing. This shift is particularly evident in the hospital sector where the overall usage of hospital beds is changing. Advances in diagnostic and therapeutic procedures such as minimally invasive surgery reduces the need for post-operation hospitalisation. Offsetting this trend is a countervailing demand for inpatient beds for multimorbidity and disabilities from non-communicable diseases (NCDs). The present health system is tooled toward supply-driven inpatient care but a lack of ambulatory services remains. Pressure on hospital capacity is most acute during peak periods such as influenza season, escalating demand on hospital care.

Stakeholder Voices:

“

...beds are increasingly occupied by patients who are higher risk, co-morbid... but with an ageing population the situation [is] difficult... beds occupied more and more by elderly patients or sick patients.

- *Private service provider*

”

“

[We] know that [the] system is unsustainable if [we] keep focus[ing] on hospital care, [we are] aware of pressure on the HA.

- *Policymaker*

”

Subtheme 1.2 - The health system is not aligned to the changing needs of the population.

Our present system is oriented around medical specialisation and disease-focused care. We need to reorient toward long-term management of chronic conditions, primary care, and greater participation of multidisciplinary health teams and general practitioners (GPs).

Stakeholder Voices:

“

The current system is too medicalised, disease oriented, over-specialised. Especially for the elderly who may not need active treatment. [We] need to reorient towards generalists – GPs.

- *Academic*

”

“

In Hong Kong, the primary care model for [non-communicable diseases] needs development. Primary care physicians lack capability to manage chronic disease, [and] family medicine colleges [are] not sufficient. There is not enough gatekeeping... [We need] to build up capacity and incentives for continuing education and development of skills, particularly since multimorbidity requires multiple skills to manage.

- *Public service provider*

”

“

The services provided are fragmented due to overspecialisation. [Using] Department of Orthopaedics and Traumatology [in public hospitals] as an example, patients have to consult more than one doctor, as doctors are specialised to treat only one part of patient's body, such as legs or arms.

- *Patient*

”

“

We need more community resources to support us such as [a] social worker, rehab organisation and community nurses who can provide out-reach services.

- Patient

”

A medical-first orientation comes at the expense of social and community-based-care resources needed for holistic care. Key stakeholders cited the inappropriate hospitalisation of many elderly people due to inadequate community-based and social resources.

Stakeholder Voices:

“

Is the elderly problem a healthcare problem or a social problem? [It is] social... inadequate social care... Not a lot of collaboration between sectors.

- Private service provider

”

Subtheme 1.3 - The current health system is fragmented. Service fragmentation was raised repeatedly as a major barrier to progress. Significant gaps remain among existing mechanisms to efficiently utilise resources and integrate services sectors towards a primary care-led system. Inadequate coordination of care is problematic because the Hospital Authority's (HA) internal mechanisms which coordinate secondary and tertiary care have not been scaled up or effectively extended to private sector primary and social care. There is scope for consolidation of existing programmes (e.g. across public sector primary care programmes operated by government), and for closer medical-social collaboration both within the public sector and between the public sector, NGOs and the private sector – particularly in delivering long-term care and discharge planning.

Stakeholder Voices:

“

[We] connect to the hospital... to nurses or doctors to develop some kind of relationship. Difficult to have a long-term connection... No regular communication platform between the community and the hospital. Situation different in different clusters.

- NGO representative

”

Current cross-sector and cross-department collaboration mechanisms are insufficient and overly reliant on ad-hoc arrangements and informal networks. Interviewees highlighted fragmentation issues such as an inadequacy of current systems for referral and discharge, and electronic health record systems (EHR) shortcomings. Stakeholders emphasised a pressing need to fill in gaps to facilitate and enhance the timely transfer of patients from hospitals to the social and community sector. The current arrangement is overly reliant on a limited number of programmes and informal and personal networks between healthcare providers.

The responsible sharing of EHR is a key facilitator in the integration and coordination of care. A territory-wide EHR sharing system (eHRSS) is in operation, however NGOs and private sector stakeholders encounter difficulties in effectively utilising the EHR system. Cross-referrals between services and data input and access are limited in the current top-down system which also inhibit patient transfer between care streams. Meaningful collaboration and integration is further complicated by differing service, standards, risk appetite, backup support, quality, sustainability and financial considerations between providers in the public, not-for-profit and private sectors.

Stakeholder Voices:

“

The Government needs to take leadership in encouraging cross-bureau collaboration...

- *NGO representative*

”

“

There is not a system to coordinate care, like there is within the HA for secondary and tertiary care. There are issues of sustainability [and] over reliance on public hospitals for care.

- *Policymaker*

”

“

Now the information flow is uni-directional, feeding from hospitals to community. We suggest two-way information flows through [an] electronic health records system.

- *NGO representative*

”

Adding to Hong Kong's health system fragmentation is a lack of gatekeeping by primary care physicians within the private primary care market which results in patients inappropriately accessing specialist and acute services. Interviewees identified duplication, misuse and overuse as issues resulting from the high numbers of cross-referrals.

Subtheme 1.4 - Service delivery is imbalanced. The Government piloted several schemes to redistribute demand, particularly by subsidising patients to receive services in the private sector via Public-Private Partnership (PPP). Over the course of implementation a number of issues with service delivery across sectors and in the design of PPP programmes were identified, and imbalances remain a problem between the public and private sectors. Presently, the majority of inpatient care is provided by public hospitals while the majority of outpatient care is provided privately. While the proportion of physicians staffing public and private hospitals are roughly equal, the workload of public hospitals remains much heavier.

Stakeholder Voices:

“

90 percent of inpatient care [is] in public hospitals. 10 percent of outpatient care [is] in [the] public sector. Half of doctors are in [the] public sector, and half in private. Private doctors see around two to three cases per day. Money is what creates this big difference.

- *Private service provider*

”

“

One family doctor is better in terms of follow-up as the doctor is more familiar with your health record and better at prescribing medicine.

- *Patient*

”

Subtheme 1.5 - The health workforce is facing rising challenges. The current composition and structure of the city's health workforce are beset by staffing shortages, mismatched skills and uneven professional governance. Newly defined roles for general nurses and nursing specialists and more involvement of allied health professionals including community pharmacists were raised in interviews. New investments in health workforce infrastructure touching on training, education, career pathways, and continuing education were identified. Problematic aspects of professional governance, particularly the dominance of doctors in the healthcare market and protectionist aspects within the workforce, were also raised. The impact of staff shortages on service delivery and health system governance was emphasised by stakeholders who noted some NGO services were being terminated due to lack of staff. Manpower constraints remain a key concern in how to further develop primary care services.

Stakeholder Voices:

“

Within the community [we] cannot hire enough occupational therapists or physical therapists, [we] have to close down services because not enough professionals are available.

- *NGO representative*

”

“

[We need a] trained workforce, not only doctors, but including nurses and allied health [professionals].

- *Policy maker*

”

“

Wait times are poor, linked also to the manpower problem.

- *Policy maker*

”

“

If [we] want people to be served in the community, is there enough service available there to be treated? This is also a manpower issue.

- *Policy maker*

”

“

In the course of developing [the District Healthcare] model one of the biggest challenges is manpower constraints.

- *Policy maker*

”

“

Doctors are under high stress, emotional sometimes. Too many doctors trained [in Hong Kong] go to the private sector. The Government should provide better salary and career prospect for doctors in order to retain them in the public sector.

- *Patient*

”

“

We can rely more on pharmacists while trying/ changing medicine. This will be cheaper and nursing specialists in acute hospitals will lower the workload of doctors by using general nurses for health checks.

- *Patient*

”

3.2.2 THEME 2: THE MODEL OF CARE MUST CHANGE

Subtheme 2.1 - Advances in biomedical, diagnostic and information communications technology, and new service models and organisation enables services to be more accessible in the community. Development of minimally invasive surgery means patients can receive treatment in ambulatory settings and need not be admitted into hospitals, lessening demand on beds. Primary care is the foundation for a new model of care which emphasises care within the community. The Government promotes PPPs and other pilot programmes, including District Health Centres (DHCs) and Community Health Centres (CHCs), to advance primary care in Hong Kong. Many key stakeholders believe DHCs should aim for prevention, rehabilitation, and treatment to reduce the need for hospitalisation. Allied health workers were perceived by stakeholders as important to DHC efforts. The Government also undertook programmes such as the Patient Empowerment Programme (PEP) to help empower patients and introduce concepts, skills, and support for self-management. Current efforts on this front were inadequate according to stakeholders who cited short-term duration, limited impact, and the lack of inclusion of communities and families of existing initiatives.

Stakeholder Voices:

“

A total of 12 hours PEP programme is not enough to make long-term changes to patients.. Many patients would like to continue even if the programme has finished. It would be good to expand the empowerment to the community.

- *NGO representative*

”

New modes and teams of community service delivery were identified by interviewees. Some providers are experimenting with new interventions including end-of-life (EOL) community care, telehealth and information support to provide better community care and reduce the need for hospitalisation. The development of these new modes and services are needed to shift care from the present hospital-centric model towards alternatives better oriented to the population's changing needs.

Stakeholder Voices:

“

[We need to] create a therapeutic community, not a medically-dominated model.. [We could consider] end-of-life vouchers, GP visits at home [to] reduce admissions even if people still die at hospital. More home help support.

- *Academic*

”

“

The Government is focusing on primary care. Not trying to build an NHS, but instead focusing on DHCs.

- *Policymaker*

”

“

Think of the DHC as a hub, not a clinic. [There is a need] to work out the interface with [other parties].

- *Policymaker*

”

“

... Issue of where to see doctor? Is there a need to see a doctor? In some cases; unnecessary. Can solve (health) issue with community pharmacist/ nurse.

- *NGO representative*

”

Stakeholders want a strong ideological commitment and greater support for new models of care from the Government. Interviewees are keen on new models of service delivery, particularly community care with considerations for NGOs roles. Greater patient understanding and service trust would develop after receiving official sanction.

Subtheme 2.2 - The need to change the model of care, ensure services are appropriately organised to maximise capacity for transformation, and address the imbalance in service provision between the public and private sectors was raised repeatedly in interviews.

Care models need to incentivise prevention and the shift to a primary care model better able to cope with challenges posed by an ageing population and chronic illnesses. The public sector is in broad agreement that a shift to a primary care model is required, but the health system faces immediate needs and priorities which preclude transformation. The public sector lacks the spare capacity needed to undertake reforms. Key stakeholders felt achieving this shift will require new mechanisms to support better prevention and management of care in the community. Such mechanisms include new networks between private GPs and public or not-for-profit service providers, new provider-insurer relationships and community engagement among others. This is closely tied to the role of the community in supporting health maintenance and the need to empower patients to take ownership of their own health. Encouraging and supporting self-care, peer support, and empowering families and societies via training and support for carers are essential in managing chronic illness. This shift helps people better manage their own health and is also part of a wider transformation in ideas about health and the health system that emphasises the centrality of the patient and community in maintaining health.

Stakeholder Voices:

“

We know the importance of primary care.

- *NGO representative*

”

“ In Hong Kong, the primary care model for non-communicable diseases needs development.
- *Public service provider* ”

“ In Hong Kong, most GPs are not taking care [of] chronic diseases. Why?
- *NGO representative* ”

“ For patients, we hope that [they] understand they should not rely on healthcare service providers. Instead, they need self-care management... We should not seek help from healthcare professions passively... Peer support groups are essential... Patients need to accept the patient role and the fact that chronic disease cannot be cured. Family and social relationships play key roles to foster this attitude. Some patients get through the journey and become service providers from service users.
- *NGO representative* ”

“ Health is a partnership. Therefore patient empowerment is important... Need to improve health literacy [of the public] and change culture so that people don't just rely on doctors.
- *NGO representative* ”

“ [The] role of the community is important [in health maintenance] – need to engage NGOs, district councils and district patient groups.
- *NGO representative* ”

Subtheme 2.3 - Stakeholders noted the need for development and investment in building the right workforce for the 21st century and reducing workforce shortages. The shortfall is most acute in the public sector where there is need for doctors, nurses, allied health professionals and public health practitioners. At the same time, interviewees emphasised new measures to retain talent in the public sector. Staff attrition is particularly pronounced within HA which often loses senior specialist, training, and supervisory staff to the private sector. Interviewees also stressed the importance of public sector care by allied health professionals, including medical social workers, and that it should be accessible outside of hospitals settings. Stakeholders also emphasised the role of and space for multidisciplinary teams and for allied health workers to provide many kinds of care, supporting people to maintain not only their health but their quality of life. More staff and training is needed to fill community and social care roles such as elderly care assistants, community health workers and carers while reposition this work as a high-value occupation. A new commitment to create new career paths for community and social care workers is required and includes adequate pay, training, support, infrastructure and defined career milestones.

Stakeholder Voices:

“

Speech therapists help people to maintain [their] dignity. Yet, most of them provide service at hospitals.

- *NGO representative*

”

“

[We need to] train elderly health assistants. At present [it's] not a valued occupation. Many elderly care assistants are themselves elderly. No career ladder, hard work, low social value, low pay.

- *Private service provider*

”

“

... Geriatrics needs development. Multi-disciplinary care [training] should start from undergrad. Right now trainees don't understand the practice and role of other professionals (i.e. allied health) and how to help patients with housing, finances, etc.

- *Professional organisation*

”

“

[We need] family doctors to partner with allied health professionals, such as physiotherapist[s] for better health outcomes and more efficient health service... Consider developing primary care networks.

- *NGO representative*

”

Many stakeholders highlighted the need for Hong Kong to develop a strong primary care workforce. Primary care doctors will need competencies in family medicine, primary care practice, preventive medicine and chronic disease and disability management to enable patients to receive care in the community while preventing hospitalisation. The current training of Hong Kong's GPs is inadequate according to interviewees, who highlighted overspecialisation and cross-referrals. The transformation of family medicine into a high-value practice able to attract medical students and inspire confidence among the public is needed. However, stakeholders acknowledged likely resistance to undergoing specialist training in family medicine or other related programmes.

Stakeholder Voices:

“

[This] means the patient can receive primary care in the community... [and have] trust and confidence in these practitioners to look after the whole family.

- *Private service provider*

”

“

Medical students may not have made their minds up to do family medicine, but probably if the Government or society can motivate, encourage, promote the importance of primary care doctors, then could stimulate doctors to take up family medicine.

- *Private service provider*

”

“

Training in medical schools does not prepare people how to be a GP... Medical school does not have a primary care focus and this is a huge problem. [Current GPs] lack skills and competencies for primary care. Generates high referrals.

- *Private service provider*

”

“

... Family medicine colleges not sufficient, there is not enough gatekeeping... need to build up capacity and incentives for continuing education and development of skills. Particularly since multimorbidity requires multiple skills to manage.

- *Public service provider*

”

“

In considering the primary health model... manpower is important. Doctors... not only more students graduated, but in the right streams.

- *Policymaker*

”

“

Many doctors in the public system say there are too many cross-referrals, because they are too specialised. Any good doctors should be able to manage minor complaints but instead they cross refer and the problem doesn't require a specialist consultation. Too much defensive medicine.

- *Policymaker*

”

“

[We] know that [we] need to train the right type of doctors for the new model. But don't know which specialties are the right ones and different doctors have different opinions and views. Can train up family doctors or even come up with a new curriculum. However, family doctors may not be keen on getting special knowledge through receiving extra training in geriatrics, palliative care, care for multimorbid patients.

- *Policymaker*

”

Subtheme 2.4 - Insufficient mechanisms exist to enable effective medical-social collaboration. Stakeholders identified strong medical-social collaboration as central to the development of primary care-led person-centred systems. Interviewees identified a number of factors to strengthen collaboration within Hong Kong based on their experience and existing practices, including common goals, shared indicators, and facilitating strong relationships between health workers across all sectors. Stakeholders also noted doctor training did not emphasise social aspects of care and allied health collaboration across sectors.

Stakeholder Voices:

“ We believe the development of primary care requires medical-social collaboration.
- *NGO representative* ”

“ [We] Hope that the medical sector can acknowledge social care professionals’ ability to provide quality care services and their impacts on patients and the community.
- *NGO representative* ”

“ [There is] room for closer medical-social collaboration in terms of flow between nursing homes and RCHes to hospitals, strengthen medical support for RCHes and nursing homes, and improve training for carers.
- *Policy maker* ”

“ Donors in Hong Kong should understand the importance of medical-social collaboration and primary care.
- *NGO representative* ”

“ [The] health sector alone is ineffective. [We] need to work with other sectors to have health in all policies.
- *Policy maker* ”

“ Medical and social – [separated] into two bureaus.. Need better coordination between them and to be clear about how to integrate both.
- *Public service provider* ”

“

We have to improve physical conditions before integrating back into the community, We need rehab organisation and volunteer organisation to help.

- Patient

”

3.2.3 THEME 3: HEALTH SYSTEM GOVERNANCE

Subtheme 3.1 - Healthcare financing, funding and payment mechanisms were highlighted by stakeholders as a **critical tool to facilitate system reorientation and address a number of barriers**. Financing dictates access, service delivery balance and the pace of integration or fragmentation. Private sector fee structures were suggested by some stakeholders as a mechanism to help reorient Hong Kong's health system, particularly as a counter to pharmaceuticals sale incentives.

Stakeholder Voices:

“

If [doctors] could have an assured level of income via a fee schedule [they] might be able to pull away from the drug subsidy.. also a positive because at the moment primary care doctors are responsible for any errors in dispensing if they occur at their clinic.

- Private service provider

”

“

Use the funding model to incentivise change [would] help develop more community-based services. Earmark funds for desired outcomes, for example [to help] the elderly to stay at home.

- Academic

”

“

Coupons, PPPs and so on all encourage activity and sick care rather than healthcare, [and there is] very little activity incentivising prevention.

- Public service provider

”

“

There's a huge difference between public and private in [medical cost and expenses].. Public HKD100 for new cases, HKD80 for old cases.. Private HKD1,000 per attendance excluding medicine plus HKD1,000 per drug for two weeks..

- Patient

”

Health insurance holds the potential to address some health system challenges, but the present insurance market remains dominated by a “pay and claim” model which is outdated for integrated care and continues to incentivise fee for service payments. The focus must shift towards developing new models of contracting and provider-insurer relationships to promote higher quality care while driving the health system towards greater integration, efficiency, and cost-effectiveness. Greater accountability should be placed on insurers to promote consumer use of medical insurance rather than defaulting to the public sector.

Stakeholder Voices:

“

[The] insurance model [is a] pay and claim model. Outdated for the modern practice of integrated care... At the moment, work in network is low, remains pay and claim. [This] reinforces the fee for service model.

- *Private service provider*

”

“

People [are] worried to use the health insurance they have because there is so little consumer protection so then they go back to the HA.

- *Private service provider*

”

Subtheme 3.2 - Governance of the health system is largely undertaken by the Government and professional associations, with limited opportunities for others to be involved.

Stakeholder Voices:

“

There are not many opportunities for patients to be involved in health policymaking, although we are seeing some progress. It is important to have patients' voices in health policy as we are the users who know what should [sic] be good health services.

- *NGO representative*

”

“

There needs to be a societal leader, an NGO leader to take lead in pushing for primary care and health equity.

- *NGO representative*

”

Subtheme 3.3 - Resource allocation, priority setting, and commitment remain challenges facing Hong Kong's health system. Key stakeholders identified a lack of clarity in overall positioning and ideological aims. This lack of focus has a knock-on effect on planning and resource allocation. A perceived need for greater commitment and leadership to tackle hard problems facing the system was raised by many stakeholders who pointed to insufficient political will while a not-in-my-backyard (NIMBY) mentality, especially at the District Council level, remains a significant problem. The issue of resource allocation particularly in the public sector is pressing with hospital-based care heavily incentivised.

Stakeholder Voices:

“ [It's a] problem of the public system because there is no clear positioning on what the Government is doing... If public healthcare is seen as social welfare the amount of funding is too little. But, if it is seen as a safety net then we may be paying too much and providing too much service. This is the fundamental problem.
- *Private service provider* ”

“ Not in my backyard-ism, especially around elderly homes, mental health clinics, concern over sirens, hospital transport, etc... A lot arises from local district council elections and/ or council board members [who] mobilise people to oppose.
- *Academia* ”

“ What is the policy or vision directing the development for primary care? Without a policy [there is] a problem. Without leadership [there is] no forward planning, inconsistent resources, inadequate development and allocation of human resources for health.
- *NGO representative* ”

“ Primary care has always been important but need real government commitment to make this happen... unless the Government [is] serious in investing in primary care... need a financing model to take it forward.
- *Policymaker* ”

“ This 17 percent [Hong Kong's annual healthcare spending] could be used to subsidise outpatients to get healthcare from the private sector. In terms of the HA, get rid of the high bed numbers which create unnecessary admissions.
- *Private service provider* ”

Stakeholders also queried if the Government's health bodies were structured to meet emerging challenges. Interviewees questioned if the Food and Health Bureau (FHB) and the Department of Health (DH) should be restructured and whether a "Primary Care Authority" should be created. An over-reliance on informal relationships between providers, particularly in community-based care, was raised by many key stakeholders as a significant problem. At the governmental level, interactions with NGOs in service provision was seen as problematic. Stakeholders emphasised the need for more robust mechanisms to encourage interaction between NGOs and the Government for policy formation. Further engagement was also cited for quality assurance and accreditation to establish closer links between NGOs and the Government while aligning priorities and standards.

Stakeholder Voices:

“

Government at arm's length, rely on NGOs who are good and devoted, but not a formal part of the system. This is a problem. [We] need a formal government structure at the policy level. [Now there's] no actual power to get things done.

- *Private service provider*

”

“

[The] Government needs a mechanism to interact with NGOs and engage them so that the Government is not always reinventing the wheel... accreditation a possible... accredit legitimate [and] reliable service providers to enhance trust on the part of the public, on the part of GPs.

- *NGO representative*

”

The issue of standardisation, and the lack of effective mechanisms to determine and set priorities and ensure accountability were noted by stakeholders as significant governance challenges. The standardisation of care via clinical pathways, package pricing, key performance indicators (KPIs) and clinical indicators is not consistently applied throughout the health system. Some stakeholders questioned whether KPIs were correctly calibrated for measuring and achieving greater integration and medical-social collaboration. Interviewees also questioned priorities and focus within the public system, observing Hong Kong lacked consistent targets, appropriate goal posts and priority-setting mechanisms such as health technology assessment (HTA).

Finally, respondents said more annual expenditure should be devoted to address imbalance between the public, private and not-for-profit sectors while reducing unnecessary hospital admissions.

Stakeholder Voices:

“

[There is] no HTA body. [It would be] good for Hong Kong to get some kind of HTA – a FDA or NICE equivalent... currently a free for all around clinical decision making around medical devices. There is presently the HA Drug list, the MDCO [Medical Device Control Office] under the DH [for regulatory purpose], but these are insufficient. If the Government wanted a major reform, establishing a HTA body would help lead to change around the sustainability of the system.

- *Private service provider*

”

“

KPIs [are] chosen according to a medical model. Need to move towards a more social model... Importance of choosing the right sets of KPIs... some may not be sensitive in the short term.

- *NGO representative*

”

“

[The] challenge always there and will be there, but [we] need leadership in the Bureau and professional leadership from DH to support the work to be done.

- *Policy maker*

”

“

Getting priorities right is a major challenge.

- *Policy maker*

”

3.3 SUMMARY

Interviewees agreed the local health system needs transformation. Demographic and epidemiological transitions are external challenges to the health system necessitating a retooling of the structure, design and functions of the components which make up our health system to transform into a fit-for-purpose framework for the 21st century. The fragmented nature of service delivery and inadequate coordination across sectors must be addressed in order to deliver continuous care which meets population needs throughout the life course. In particular, care models must shift from the provision of acute, episodic hospital-centric care towards a primary care-led integrated person-centred system embedded in the community. Transformation begins with improvements in medical and social integration, better coordination between levels of care, and placing people and the community at the centre of care. Key stakeholders also emphasised the need to effectively train, retain and fortify staff for the increasingly complex needs of an ageing population. The formation of multidisciplinary care teams, involvement of allied health professionals, and the development of a strong primary care workforce with doctors trained in primary care practice are essential. Government leadership remains the keystone in moving our health system forward. Clearer targets and directions on priorities, governance, financing, regulation and accountability were all cited as essential aspects for the Government's consideration to demonstrate a full commitment to transforming our health system into one that is fit for purpose in the 21st century.



Chapter 4

Reorganising
Service Delivery -
What changes
are needed

How health services are delivered has a direct effect on health outcomes (**Figure 4.1**). Hong Kong's current health system has several health service organisational barriers to care, limiting its overall ability to respond dynamically and sustainably to population health needs. These barriers include fragmentation, segmentation, imbalanced investment, and inadequate medical-social collaboration (for further details, please refer to Chapter 2). Other challenges include ineffective coordination, insufficient information sharing, unclear and complex service boundaries as well as gaps and overlaps in health and social care services contributing to long waiting times (Audit Commission of the Hong Kong SAR, 2014b; E. Chui et al., 2015; Sau Po Center on Ageing, 2011; The Jockey Club School of Public Health and Primary Care [JCSPHPC], 2017). These challenges centre around the inadequate integration of services, and inadequacies and discontinuities in needs-matched care. Changing how services are delivered in Hong Kong will be critical in ensuring that the health system will be fit for purpose to tackle 21st century challenges.

FIGURE 4.1



**LINKAGE BETWEEN HEALTH SYSTEM DOMAINS
AND HEALTH SERVICES DELIVERY**

Sources: Tello & Barbazza, 2015; World Health Organisation Regional Office for Europe (WHO/Europe), 2016b.

4.1 HEALTH SERVICES DELIVERY

Health services delivery is comprised of different types of care, settings where care is provided, health professionals and workforce of care, and the organisation and management of care (**Figure 4.2**). Types of care range from health promotion and disease prevention to treatment, disease management, rehabilitation and palliative care. Service delivery settings have a significant impact on how services are delivered, and where the different types and levels of care (for example, primary care delivered in outpatient settings, and secondary care in inpatient and ambulatory settings) are provided. Various organisational and management processes contribute to the performance, outcomes and health impacts of health services delivery. These include how services are selected, how care is designed, managed, organised and coordinated for integrated care, and performance and quality monitoring (Tello & Barbazza, 2015). A diverse spectrum of health professionals ranging from specialists and general practitioners (GPs) to nursing and allied health professionals and administrative staff provide different types of health care in different settings, shaping how services are delivered (WHO/Europe, 2016b).

FIGURE 4.2

What?	Where?	Who?	How?
Type of care	Settings	Health workforce	Processes
Health protection Health promotion Disease prevention Diagnosis Treatment Management Long-term care Rehabilitation Palliative care	Ambulatory Community Home In-patient Residential	Allied health Professional Family provider General practitioner Informal caregiver Pharmacist Physician Manager Nurse Etc.	Selecting services Designing care Organising providers Managing delivery Improving performance

DIMENSIONS OF HEALTH SERVICES DELIVERY

Sources: Tello & Barbazza, 2015; WHO/Europe, 2016b.

4.2 INTEGRATED HEALTH SERVICES DELIVERY

Box 4.1

ENABLING AND ASSESSING INTEGRATED HEALTH SERVICES DELIVERY

Despite the growing significance of integrated care, detailed development and evaluation of its instruments remain limited (Bautista, Nurjono, Lim, Dessers, & Vrijhoef, 2016) due to a lack of unifying definitions or a common conceptual understanding of integrated care (WHO/Europe, 2016c). As a result there is no consensus on specific measurement tools. Nevertheless, numerous monitoring frameworks have been set out, including the 2030 Agenda for Sustainable Development (United Nations, 2015a), Health 2020 (WHO/Europe, 2013) and WHA 69.24 (World Health Assembly, 2016).

There is a growing recognition potential metrics, namely the hospitalisation rate for ambulatory care sensitive conditions (ACSC) (WHO/Europe, 2016e). ACSCs are hospitalisations which can be avoided by timely and effective care in ambulatory settings and community care interventions (e.g. dehydration, gastroenteritis and chronic conditions) (Purdy, Griffin, Salisbury & Sharp, 2009). Measurement of ACSCs serves as a proxy for overall health services delivery performance by gauging the status of primary care and other settings. Other variables which could be measured include the properties of coordination, effectiveness, comprehensives and patient centredness which help focus improvement efforts and identifying bottlenecks (WHO/Europe, 2016b).

Sources: Bautista et al., 2016; Purdy et al., 2009; United Nations, 2015a; World Health Assesmbly, 2016; WHO/Europe, 2013, 2016b, 2016c, 2016e.

Delivering integrated health services requires the health system to consider the perspective of the individual, and to take a holistic approach to the multidimensional physical, mental, social and spiritual needs of the patient throughout the life course (WHO/Europe, 2016d). WHO advocates coordinating services around “the needs and demands of people” (WHO, 2016). The goal is to create a system capable of providing the right care, at the right time, with the right people and providers (Amelung et al., 2017), requiring mechanisms to coordinate care at three levels: for individuals; for health programmes and providers; and across sectors (WHO, 2016). We must also consider how the provision of primary, specialty and social care is organised and the types of care for which integration is necessary to ensure continuity of care. This entails looking at the varying and changing needs for care across a life course for the community of people in the population; how integration can be achieved; and the system level changes needed to support this shift. Multidisciplinary teams of providers who work across both delivery settings and levels and types of care are key to the delivery of integrated services (WHO/Europe, 2016e).

Placing people and communities at the centre of care means finding ways to actively engage patients to become involved in the management and coproduction of their own health (WHO/Europe, 2016b). Empowering patients and enhancing the role of the community at all levels of service delivery is key to achieving a person-centred system. This can range from the provision of tools enabling patients to manage their care, to providing carer support, community health workers and greater volunteer involvement (Smith et al., 2013). Ensuring the availability of social support networks is of paramount importance (Health Innovation Network South London, 2014), in the provision of care which should be oriented to needs of communities in the populations (Smith et al., 2013).

Box 4.2

COPRODUCTION OF HEALTH

Coproduction of health involves shared decision making between relevant stakeholders on a level playing field (Realpe & Wallace, 2010). It fosters long-term relationships between empowered individuals, communities, healthcare professionals and the health system (WHO, 2015e). Healthcare is not delivered “to” or “for” people but “with” people. Ensuring patients feel empowered in making decisions about their health pays off in the long term, particularly when compared to patients’ whose conditions worsen due to prescriptions and treatments which do not align with their lifestyles or preferences. Research show individuals are more likely to diligently commit to treatment plans and less likely to rely on emergency services if they are better informed and allowed to take part in shared decision making. A Singapore study on person-centred care for older people with dementia in an acute hospital found not only was it cost-effective but improved patient outcomes across several measures (Tay et al., 2018). Another study on the effects of person-centred care in patients with chronic heart failure suggests a person-centred approach shortens hospital stays. The average length of stay in the usual care group was 9.22 days, compared with 8.22 days for patients from the person-centred care group. Furthermore, readmission occurred in 49% of patients in the person-centred care group compared with 59% in the usual care group over a six-month period (Ekman et al., 2012).

Sources: Ekman et al., 2012; Realpe & Wallace, 2010; Tay et al., 2018; WHO, 2015e.

COST-MINIMISING EFFECT OF COMMUNITY SERVICE

Enhancing community and sub-acute care has the potential to reduce hospital utilisation and ultimately, the associated costs of healthcare. Data collected from a RGC theme-based research study demonstrated that **every HKD1 invested in community service could save HKD8.4 of acute care cost**- an estimation made based on the service records and hospital discharge summaries of an integrated home care service; **every HKD1 invested in Outbound Community Geriatric Assessment Services saved HKD7.6 of acute care cost**- an estimation based on records of an Old Age Home; and **convalescent care could avert 28-day hospital readmissions by 9.6% of total patients discharged in one year** (translating to a total of HKD39,742,692 saved considering the average convalescent bed-days for elderly) - an estimation based on electronic health records of convalescent hospitals.

Source: E. Leung, personal communication, October 20, 2018.

4.3 FRAMEWORKS FOR INTEGRATED HEALTH SERVICES DELIVERY

Different frameworks have been introduced to enhance understanding of the key elements contributing to integrated care (Stein, 2016). The European Framework for Action on Integrated Health Services Delivery calls for actions across four domains: (i) people, (ii) services, (iii) system and (iv) change (**Figure 4.3**) (WHO/Europe, 2016e).

PEOPLE

To successfully integrate health services delivery, the needs of the population and individuals should be prioritised. This domain sets out a course of actions identifying needs and tackling determinants of health; empowering and engaging patients, their families, and carers; and supporting the community in order to coproduce health in a partnership (WHO/Europe, 2016e).

SERVICES

Delivery processes need to be guided by the people domain and enabled by the health system. The services domain sets out a course of actions to help design a model of care with standardised clinical guidelines and tailored pathways; organise providers to facilitate the model of care; ensure result-oriented management to execute operation of the model; and put in place performance evaluation and subsequent optimisation of the model (WHO/Europe, 2016e).

SYSTEM

The system domain refers to the institutional and organisational arrangements for implementing and sustaining the model of care. This domain sets out a course of actions to align accountability, incentives, workforce, responsibility for drug use, and technologies to optimise service delivery performance and sustainability (WHO/Europe, 2016e).

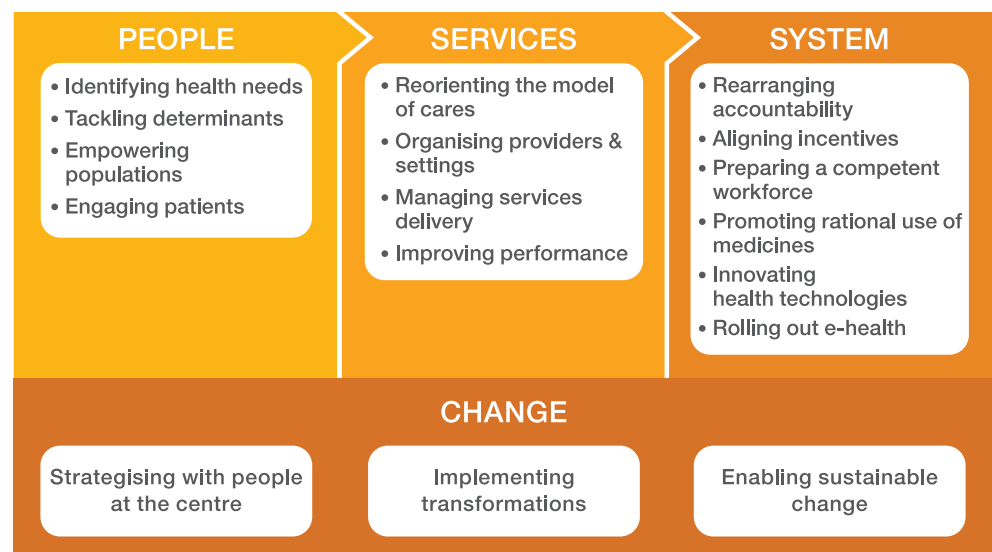
CHANGE

Change should be a stepwise and continuous process spanning across the people, services, and system domains. This domains sets out a course of actions to define problems and set a direction for change involving different parties in the health system, including: testing ideas with pilots, experiments and case studies; and implementing change in a sustainable manner (WHO/Europe, 2016e).

GOVERNANCE AND LEADERSHIP: LEVERS FOR CHANGE

The success of health services integration ultimately rests on finding alignment within and across these domains. Still, governance and leadership of a health system is the critical function which alone can enable this systemic alignment by employing key strategies and tools for integrating service delivery developed as levers for change. This will be elaborated upon in the next chapter.

FIGURE 4.3



EUROPEAN FRAMEWORK FOR ACTION ON INTEGRATED HEALTH SERVICES DELIVERY

Sources: WHO/Europe, 2016e; 2016f.

4.3.1 THE FRAMEWORK IN ACTION: STRATEGIC COMPONENTS AND TOOLS

Achieving service integration in the context of Hong Kong's current challenges requires us to develop both strategies and the tools to implement them. We identify three key strategic components:

(i) Re-orienting the model of care for comprehensive, holistic, person-centred care spanning across the life course

In the context of increasing longevity and greater susceptibility to preventable chronic illness, new demands have been placed on health services to provide care that is person-centred, proactive, comprehensive and adopts a continuous life course approach, based on a well-founded understanding of holistic needs and patient-provider relationships. Importantly, empowering and engaging patients and enhancing the role of the community at all levels of service delivery is key for coproduction and achieving person-centred care (Smith et al., 2013; WHO/Europe, 2016b). Care pathways need to be designed to facilitate coordinated services delivery around the needs of people and the community to optimise the care experience (WHO/Europe, 2016e). Preventive and promotive health needs to be integrated with curative and rehabilitative care in a "person's life pathway". A life course approach regards health as optimal capacity of human beings that changes with the changing interactions of multiple genetic, biological, behavioral, social, and economic factors (Braveman, 2014; Halfon & Hochstein, 2002; Halfon, Larson, Lu, Tullis, & Russ, 2014). Hence, designing care across a person's life course should address a spectrum of promotive, protective and risk factors that may contribute to health throughout a person's life (WHO/Europe, 2018b).

(ii) Centring around primary care

Primary care can be leveraged to address a number of issues of health system access, fragmentation and imbalanced investments in service delivery. It can also help shift focus towards holistic health outcomes in addition to sickness outcomes. Placing people at the centre of care, championing the role of the whole person in the coproduction of health, and facilitating collaboration between patients and providers to achieve the best possible outcomes. Access to primary care is strongly associated with improved outcomes including reduced hospitalisation and lower morbidity and mortality, better preventive care, and increased health equity (R. Y. Chung et al., 2016; Liu & Yeung, 2013; Stange, 2009; Starfield, Shi, & Macinko, 2005). Providing more appropriate care in a primary-care setting rather than via specialist care is also more cost-effective (Food and Health Bureau of the Hong Kong SAR [FHB], 2010b). When primary-care providers act as care co-ordinators and are the source of referrals to specialist and hospital care, patients are more likely to receive comprehensive care and be better linked to other services within the system and across sectors (including the social sector) (WHO//Europe, 2016b). This in turn is associated with better health outcomes (FHB, 2010b) and higher satisfaction (Stange, 2009). Four key characteristics of a good primary care system have been identified, namely: access to services; continuity of care; comprehensiveness; and coordination of care (Wilson et al., 2015).

(iii) Integration between levels, sectors, providers, and settings of care

Delivering integrated health services requires us to consider the horizontal, vertical and temporal integration of care at patient service delivery and system levels so that different providers and sectors (e.g. social and health care; public and private), levels of care (i.e. primary, secondary and tertiary), and sites of care can be coordinated in a seamless and collaborative manner (JCSPHPC, 2017). Mechanisms for integration reside in the five domains: clinical, professional, organisation, functional and normative. At the organisational/service delivery level, organisational and professional integration are required to link different organisations via common governance mechanisms, while sharing competences, roles, responsibilities and accountability (JCSPHPC, 2017). Service standards and common protocols have to be developed to ensure clinical governance, performance, and clinical risk management. At the patient level, clinical integration is required to coordinate and centre care around the person across time, place and discipline (JCSPHPC, 2017). Finally, functional (i.e. management and information sharing) and normative integration (i.e. shared vision) provides the fundamental environment and frame of reference to enable integration across these three levels (JCSPHPC, 2017). These mechanisms of integration need to be considered across the three levels of health service delivery. For instance, the process of integrating levels of care and providers in different settings that correspond to a primary care-led person-centred model of care centred around a person across his/her life-course needs to overcome organisational barriers (such as siloed practices, fragmented care and gaps in information exchange) impeding care coordination. Improved skill mix and interdisciplinary collaboration are also required to facilitate the provision of complementary and coordinated services (Øvretveit, 2011).

4.3.2 HONG KONG'S PROGRESS

Efforts have been made to reorient Hong Kong's model of service delivery, moving our system towards the development and promotion of primary care. Understanding the progress that Hong Kong has already made provides insight into the next steps that need to be taken in moving forwards. The following section highlights some key progress made over the last decade.

CHALLENGES IN IMPLEMENTING PERSON-CENTRED CARE

Embracing person-centred care and coproduction of health is a stated priority of the government. In Hong Kong, although there has been renewed interest in person-centred care over the past decades, these efforts have remained novel and have not resulted in any major system changes (Chui, Wan & Chui et al., 2017). This is partly because person-centred care is an emerging and evolving concept, and how it manifests depends on the needs, circumstances and preferences of the individual receiving care, which may change over time (The Health Foundation, 2016). Barriers more specific to the Hong Kong context include inadequate training emphasis, absence of good training models and curricula, and lack of medical capacity (Chui, Wan & Chui et al., 2017).

HA has recognised the inadequate extent to which their current service models are coordinated, personalised and enabling, and has highlighted the provision of patient-centred care as one of their three main strategic foci pertaining to service delivery in their latest 2017-2022 strategic report (HA, 2017c). Patient satisfaction surveys indicate that more needs to be done in terms of patient-practitioner communication and partnership in decision-making. Furthermore, accessibility has long been a concern, particularly for SOPC services and inpatient care despite efforts to enhance service capacity (HA, 2017c).

Sources: W.S.T. Chui et al., 2017; The Health Foundation, 2016; HA, 2017c.

(i) Progress on reorienting the model of care

In 2008, the Task Force on Conceptual Model and Preventive Protocols adopted a life course approach to produce clinical protocols/guidelines, taking reference to international models, including the National Institute for Health and Clinical Excellence (NICE) Guidelines of the UK (NICE, 2018). Four Reference Frameworks were published, providing common reference for primary healthcare professionals to map out pathways of care, and facilitate the provision of comprehensive and continuing care in the community for age and disease-specific groups (Department of Health of the Hong Kong SAR [DH], 2008; Griffiths & Lee, 2012):

- Hong Kong Reference Framework for Diabetes Care in Adults in Primary Care Settings
- Hong Kong Reference Framework for Hypertension Care in Adults in Primary Care Settings
- Hong Kong Reference Framework for Preventive Care for Children in Primary Care Settings
- Hong Kong Reference Framework for Preventive Care for Older Adults in Primary Care Settings

These frameworks are also intended to support family doctors in the dissemination of health promotion messages to the public, as well as bolster the self-management skills of their chronic disease patients and their carers (DH, 2018f).

(ii) Progress on centring care around primary care

In 2010, FHB published the “Primary Care Development in Hong Kong: Strategy Document” setting out a vision for the improvement of primary care services in Hong Kong. Major strategies, initiatives and pilot projects aiming to enhance primary care were outlined in the document (**Table 4.1**). In the same year, the Primary Care Office was established under DH to act as the key coordinator between private and public service providers and other stakeholders involved in strengthening primary care in Hong Kong (FHB, 2010b).

Box 4.5

VISION OF THE FUTURE PRIMARY CARE SYSTEM

The 2010 Primary Care Development in Hong Kong: Strategy Document set the tone for the future primary care-led system. Hong Kong aspires to:

- Provide every citizen with a primary care doctor who acts as their “long-term health partner”;
- Provide comprehensive, continuous and coordinated care across the health system;
- Disease prevention and management undertaken together with multidisciplinary teams;
- Support everyone to “improve and take care of their own health”;
- A health workforce composed of trained professionals providing high-quality, evidence-based, person-centred care in the “context of family and community”.

Source: FHB, 2010b.

TABLE 4.1

Strategies to Enhance Primary Care in Hong Kong	Initiatives and Pilot Projects to Enhance Primary Care								
	Development of Conceptual Models and Protocols	Primary Care Directory	Pilot Projects to Improve Chronic Disease Management	Community Health Centres/ Networks	Primary Dental Care	Community Mental Healthcare	Electronic Health Record (EHR) Sharing System	Strengthen Primary Care-related Research	Establishment of the Primary Care Office
Develop comprehensive care by multi-disciplinary teams	✓	✓	✓	✓		✓	✓		✓
Improve continuity of care for individuals	✓		✓	✓			✓		✓
Improve coordination of care among healthcare professionals across different sectors	✓	✓	✓	✓		✓	✓		✓
Strengthen preventive approach to tackle major disease burden	✓		✓	✓	✓	✓			
Enhance inter-sectoral collaboration to improve the availability of quality care, especially care for chronic disease patients		✓	✓	✓	✓	✓	✓		
Emphasise person-centred care and patient empowerment	✓		✓	✓	✓		✓		
Support professional development and quality improvement	✓	✓	✓				✓	✓	✓
Strengthen organisational and infrastructural support for the changes		✓		✓			✓		✓

STRATEGIES FOR DEVELOPING PRIMARY CARE IN HONG KONG AND INITIATIVES AND PILOT PROJECTS BEING OR WOULD BE CARRIED OUT

Sources: Adapted from FHB, 2010b; Legislative Council Secretariat, 2011.

Other key projects include trials of new integrated care models, primarily delivered through Community Health Centres (CHCs) run by HA, and the soon-to-be launched pilot District Health Centre (DHC) in Kwai Tsing that will commence services tentatively in the third quarter of 2019 (Lam, 2018b). CHCs and DHCs are piloting service models for delivery of primary care to better coordinate existing services and reduce need for hospitalisation and specialist services. CHCs provide ‘one stop’ primary care through integrated multidisciplinary (medical, nursing, and allied health) services, including medical consultations, health risk assessments, and special services for patients with chronic illness (risk assessment and management programme (RAMP): diabetic eye and foot checks, etc.). They also run programmes emphasising patient empowerment (the Patient Empowerment Programme [PEP]). CHCs are intended to complement the capacity and scope of the General Out-patient Clinics (GOPCs), and the consultation quotas of GOPCs and CHCs are pooled where possible. Since starting operations, CHCs have experienced growing attendance rates (**Table 4.2**) and Government is currently working to expand operations into new districts (Government of the Hong Kong SAR, 2017d).

TABLE 4.2

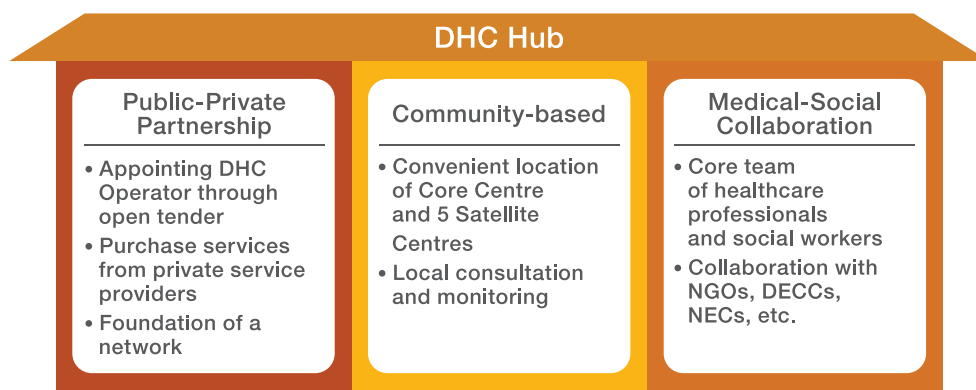
CHC	2013-14	2014-15	2015-16
Tin Shui Wai (Tin Yip Road) CHC	71,124	75,488	82,431
North Lantau CHC	29,580 (Commenced service in September 2013)	59,774	64,826
Kwun Tong CHC	-	5,336 (Commenced service in March 2015)	235,505

ATTENDANCE OF CHCs

Source: Government of the Hong Kong SAR, 2017d.

DHCs are intended to strengthen primary care, medical-social collaboration, and public-private collaboration in the community (**Figure 4.4**). The DHC operator will be recruited through open tender, and services will be purchased from private service providers. Medical and health professionals will be recruited into the Core Centre, Satellite Centres and the DHC Network, and services will be provided in collaboration with non-governmental organisations (NGOs), District Elderly Community Centres (DECCs) and Neighbourhood Elderly Centres (NECs) to residents in the Kwai Tsing District. Initial plans of the DHC operational model show the development of a medical practitioner network offering services to patients with identified health risks, supported concurrently by a network of allied healthcare professionals and Chinese medicine practitioners (FHB, 2018a). Key services offered at DHCs include: (i) primary prevention services (i.e. lifestyle related health promotion, advisory, counselling and education; basic assessment for chronic diseases risk factors); (ii) secondary prevention services (i.e. assessment and screening for early identification of chronic diseases); and (iii) tertiary prevention services (i.e. chronic diseases management and community rehabilitation (FHB, 2018a).

FIGURE 4.4



DHC MODEL

Source: Adapted from FHB, 2018a.

The plans put forward by the Government to promote primary care rely to a large extent on the health workforce to succeed. Following the 2017 Strategic Review on Healthcare Manpower Planning and Professional Development published by the FHB (FHB, 2017b), the Government has been developing a manpower strategy to ensure Hong Kong has an adequate supply of health workers to meet population need and support the sustainable development of the health system (FHB, 2017b). However, the estimates in the Review are based on utilisation in the current segmented and fragmented health system, and the existing models of healthcare and will need to be adjusted if system changes are made.

Despite the aforementioned initiatives on centering care around primary care, workforce challenges remain in primary care, particularly when Hong Kong mostly depends on specialists for primary care. However, specialists are not the best providers of primary care, and receiving primary care from specialists is associated with higher rates of hospital admission for patients with chronic illnesses (R.Y. Chung et al., 2016). In addition there is a need for mechanisms to facilitate skill transfer and to enable primary care doctors manage more complex problems arising from multimorbidity and geriatric syndromes in the community (e.g. skills in geriatric and palliative medicine, and in managing common chronic illnesses, and minor psychiatric problems). This de-escalation of care leaves the management of patients with complicated conditions at the secondary or tertiary care levels. In particular, there is a need to engage existing primary care providers and to provide enhanced training in geriatric and palliative care. Similarly, specialists who engage in primary care will benefit from corresponding training.

There is also the need for clear treatment guidelines/ care pathways and the development of a health/ disease protocols that will clearly illustrate the healthcare provider responsible for respective stages of the treatment pathway.

(iii) Progress on integrating between levels, providers and settings of care

To improve interfacing between hospital and community services, HA set up the Community Geriatric Assessment Team (CGAT) in 1994. CGAT is a multi-disciplinary team comprised of geriatric specialists, community visiting medical officers, nurses, physiotherapists, occupational therapists, and medical social workers. CGAT would act as a case manager, following up with frail elders (who usually have multiple chronic illnesses) along their disease trajectories and throughout the transition of care from hospital to community.

Key services include pre-admission assessment and management of transition between subvented care homes and hospital infirmaries, outreach geriatric clinics to care homes. CGAT also provides hospital discharge support services and geriatric home care. Moreover, CGAT pilots for end-of-life (EOL) care offer medical support to patients approaching the EOL stage in Residential Care Homes for the Elderly (RCHEs) (HA, 2018a; T.K. Kong, 2005; C.P. Wong, 2015).

Box 4.6

INAPPROPRIATE ADMISSION TO HOSPITAL – AMBULATORY CARE SENSITIVE CONDITIONS (ACSC)

A clear indicator of the challenges posed by system fragmentation is seen in the rate of avoidable re-admission to hospital. Extended wait times and diminished access to services are now commonplace. Nearly half of all hospital admissions in the public sector are ACSCs which could be dealt with in primary, community and ambulatory care settings, while the unplanned readmission rate within 30 days is 20% indicating problems with care quality, inadequate support for discharge care in the community, and inadequate coordination between health services at different levels of care and between health and social care. For elderly patients, the rate of ACSCs is 46.8%. This indicates that almost half of the admission to HA hospitals could be dealt with outside of hospital settings. Avoidable readmissions can be prevented through improving clinical management and patient care, particularly around discharge planning, enhanced patient knowledge on early warning signs for relapse, and access to ambulatory care to support patients in the community.

Sources: JCSPHPC, 2017; Yam et al., 2010, 2014.

Further strengthening the coordination of hospital and community services, and in response to the high hospital admission and readmission rate (44% of general patients and 46.8% of elderly patients admitted to HA hospitals via Accident & Emergency [A&E] or outpatient departments were classified as ACSC), the Government, in collaboration with HA, launched the Integrated Discharge Support Programme for Elderly Patients (IDSP) in 2015 (Yam et al., 2010, 2014; Yeoh, 2018b). Key services include discharge planning, transitional rehabilitation service, home care services, and carer training for elderly persons newly discharged from HA hospitals assessed to be at high risk of unplanned re-admission (T. Kong, 2015). In the program, allied health professionals act as case managers, coordinating with NGOs to provide community services to elderly persons, including meal delivery, household cleaning, and home assessment and modification (Lin, Luk, Chan, Mok, & Chan, 2015). However IDSP is only targeted at patients at high risk of re-admission and does not cover the majority of patients who may need post-discharge support.

Since 2008, numerous public-private partnership (PPP) schemes have been developed to encourage collaboration and knowledge-sharing between the public and private sectors, and to provide greater efficiency and access to healthcare (Quality HealthCare Medical Services Limited & Asia Care Group, 2018). PPP schemes leverage primary care to help patients better manage their health in the community (Quality HealthCare Medical Services Limited & Asia Care Group, 2018). HA has launched the GOPC-PPP, the Haemodialysis PPP, and the Cataract Surgeries Programme (CSP), and DH has introduced a number of vaccination schemes subsidising certain high risk groups to

receive vaccination from private medical practitioners (Centre for Health Protection, 2018b; Hospital Authority, 2018e). FHB introduced the Elderly Health Care Voucher Scheme (EHCVS) in 2009 (Government of the Hong Kong SAR, 2018b).

HA highlighted the provision of high quality and responsive services as a key area of focus in their 2017-2022 Strategic Report (HA, 2017c). Strategic goals and directions identified to help transform the way HA delivers care include the development of guidelines and protocols, refining clinical governance and performance monitoring, technology planning, and partnering with private and community partners (Figure 4.5).

FIGURE 4.5

Strategic Focus	Strategic Goals (What we want to achieve)	Strategic Direction (Where we are going)	Strategies (How we get there)	HA Vision
Provide Patient-Centred Care	Improve service quality	Enhance access & efficiency	Promote day services	Healthy People
			Strengthen service coordination & collaboration	
		Develop more options for patient care		
		Enhance community-based care		
	Improve safety & effectiveness	Develop service standards & common protocols		
		Refine clinical governance & performance management		
	Modernise HA	Reinforce technology planning and adoption to keep up with international standards		
Upkeep existing equipment				
Promote partnerships with patients	Empower patients for self-care			
	Engage patients in shared decision-making			
Optimise demand management	Raise the capacity of priority services	Engage patients to support service improvements		
		Increase capacity of high demand services		
	Roll out service enhancements for time-critical care			
Share out the demand	Reinforce Public-Private Partnerships (PPP)			

HA 2017-2022 STRATEGIC FOCUS, GOALS AND DIRECTIONS

Source: HA, 2017c.

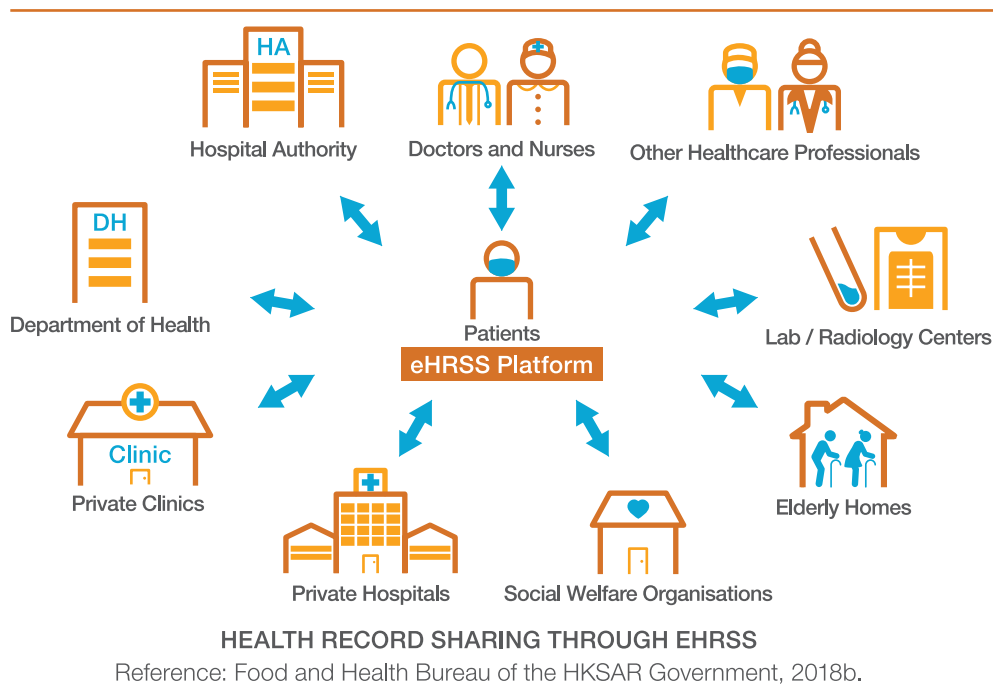
Various mobile applications have also been introduced by HA (HA, 2018c). The Smart Patient Website (SPW) provides a one-stop information platform for patients, their family members, and carers to learn about disease and enhance ability to self-manage (HA, 2018f). The SPW also provides recommendations on patient activities and information about patient groups, encouraging users to utilise community resources, and to share their experience and provide mutual support (HA, 2018f).

A mobile application 'DM Care' was rolled out in New Territories East Cluster hospitals and GOPCs as a pilot scheme in 2017 to empower diabetes patients (HA, 2017a). 'DM Care' allows patients to record and monitor blood glucose levels, which can improve disease control and maintenance of a healthy diet (HA, 2017a). These records can be reviewed in follow-up consultations to guide the provision of more appropriate medical advice (HA, 2017a). The app also provides information and videos on diabetes, such as prevention methods, oral and foot care, and ways to support carers to monitor patients (HA, 2017a).

A series of pilot projects to take forward the of electronic health record system (EHR) have been undertaken. The largest of these - the 2006 Public-Private Interface - Electronic Patient Record Sharing Pilot Project (PPI-ePR) project - tested the security, feasibility and patient-willingness of data sharing (HA, 2018d). In 2008, a Steering Committee and an eHR Office were established to manage the project. In 2009, \$702 million was committed for the first stage of the Electronic Health Record Sharing System (eHRSS) (Legislative Council of the Hong Kong SAR, 2009). In 2016, the eHRSS was rolled out, enabling both private and public healthcare providers to share records of patients with informed consent (**Figure 4.6**). Development of the eHRSS is ongoing, and the scope of shareable data is increasing (i.e. expanding to Chinese medicine). A Patient Portal allowing patients direct access to eHRSS is currently being developed (Legislative Council of the Hong Kong SAR, 2018a).

EHR continues to face challenges, particularly regarding the low-uptake of the system by patients and the private sector. As of April 2018, there were 730,000 patient registrations (Legislative Council of the Hong Kong SAR, 2018a), accounting for only 10% of the total population (World Population Review, 2018). Furthermore, only 44,000 (40%) of overall registered medical professionals in Hong Kong have registered (Legislative Council of the Hong Kong SAR, 2018a). Frequently cited concerns of private medical professionals include start-up costs and staff training (Quality HealthCare Medical Services Limited & Asia Care Group, 2018).

FIGURE 4.6



Taken together, these efforts are likely to have a more significant impact, and to be more effective and efficient when formulated and designed according to a systemic and strategic framework informed by health needs, guiding implementation strategies which are evaluated for their effect and impact. This will require services delivery to follow a strategic and implementation plan that has ongoing evaluation, feedback, and further development, so that it can become more responsive to the changing world (Smedley, Stith, & Nelson, 2003).

4.3.3 MOVING FORWARD FROM CURRENT INITIATIVES

Re-organising service provision in Hong Kong will require looking at: the organisation of providers and service delivery settings; the nature and skillmix of the workforce; and the role of technology and information technology (IT) in linking and integrating care. **We need to move towards a primary care-led integrated person-centred model of service delivery organised around primary care hubs nested within community networks which link to hospital hubs to integrate services and care across both levels of care and service sectors (including health and social sectors).**

(i) Organising providers and settings

Organising providers such that they deliver care and provide services catering to the holistic needs of individuals and communities requires a number of organizational barriers to be overcome, such as isolated practices and fragmented information exchange, which impedes care coordination. Improved skill mix and interdisciplinary collaboration facilitating the provision of complementary and coordinated services that overcomes issues of fragmentation and reduces duplication of services have contributed to improved service provision (Øvretveit, 2011). Some settings may require repurposing, such as hospitals and community pharmacies, to fit a desired model of care provision. In gearing up for a primary-care led health system, the organisation of primary care is critical. Renewed attention on the core characteristics of primary care system, shifted from a traditional focus on individual practitioners working in isolation to group practice. Such changes

in organisation of primary care in many countries, together with advances in technology, have led to new models of primary care being developed. Many initiatives have focused on the provision of more accessible primary care that ensures contact with providers in the quickest possible way, even during off-hours (for example, through effective telephone triaging and decision-making). As more data becomes available, primary care organisations are better able to plan and deliver care using population-based approaches.

THE CASE OF ONTARIO, CANADA

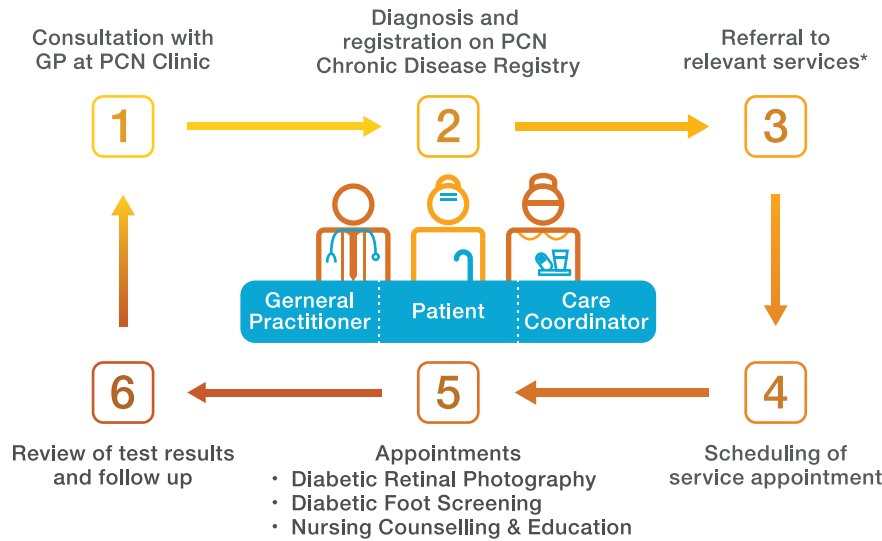
Strengthening primary care is a priority in Canada (Strumpf et al., 2012). The Province of Ontario leads this effort, pioneering a range of primary care models (Ashcroft, 2015). Of these, the Family Health Team (FHT) is the provincial government's flagship model (Marchildon & Hutchison, 2016). FHTs were designed to improve access to a wider scope of care services and patient-centred care while connecting patients to appropriate services in their community (Ontario Ministry of Health and Long-term Care, 2016). FHTs are "community-centred primary care organisations" made up of teams of family physicians, nurses, and other professionals (e.g. pharmacists, dieticians, social workers and psychologists). FHTs are geared to local health and community needs (Glazier, Hutchison, & Kopp, 2015). While physicians in FHTs are paid through capitation-based methods or by a mix of capitation and salary, non-physicians are salaried. Since 2005, 184 FHTs are in operation serving more than 3 million patients in more than 200 communities across Ontario (Ontario Ministry of Health and Long-term Care, 2016). Studies have demonstrated the attractiveness of the FHT model to a large number of physicians (Moat, Lavis, & Hutchison, 2014), as well as its success in improving access, outcomes and affordability (Glazier et al., 2015; Gocan, Laplante, & Woodend, 2014; Kiran, Kopp, Moineddin, & Glazier, 2015).

THE CASE OF SINGAPORE

Closer to home, the Singapore Ministry of Health (MOH) granted an annual budget of USD45 million from 2018 to 2022 to encourage private GP clinics to organise themselves into networks via the Primary Care Network Scheme (PCN) as part of efforts to enhance primary care, and shift care beyond hospitals and into the community to promote better chronic disease management (Chua, Chong, Hwee-lin, & Yean, 2015). As of April 2018, 349 private GP clinics have joined the scheme, organising themselves under 10 networks (MOH Singapore, 2018b).

Key features of the PCN Scheme include multidisciplinary mobile teams made up of Nurse Counsellors (NCs) and Primary Care Coordinators (PCCs), and a Chronic Disease Registry (CDR) for every clinic. Services provided by the mobile team include nurse education, Diabetic Retinal Photography (DRP) and Diabetic Foot Screening (DFS) (MOH Singapore, 2018b). Network physicians manage patients with more complex chronic conditions and care needs. Patients are referred by network physicians to see NCs and relevant ancillary services such as diabetic foot or eye screenings in this service model. PCCs schedule patients for ancillary services within the clinic's vicinity to foster a seamless patient care experience. The network physician reviews test results and follows up with the patient (**Figure 4.7**). The patient's progress and clinical outcomes are tracked and monitored under the PCN CDR to ensure personalised care and treatment plans are followed through (Singapore Silver Pages, 2017).

FIGURE 4.7



PATIENT PRIMARY CARE EXPERIENCE SINGAPORE UNDER THE PRIMARY CARE NETWORK SCHEME

Source: Adapted from Singapore Silver Pages, 2017.

Note: (*) If necessary.

THE CASE OF SCOTLAND

Scotland’s national telehealth and telecare organisation NHS 24 offers a telephone triage service providing health advice and referrals to healthcare services or specialists outside office hours (Lind, 2013). It aims to achieve “increase[d] overall capacity within GP practices to address rising demand; reduce demand for face-to-face same day GP appointments; improve overall patient experience/ pathways; support a model of redirection through digital first service provision; and support integration of health and care services” (Healthcare Improvement Scotland, 2018). NHS 24 and other telephone consultation services have the potential to address health issues in the community while simultaneously easing the burden on healthcare systems by minimising excessive or unnecessary utilisation. Users can speak with trained call handlers or healthcare professional to discuss symptoms or other health issues and receive advice on what steps to take (NHS 24, 2017). A patient can be referred to a GP or specialist if necessary, and in cases of an emergency an ambulance can be dispatched. In 2011, over 1.3 million calls were received by NHS 24 with 82.6 percent made out-of-hours (Elliott, McAteer, Heaney, Ritchie, & Hannaford, 2015). Nearly 98 percent of calls made involved common health problems including abdominal, dental, and rash or skin problems (Elliott et al., 2015).

(ii) Workforce and skillmix

A multidisciplinary approach must be adopted in health services delivery and practices and teams must be structured accordingly. Information exchange and communication within and between health professionals at different levels of care needs to be a priority for integration of services. At the same time, suitable adjustments to the scope of practice and roles of various health professionals are necessary to facilitate the adoption of a multidisciplinary approach to services delivery.

The health workforce is essential to the proper functioning of the health system. While demographic and epidemiological transitions place new demands on health services required by the population, they also impact the health workforce structure. At present, in many countries a mismatch exists between the growing prevalence of patients with multiple chronic diseases and the ability of the health workforce to properly care for them (Pruitt & Epping-Jordan, 2005). Workforce training models continue to emphasise curative care for acute conditions despite the increasing demand for complex long-term care, with implications for manpower equipped to work in these areas (Pruitt & Epping-Jordan, 2005). Primary care-led models necessitate restructuring of the health workforce to provide “treatment that is continuous across settings and across types of providers; care for chronic conditions needs to be coordinated over time” (Busetto, Calciolari, González Ortiz, Luijkx, & Vrijhoef, 2017). In essence, this points to the need for collaboration between healthcare workers themselves, and with their patients, such that treatment plans focusing on the needs and preferences of patients and their carers are developed.

As we move away from increasing specialisation and sub-specialisation, and instead embrace generalists, we can shift the system to promote a greater role for primary care. Having generalists working in primary care has been demonstrated to be advantageous to both patients and the wider health system; they can provide comprehensive care, help ensure greater continuity of care, and act as care-coordinators to help patients navigate the health system. Still, no single provider has the skills to provide care across all settings and meet all needs. Some patients also require care delivered by other kinds of health professionals-nurses and allied health professionals (Busetto et al., 2017). As such, a mix of healthcare professionals needs to be developed and distributed, while interactions must be properly managed to ensure integrated care. There is no universal approach to health workforce integration. Different local routes have been pursued with cultural-specific workforce interventions and management (Busetto et al., 2017). Nevertheless, improving relationships and alliances between patients and providers, and continuing to develop clinical competence and manpower are fundamental tools (Busetto et al., 2017). To effectively implement strategies, it is necessary to determine the correct skill and staff mix of the health workforce to meet patient population needs (Busetto et al., 2017). In this context, multidisciplinary teams become increasingly important in the delivery of care and can be supported via networks or federations, particularly where general practices/primary care practices are small (Busetto et al., 2017).

One of the challenges facing primary care today is how to manage and combine specialism and generalism in the delivery of care. Some systems have been experimenting with new approaches, such as (i) having primary care teams and networks contract with specialists; (ii) purchasing specialists to support GPs; (iii) facilitating GPs and specialists to produce joint protocols for diagnosis, referral and treatment with primary-care led coordination; and (iv) co-locating specialists and generalists within the same premises (Smith et al., 2013).

(iii) Technologies and IT infrastructure

As we emphasise the importance of information exchange within and between levels of care, we must also give thought to the information and communications technology as a key lever that will facilitate this process. Different methods such as telephone or email remote consultations and shared health records have been developed (Frist, 2005).

Digital technology is having a profound impact on how we live our daily lives. This is true for how we experience being patients, how medical professionals deliver care, and how the health system is managed, monitored and organised. Importantly, digital technology is playing a growing role in how patients navigate the health system. Access to online medical records, prescription renewal, patient groups, and the rising use of apps and wearable tech is helping people to stay well, both before entering the health system, and post-consultation. Service directories, online information, and online interactive symptom checkers can help people find and access the right kind of care, and video-consultations, web chat, and telephones facilitate new kinds of interactions with health professionals.

In the context of primary care, some countries have experimented with using technology to change access to primary care services and how services are provided, with technology supporting routine operations, enabling longer (even 24-hour) access to advice and support (including electronic appointment booking system, management of prescriptions, access to test results and medical enquiries), and reducing face-to-face consultations and attendances at hospital A&E departments. Additionally, technology enables information continuity of care. For example, shareable electronic health records that can be accessed by patients and which follow them throughout the pathway of care will, alongside developments in artificial intelligence, empower patients and the community of persons to be co-producers of health.

Box 4.7

COLLABORATION VIA HER: KAISER PERMANENTE (KP)

KP in the US has developed an EHR which is shared throughout their network - with primary care doctors, specialists based in hospitals and offices, as well as with nurses, pharmacists, and allied health professionals. EHR allows collaboration with patients throughout their healthcare journey, and has together with telemedicine and electronic consultation, “fundamentally changed the way medicine is practiced at KP”. The rich data collected provides untapped opportunities to improve access, quality, effectiveness, efficiency, equity and sustainability of the health system. “Big data” analysis enabled by artificial intelligence can provide both “real-time” solutions and a basis to plan strategically for the future.

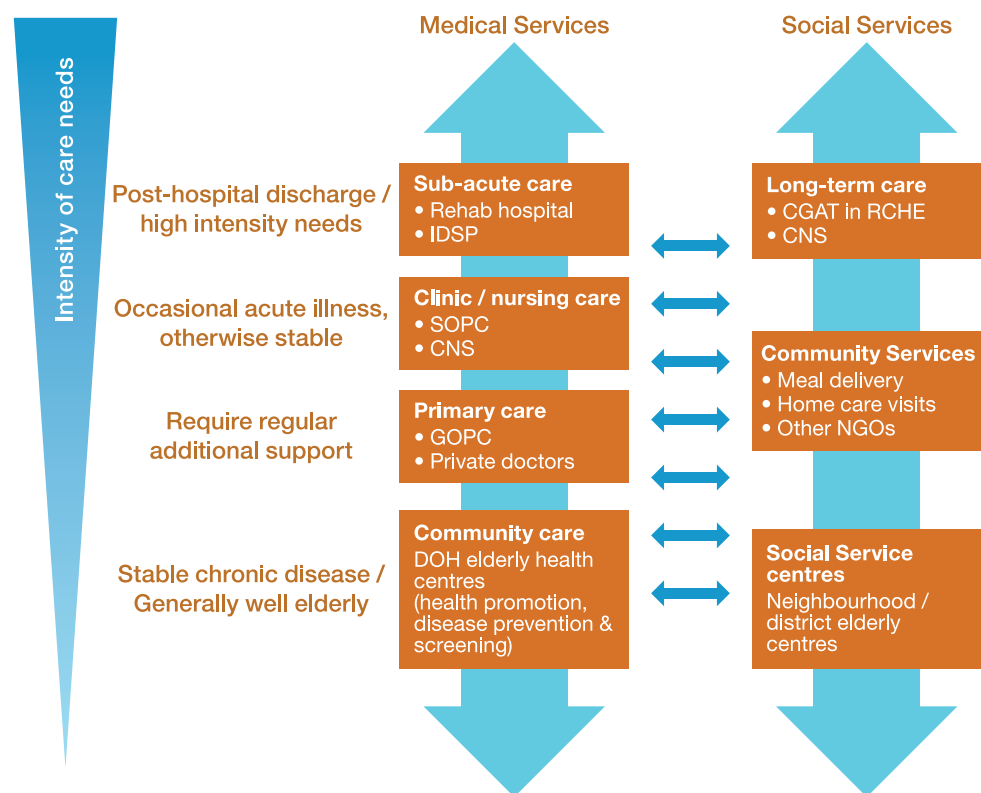
Source: Mate & Compton-Phillips, 2014.

4.4 OUR VISION

In 2014, JCSPHPC at the Chinese University of Hong Kong was commissioned by the FHB Health and Medical Research Fund to develop and evaluate a model of care to better cater for an ageing population (JCSPHPC, 2017). Synthesising evidence from interviews, focus groups, hospital data and international literature, JCSPHPC proposed a Conceptual Model for Integrated Community Medical-Social Services for care of older people in Hong Kong (**Figure 4.8**). This model emphasises coordination between medical and social services occurring at different levels of care, to occur via:

- integrated medical and social services for individuals on a spectrum of care needs;
- moving care to the community (i.e. to receive any or all necessary services within their home or their local area);
- seamless patient experience of care and support (i.e. to be referred or transferred across service interfaces) (JCSPHPC, 2017)

FIGURE 4.8



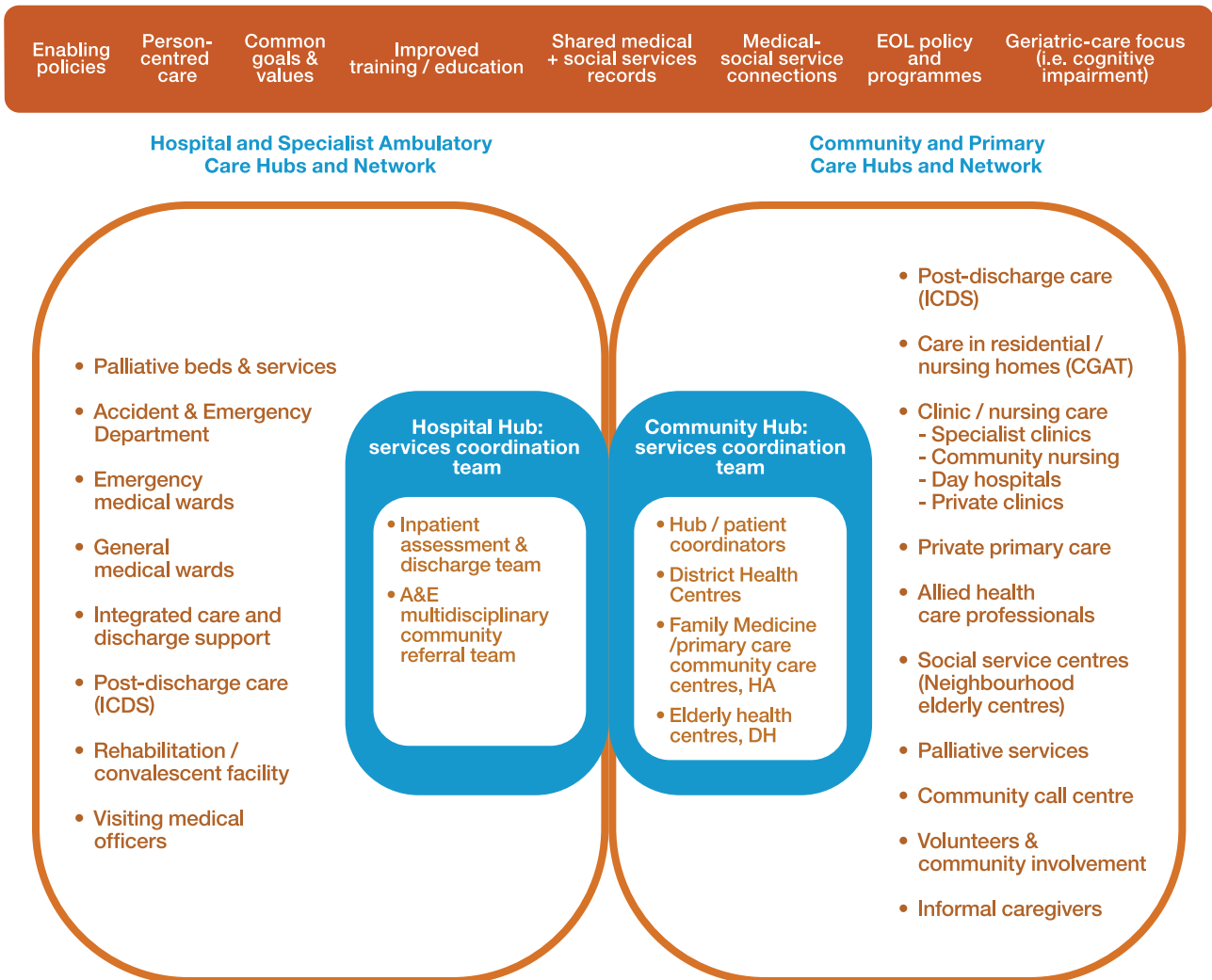
CONCEPTUAL MODEL FOR INTEGRATED COMMUNITY MEDICAL-SOCIAL SERVICES FOR THE CARE OF OLDER PEOPLE IN HONG KONG

Sources: JCSPHPC, 2017; Yeoh, 2016.

Complementing this model, a short- to medium-term health service delivery framework was conceptualised, focusing on building the capacity of the community to enable organisational changes, effective coordination, and policymaking (**Figure 4.9**). This service model provides a blueprint for care integration and moving care into the community. In this conceptualisation, a **primary care-led community network** should be formed, involving different private, public and NGO providers, to coordinate and integrate health and social care in the community. This involves setting up a multifunctional primary care hub embedded in a supportive community network, similar to the positioning of the pilot Kwai Tsing DHC, that could be linked to community-based services such as those provided by HA, DH, private primary care providers and social care providers. The primary care-led community network should have a hub as a physical location and focal point for coordinating community services and connecting patients to appropriate services in the community. It should have primary care and social services, where desirable, to co-locate (thereby enhancing organisation integration), and to align and communicate more effectively with network providers to avoid service overlaps and gaps. Patients can be assessed more readily and connected to other levels of care when necessary. After post-discharge care, patients can be referred on to other community services for follow-up action to ensure continuity in the patient experience. Professionals, private or public, can work together and share competences, roles, responsibilities and accountability within the network. The competences and roles of informal caregivers and volunteers are also acknowledged in the network.

The primary care-led community network should also link up with the hospital and specialist ambulatory care hubs and network to achieve comprehensive service provision to meet holistic needs of patients across the life course. **Notably, integration between hospital and primary care, medical and social care, and care delivered in public and private sectors would be necessary to achieve this conceptualised service model. Hospital hubs coordinate specialist care, preadmission care and post-discharge care in the community.** Currently, two pilot studies have been undertaken, examining the effects and feasibility of providing community care instead of inpatient hospital care in the model using a variety of clinical outcomes (e.g. hospital admission rate of individuals cared for in the community and hospital readmission of individuals discharged from the hospital) and implementation outcomes (e.g. acceptability, appropriateness, fidelity). Results are yet to be published (JCSPPHC, 2017).

FIGURE 4.9

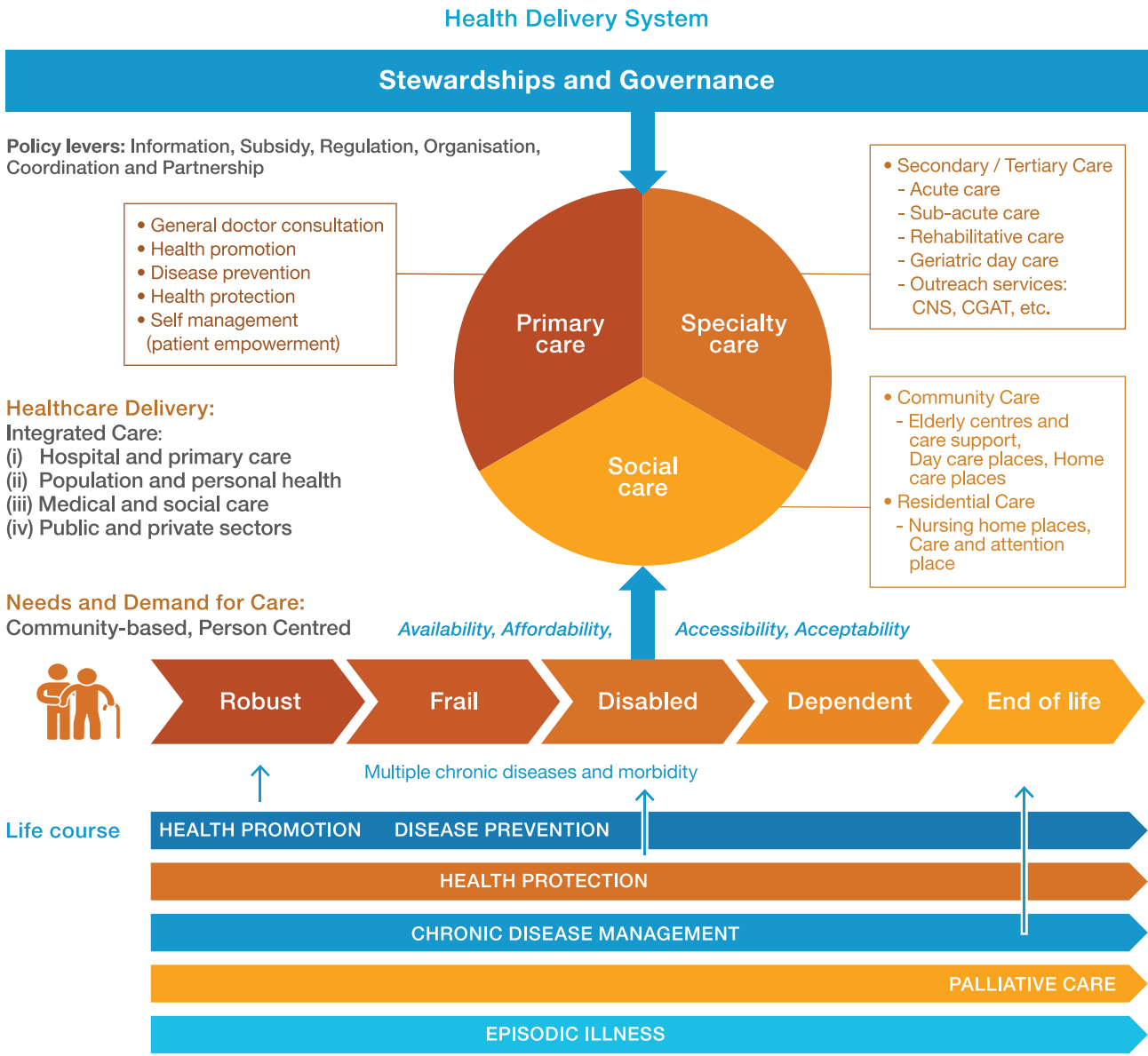


INTEGRATED SERVICE FRAMEWORK FOR INPATIENT AND COMMUNITY CARE (SHORT-TO-MEDIUM-TERM)

Source: JCSPHPC, 2017.

- Notes: (1) Hubs and networks are intended as 'virtual connections'.
 (2) Service lists are for illustrative purposes.
 (3) Many connections between services are encouraged, in addition to the close working connection between hospital and community hubs.

FIGURE 4.10



VISION FOR AN INTEGRATED HEALTHCARE DELIVERY SYSTEM IN HONG KONG

Source: Yeoh, 2018c.

4.5 CONCLUSION

In moving forward, we must reorganise how health services are delivered to strengthen integration of healthcare to better cater for the holistic needs of our ageing population throughout the life course (**Figure 4.10**). Public health functions of population health also need to be integrated with the delivery of personal health at the three levels of primary, secondary and tertiary care. Key areas that require attention include linking practices together (in networks, federations or merged partnerships); changing the professional skillmix of the health workforce and increasing the extent and depth of multidisciplinary care; and adopting new technology to improve access, convenience, and organisational efficiency. This entails ensuring seamless transitions between the different types of healthcare provided in various settings by different health professionals and organisations guided by robust clinical governance frameworks. To achieve this in Hong Kong, we must put in place a system of primary care-led integrated person-centred health services that addresses fragmentation and segmentation in service organisation, builds connections between primary, secondary and tertiary care and across public and private care, and that links medical and social services. This transformation will involve organisational adjustments and behavioural changes of all involved parties, evaluation of the way our health workforce is structured, and having infrastructures in place to facilitate information flow within and between sectors, enabled by leadership and governance of the health system. Necessary managerial processes including management of resources, and mechanisms for monitoring and evaluation of service models are essential accompaniments.

Realising primary care-led integrated person-centred care entails many complex interventions targeting different interacting health system components and will involve multiple stakeholders. Different parties must work together, and with the community of persons, to achieve shared goals to change for the betterment of health outcomes. At the same time, it remains important that initiatives should build on current successful programmes and promising new knowledge, technologies and interventions. Transforming health services delivery shines a spotlight on the interactions between service delivery and the other health system functions of governance, financing and resourcing. The extent to which changes in service delivery are supported by the other health system functions determines the extent of alignment that can be achieved across the health system. Stewardship and governance of health systems is the critical function with the capacity to bring about interrelated and complex changes at the three levels of health service delivery to integrate healthcare for the community of people (WHO/Europe, 2016b).



Chapter 5

Health System
Governance -
How to transform

5.1 INTRODUCTION

An executive-led vision places the transformation of our system at the highest level. Active governance enables strategic decision making informed by health needs and services assessments, resource allocation, and mechanisms of accountability (Pyone, Smith, & van den Broek, 2017).

“Leadership and governance involves ensuring... a strategic policy framework exists... combined with effective oversight, coalition building, regulation, [and] attention to system-design and accountability,” according to the World Health Organization (WHO)’s Health Systems Governance for Universal Health Coverage Action Plan (WHO, 2014). Through steering and planning roles, government can actively influence systems to ensure optimal use of resources at every level (WHO, 2014).

Box 5.1

THE WHO ACTION PLAN OUTLINES FIVE ESSENTIAL ACTIONS:

- (i) Formulating policy and strategic plans;
- (ii) Generating intelligence for decision making;
- (iii) Putting in place levers for implementing policy;
- (iv) Collaboration across sectors and with external partners and
- (v) Ensuring accountability.

Source: WHO, 2014.

Health governance determines the collective goals and action of all health system players (Dodgson, Lee, & Drager, 2002). Working across sectors and agencies to integrate, organise and collaborate is essential to success (van Rensburg, Rau, Fourie, & Bracke, 2016). Rising levels of non-communicable diseases (NCDs) coincide with demographic changes to exert pressure on health resources. Placing person-centred integrated care at the top of the political agenda and supporting the local health system’s development through strategic goals and priorities is imperative (Threapleton et al., 2017).

This chapter discusses key policy levers which may accelerate Hong Kong’s transformation towards primary care led, person-centred, and integrated care. New governance modes and methods will be presented for planning, generating intelligence, policy change, collaboration, coalition building and accountability (WHO, 2014). Systemic and strategic integration at all levels of the health system is fundamental to the task and must be designed for people-centred care while guided by a clear vision and driven by consistent policy. The major challenge moving forward lies in taking a systemic-systems approach. This requires scaling up lessons learned from consultations and pilot programmes in a sustainable and coordinated fashion (X. Kong et al., 2015).

5.1.1 INTEGRATED GOVERNANCE FOR INTEGRATED CARE

Integrated care is an effective tool to address health system fragmentation and improve coordination between primary and secondary as well as medical and social sectors (Nicholson, Jackson, & Marley, 2013; Qian, Hou, Wang, Zhang, & Yan, 2017). System fragmentation does not only occur at service delivery levels, as referenced in Chapter 4, but also occurs in governance, for example in planning and financing (Cumming, 2011).

Integrated governance refers to the formal relationships between organisations which allow them to function and “to manage their deliverables, risk and process through collaborative business approaches” (Jackson, Nicholson, Doust, Cheung, & O’donnell, 2008). Integration of health service and care requires collaborative governance to succeed, and a refocus on **how** care is delivered, **where** it delivered, and **who** is delivering it (Nicholson, Hepworth, Burridge, Marley, & Jackson, 2018).

This requires new kinds of partnerships working in new ways. The shift in delivery follows a shift in organisational management and governance (Jackson et al., 2008). Horizontal and vertical integration are necessary for the benefits of integrated services between medical providers and the medical and social sectors to be fully realised. Temporal integration enables continuity over a life course. This ensures strategic reform goals are communicated to all participants within the health system while reshaping frontline reform priorities. It also ensures stakeholders views from the medical and social sectors are fed back into the system to inform service redesign (Beech et al., 2013).

Integrated care health governance presents a number of challenges stemming from the need to bring together multiple agencies and align their efforts to satisfy stakeholders, and ensure the health system meets its targets, goals, and duties in the delivery of services (Nicholson et al., 2018). Integrated care can be viewed in three arenas. The **individual level**, which includes personal care pathways and coordination between professionals around a single client. The **organisational level**, which involves delivery and organisation of care for groups of patients via multidisciplinary care pathways, and the formation of agreements between health professionals and organisations about their roles and tasks. Finally, the **health system level** involves policymaking, financing, legislation and regulation (Minkman, 2012). Countries around the world have adopted various programmes to address issues across these three levels to provide continuous, cost-effective, joined-up care for patients, particularly those with chronic conditions and the elderly population (Kirst et al., 2017; Qian et al., 2017). A range of effective governance options including policy commitment to integrated care, policy levers to form effective governance and organisational structures, clear standards for care and service delivery, information management, and deploying appropriate incentives, are required to implement integrated care (Kirst et al., 2017; Nicholson et al., 2013; Qian et al., 2017). Taken together, these tools form the framework within which reforms can be successfully undertaken.

CORE COMPONENTS OF INTEGRATED CARE

Integrated care has a number of core components. Different approaches to integrated care are required for different places and programmes. In general, the successful implementation of integrated care relies on:

- Defining the target population to allow health care providers to establish working relationships to identify and target those who would benefit from an integrated approach.
- Aligning system incentives to support integrated care.
- Implementing systems of shared accountability for performance.
- Data collection and analysis to monitor operations and identify improvements to be made.
- Supporting good practice via guidelines to improve care coordination across care pathways, and reduce variations and gaps in care.
- Partnerships or mergers of physicians and management as well as linking clinical and organisational skills.
- Solid leadership driving support for integrated care across all levels of the system.
- Emphasising a collaborative culture which values and promotes teamwork and delivery of coordinated, patient-centred care.
- Development of multidisciplinary groups of health and social care professionals, while facilitating generalists to work alongside specialists to deliver care.
- Empowering and enabling patients to be involved in health care decisions and self-care.

Source: Goodwin & Smith, 2011.

5.1.2 OUR SYSTEM CHALLENGES

Despite ongoing efforts to improve Hong Kong's mechanisms of governance such as financing, regulation, accreditation, licensing and reporting, significant challenges remain in coordinating different sectors, institutions, and departments to integrate care (Yam et al., 2016). Fundamental issues persist, highlighted by numerous consultations, including an over-emphasis on hospital services, deficiencies in primary care, and concerns over whether current financing models are sustainable (Yip & Hsiao, 2006).

We must reimagine how to harmonise public and private services and capitalise on the role of governance in enabling integration at system, financial, organisational and operational levels. This will require addressing systemic imbalances from the policy level downward while realigning the system towards a more holistic approach. Primary and community care will need heavy investment while our health and social care workforce needs to be developed and empowered to work in new ways. This can only be done by establishing strong multidisciplinary teams and forging stronger links between specialists and generalists. The system needs the ability to course correct and utilise big data to derive intelligence needed to drive integration (Goodwin & Smith, 2011). We must empower patients and communities at the operational level for shared decision making to achieve person-centred care (Xu & Wong, 2017).

Hong Kong should seek to better integrate delivery of services between primary care and specialist hospital and ambulatory care and between health and social care as a matter of priority. This mandate should be enshrined in the evolution of District Health Centres (DHCs). International experience has demonstrated the efficacy of care pathways which focus on patient transitions between sites and levels of care coupled with effective information systems which fully engage patients, involving them in managing their own health (WHO/Europe, 2016b).

5.2 FORMULATING POLICY

Defining core policy components such as health protection, disease prevention, patient education, screening, monitoring clinical outcomes, and evaluation methods are key aspects in integrated care policymaking (Nicholson et al., 2013). Numerous consultations on reforming Hong Kong’s health system have been undertaken. Recommendations have largely focused on financial reforms including the rationale for user fees with the introduction of Accident & Emergency (A&E) user fees in 2002, first-day hospital admission, specialist consultation, drug charges, subsidy caps, medical savings accounts, voluntary health insurance, as well as initiatives like public-private partnerships (PPP), integrated care pathways, and other means of increasing integration between sectors and improving primary care. A variety of paths for system changes continue to emerge (Food and Health Bureau of the Hong Kong SAR [FHB], 2017c).

Box 5.3

MAJOR CONSULTATIONS ON HEALTH REFORM

Health for All – The Way Ahead	(1990)
Improving Hong Kong’s health care system: Why and for whom?	(1998)
Lifelong Investment in Health	(2001)
Building a Healthy Tomorrow	(2005)
Hong Kong’s health system – reflections, perspectives and visions	(2006)
Your Health, Your Life: Healthcare Reform Consultation Document	(2008)
Primary Care Development in Hong Kong: Strategy Document (‘Strategy Document’)	(2010)
The Second Stage Consultation: “My Health My Choice”	(2010)
The Government Consultant Report	(2013)
The Third Stage Consultation: Voluntary Health Insurance Scheme (“VHIS”)	(2014)

In 2018, FHB published the Healthcare Reform Consultation Document “Your Health, Your Life” setting out a health system reform package to strengthen primary care through delivery of continuous, preventive, comprehensive, and holistic health services.

In 2010, FHB published the “Primary Care Development in Hong Kong: Strategy Document” setting out a vision for improving primary care delivery in Hong Kong. The same year the Primary Care Office (PCO) was established under the Department of Health (DH) to coordinate private and public health service providers, as well as other stakeholders, to strengthen primary care (FHB, 2010b). The PCO is responsible for raising public awareness and understanding of the concepts of primary care and family medicine.

DH has a strategic framework, plan, and guidelines for the prevention and control of NCDs which is overseen by a steering committee (FHB, 2018e). Nine local targets for reducing NCDs by 2025 have been set, although details of the implementation plans, and evaluations of the implementation processes and outcomes, are not currently available (FHB, 2018e).

The Chief Executive pledged to strengthen primary health care services in 2017. The 2017 Policy Address proposed a pilot DHC in Kwai Tsing with a view to promote district-level primary healthcare services, medical-social collaboration, and PPPs (Lam, 2017). In response, FHB established the Steering Committee on Primary Healthcare Development to formulate strategies and implementation plans. A Working Group on the DHC Pilot Project in Kwai Tsing to advise on the development of the DHC initiative was also created (DH, 2018e). More recently, the 2018 Policy Address unveiled plans to set up more DHCs but requests for pilot tenders do not specify how DHCs will operate in relation to the Hospital Authority’s (HA) Community Health Centres (CHCs) (Lam, 2018b).

MOVING FORWARDS

Policymaking and planning in Hong Kong has taken some initial steps towards better coordination by investing resources into acute, community and primary care. Policy Addresses delivered in 2017 and 2018 emphasised cross-sector and multidisciplinary collaboration and the need to reorganise where services are delivered. The policy announcements made particular mention on greater use of the private sector and continued development towards primary and preventive care delivery. Health system regulation was also featured with the stated intention to expand statutory registration of healthcare professionals, including allied health workers, and more regulatory control over private facilities. Other priorities include manpower planning and development of Chinese medicine (Lam, 2017, 2018a).

Policy and decision making for integrated care are not the exclusive domain of government. Other kinds of governance structures and frameworks which involve key stakeholders should be considered. Joint planning is important in facilitating integrated care, particularly between primary and secondary service providers, public and private sectors, as well as health and social sectors. Joint planning includes setting goals, strategies and collective decision making across sectors which promotes flexible local health service delivery (Nicholson et al., 2013). The creation of formal agreements is an important facilitator allowing organisations and service providers “to move beyond the occasional informal partnership to serious commitment to integrated health care,” and to manage “deliverables, risk and process through collaborative business approaches” (Nicholson et al., 2013). These agreements come in many forms. Alliances in New Zealand “are tasked with planning for geographical areas and to increase coordination between primary and secondary care” (Cumming, 2011; Gauld, 2017b; Nicholson et al., 2013). Other countries have also implemented policies favouring integrated care, including putting in place necessary infrastructure to implement programs, adapting and aligning to local needs, developing care plans (and enrolling patients in them), and setting up information management infrastructure (Kirst et al., 2017; Nicholson et al., 2013).

5.3 GENERATING INTELLIGENCE

Hong Kong has a robust data-gathering apparatus which informs policymaking and actions. Information collection, analysis and sharing reveal problems and set priorities, and also provide feedback for policymaking, planning and implementation. Ensuring systems are in place to facilitate these processes is key to creating a fit for purpose health system. Generating intelligence from information to evaluate and guide integrated care is a multifaceted process. Foundational to health systems governance are needs assessment to inform planning, and quality improvement backed by information technology (IT) and electronic health records (EHR) monitoring and evaluation (WHO, 2014). Such data allow qualitative analysis of the health system and set baselines to judge the success of interventions and for continuous quality improvement (Cheah, 2001). A focus on quality improvement driven by data is key for the success of integrated health systems (Nicholson et al., 2013).

NEEDS AND SERVICE ASSESSMENT FOR STRATEGIC PLANNING

The public expects services to be accessible, appropriate, effective, and of good quality and to reflect both local and national priorities. Needs and service assessments are invaluable tools to identify and close gaps between operational realities and theoretical goals, and must precede any service shift (Wright, Williams, & Wilkinson, 1998). These assessments also direct the realignment of resources in line with population needs. This data also guides strategic planning which shapes design, implementation and evaluation of services for health (Langenbrunner, Cashin, & O’Dougherty, 2009).

Needs assessment morph from mere exercises to practical tools when there is community engagement and attention to operational realities (Wright et al., 1998). Health needs assessments are systematic methods of identifying unmet health and healthcare needs to correct disparities (Wright et al., 1998). Health needs assessment has to be complemented by assessment of the type, mix and capacity of the health services available to meet health needs of the population. The optimal input-mix of primary and community care, specialist ambulatory and in-patient hospital care, rehabilitative and palliative care would inform strategic planning of health care services. These assessments go well beyond simple measures of poor health and instead consider “capacity to benefit,” looking at, for example, whether there are available and effective interventions, as well as how they fit with system priorities. Health

needs assessments help monitor the provision and use of services while providing policymakers with proactive tools. Involving key stakeholders responsible for local services in defining objectives from the outset is fundamental and brings clarity to effective solutions to problems (Birch, Eyles, Hurley, Hutchison, & Chambers, 1993).

Hong Kong's health needs assessments are carried out by the Government and NGOs. DH is responsible for a number of health needs assessments such as the Population Health Survey (PHS). PHS is territory-wide and administered through household questionnaires and a health examination (Centre for Health Protection of the Hong Kong SAR [CHP], 2017). Carried out since 2003/2004, it collects information on population health to support evidence-based policymaking, resource allocation, provision of services and public health programmes (CHP, 2017). Other departments make use of this intelligence in their own policymaking processes. One example is the FHB's Review Committee on Mental Health which was set up in response to "The Hong Kong Mental Morbidity Survey 2010-2013" and the "Behavioural Risk Factor Survey 2014". The committee's mandate included a review of current health promotion programmes and service provision as well as mapping future directions for mental health policy and services in Hong Kong (FHB, 2017a). Additionally, the development of a refined population-based funding model commissioned by HA and conducted by the Jockey Club School of Public Health (JCSPHPC) created a model based on population needs to enable better strategic planning and resource allocation. Datasets were generated to aid understanding of local needs and allow for geographical comparisons (JCSPHPC, Faculty of Medicine CUHK, & HA, 2017). The current approaches provide the foundations for institutionalised systemic assessments for strategic programme planning, prioritisation and purchasing.

HEALTH I.T.

Developing health information and IT systems for decision making, monitoring, evaluation and accountability is essential to strengthening health systems governance (WHO, 2014). The creation of patient information systems which are responsive, accessible and share data between hospitals and primary care organisations have been identified as key facilitators of integrated care (Cheah, 2001; Kirst et al., 2017; Nicholson et al., 2013). However, barriers to integrating electronic health systems and records across providers and facilities remain due to lack of resources, engagement, and resistance from patients and providers (Hsu et al., 2014; Kruse, Kristof, Jones, Mitchell, & Martinez, 2016).

Electronic health record (EHR) systems have been established around the world to facilitate the provision of healthcare. EHR systems confer a number of benefits, including healthcare practitioners access to "the lifelong health records of a patient in a timely manner, avoiding duplicated tests and treatments," and, "[facilitating] holistic care of a patient by family doctors on the one hand, and referral to specialist doctors on the other" (Legislative Council of the Hong Kong SAR, 2018a). EHR also empowers patients in making decisions about their own healthcare and health trajectory and, in combination with big data technology, supports "the analysis of anonymous data in the system, which in turn will enhance the capability of governments to formulate policies on disease surveillance and public health" (Legislative Council of the Hong Kong SAR, 2018a). Additionally, EHR sharing has the potential to bolster public-private collaboration and partnerships, "which is particularly important to alleviate the congested public healthcare system in Hong Kong" (Legislative Council of the Hong Kong SAR, 2018a).

While EHR offers many benefits with regards to better integrating services between multiple providers while improving care coordination for patients, it requires strong governance mechanisms to ensure patient data remains secure. Support is also needed for service providers to fully realise the technology's potential. A territory-wide EHR Sharing System (eHRSS) has been in operation in Hong Kong since 2016, and provides the infrastructure needed, "for access and sharing of participating patients' health data by authorised healthcare providers in both the public and private sectors" (Legislative Council of the Hong Kong SAR, 2018a). This system fosters collaboration between the public and private sectors while improving continuity of care and quality of healthcare delivery (Legislative Council of the Hong Kong SAR, 2012a). Concerns linger over a number of issues, as highlighted in a 2012 public consultation, including privacy protection, database security, patient access, and the protection of patients' data rights. There is particular consternation over how data is shared across the EHR platform (Legislative Council of the Hong Kong SAR, 2018a). Other identified challenges include relatively low usage by private clinics, with only one-third of private clinics joining the scheme as of July 2018, attributed to resource constraints, cultural factors and ownership issues (Legislative Council of the Hong Kong SAR, 2018a).

BIG DATA

The use of big data offers significant scope for population health intelligence gathering. The Government plans to establish a big data analytics platform within HA (Lam, 2017). The proposed platform will allow researchers to access anonymous medical records as a research and planning tool (Cheung, 2018). Currently, big data's true potential in supporting health system integration and person-centred care is not fully developed in Hong Kong. Our future vision encompasses data collected over a life course incorporating the preventive health data collected by DH to create a truly individualised health record to which each person has access, so they can act as their own care coordinator in the coproduction of health. We still need to develop the information networks, platforms and applications to facilitate these innovations. Further investment in this area will lead to improvements but as the technology continues to mature evidence of big data's true potential to improve population health and health system efficiency remains limited.

5.4 IMPLEMENTING POLICY: TOOLS AND LEVERS

A range of policy levers and tools can effect change throughout the health system. Finding the right tool mix to bring together delivery of services, particularly across primary and secondary care and also medical and social sectors, is an important priority and the key to transforming into an integrated and coordinated health system (Goodwin & Smith, 2011).

The Government has a number of programmes and pilots in place which aim to strengthen chronic disease management in primary care settings. Some of the projects are run in the public sector and others use PPPs to involve private and NGO providers in the delivery of services, for example: Risk Assessment and Management Programme (RAMP), Patient Empowerment Programme (PEP), General Outpatient Clinic Public Private Partnership Programme (GOPC-PPP) and the Elderly Healthcare Voucher Scheme (FHB, 2010a). This approach of projects targeting particular population segments or illnesses is used in many countries as they move towards more integrated care.

Key aspects to consider include how to align system incentives (financial, regulatory, or accountability-based) and how to promote common values and platforms through which integrated care can scale up and flourish (Goodwin & Smith, 2011). Kaiser Permanente (KP) and the Veterans Health Administration in the United States (US) are two examples which follow this approach. The US-based entities utilise IT, contracts, budgets, performance monitoring and quality outcomes to achieve integrated care systems (Goodwin & Smith, 2011). Others such as the United Kingdom's Torbay Care Trust work on a smaller scale and use integrated care teams, pooled budgets, defined service localities and health and social care coordinators to achieve integrated care (Goodwin & Smith, 2011).

5.4.1 LEVER ONE: FINANCING, PAYMENT, AND PURCHASING

Financing is an effective lever to implement widespread reforms, given its existing influence within health systems (Gottret & Schieber, 2006; Roberts, Hsiao, Berman, & Reich, 2009). Financing levers and financial incentives must be aligned with service delivery goals in seeking health system change (WHO, 2015b). Decisions about which organisations to pay, what to pay for, and how much to pay can be used to generate strong incentives to influence organisational and individual behaviour (Roberts et al., 2009). As many countries work to reorient towards more primary care-led integrated person-centred care health systems, different financing and payment tools to steer system change have been explored. Tools include capitation, performance-based payment schemes, provider incentives and mechanisms to hold providers accountable. With regards to integrated care programmes, international experience suggests capitation and salaried staff programmes best facilitated integrated care, proving superior to fee-for-service payment (Kirst et al., 2017). Payment can also be used to facilitate changes in how service providers and organisations relate within and between each other. Alternative Payment Plans are used in Canada delegate tasks between physicians and their teams, which frees each side to focus on patients with complex needs (Nicholson et al., 2013).

The Hong Kong Government's strategic healthcare system goals are: to improve primary care, recalibrate the public-private mix, and relieve pressure on the public system (FHB, 2008b; Yin & He, 2018). By investing in primary healthcare services the Government hopes to achieve a healthier community and greater user satisfaction at lower cost. The public-private sector imbalance in service demand and supply has impeded collaboration and healthy competition between the public and private sectors. This also limits service choices for many members of the public.

Despite an impetus for reform and the number of financing strategies and reforms proposed since the 1990s (see **Table 5.1**), limited action has resulted. This is due to a number of interrelated factors including strong public opposition to schemes with mandatory or compulsory components, and strong vested interests from the professional and private sectors (Luk, 2010; Yin & He, 2018).

TABLE 5.1

Report title	Suggested reforms	Outcomes
“Towards Better Health” (1993)	<ul style="list-style-type: none"> • Percentage subsidy approach. • Target group approach. • Coordinated voluntary insurance. • Prioritization of treatment. 	No majority consensus in the community, reforms shelved.
“Improving Hong Kong’s Health Care System: Why and for Whom?” (Harvard Report, 1999)	<ul style="list-style-type: none"> • Health Security Plan (HSP), contributory pay-as-you-go scheme funded by employers and employees, contributing to both in- and out-patient treatments in public and private sector. • Savings Accounts for Long Term Care (Medisage), mandatory long-term care insurance policy, employer and employee contributions. 	Reforms deemed too radical, not well received by the public, reforms shelved.
“Lifelong Investment in Health” (2001)	<ul style="list-style-type: none"> • Maintenance of government funded model. • Rationale for changes in structures of fees and charges. • Individual health protection accounts for acute care (age 65+). 	<ul style="list-style-type: none"> • Accidents and emergencies, first day hospital admission, specialist consultation and drug charges instituted. • No active support for health protection account.
“Your Health, Your Life” (2008)	<p>Identified six options for public consultation:</p> <ul style="list-style-type: none"> • Social Health Insurance. • Increase user fees. • Medical Savings Accounts. • Voluntary Private Health Insurance. • Mandatory Private Health Insurance. • Personal Healthcare Reserve. 	No consensus or majority support for any single option; demonstration of wide commitment to the values of: ‘individual need, voluntary participation, equity, freedom to choose, employer responsibility’.
“My Health, My Choice” (2010)	<ul style="list-style-type: none"> • Health Protection Scheme (HPS) to standardise and regulate voluntary private health insurance. 	Put forward to second stage public consultation.
“Consultation Document on Voluntary Health Insurance Scheme” (2014)	<ul style="list-style-type: none"> • HPS – renamed Voluntary Health Insurance Scheme (VHIS) as a supplementary financing arrangement to complement public services and address public-private balance. • VHIS to regulate individual indemnity hospital insurance. • VHIS to set up regulatory structures requiring insurers to comply to minimum requirements (standard plan). • Recommend establishing a high risk pool. • Establish a regulatory agency under the FHB to supervise implementation and operation of VHIS. • Establish a claims dispute resolution mechanism. 	Broad support for VHIS, and for most of the minimum requirements; however, disagreement over features including: high risk pool, coverage of pre-existing conditions, portable insurance policy.

HEALTHCARE REFORMS AND THEIR OUTCOMES IN HONG KONG

Sources: FHB, 2008b, 2010a, 2014a; Health and Welfare Bureau, 1993; Health and Welfare Bureau of the Hong Kong SAR, 2000; The Harvard Team, 1999.

Commissioning and strategic purchasing

In recent years there has been a growing sense that simply spending more money might complicate health-system ills (Williams, 2007). The 2010 WHO Report on “Financing for Universal Coverage” emphasised that raising sufficient money for health is imperative but will not ensure universal coverage (WHO, 2010).³ The key is to ensure resources are used efficiently (Honda, 2014). There needs to be a continual processes of needs assessment, planning, and monitoring.

The UK’s National Health Service (NHS) defines commissioning as “the continual process of planning, agreeing and monitoring services” (NHS England, 2015). This process covers a broad range of actions including health-needs assessments, designing patient pathways, negotiating contracts and quality assessment (NHS England, 2015). Integrated budgets and integrated commissioning have been proposed around the world to support shifts in the service delivery model and to link budgets to better integrated medical and social care (Humphries & Wenzel, 2015). The UK’s experience suggests countries will need to embrace integrated and strategic commissioning backed by governance arrangements such as long-term contracts and defined outcomes for service delivery as they reorient models of care (Ham & Alderwick, 2015). For example, Integrated Personal Commissioning (IPC) and Personal Health Budget (PHB) programmes are being undertaken in the NHS (England). Both programmes are aimed at integrating services around people instead of around organisations to facilitate self-management of long-term conditions (Hall, 2017). This reorganisation ensures systems of integrated medical and social care develop in ways which are sustainable while fostering closer integration between all health system levels and actors.

Strategic purchasing can inform the distribution of resources throughout the health system. The purchaser becomes more informed over time and can employ tools allowing them to optimise their actions. Theoretically, strategic purchasing can lead to more cost-effective provision of healthcare services while maximising population health (Klasa, Greer, & van Ginneken, 2018). Strategic purchasing deals with what should be purchased, from whom and how and what payment should be made. Policymakers must identify services to be purchased based on population needs, national health priorities and cost assessment. Service providers must also be selected based on quality, efficiency and equity. Finally, contract arrangements and provider payment mechanisms should create incentives for cost-effectiveness. Addressing the aforementioned factors creates different demand on all parties including citizens, purchasers, providers and government which all hold varying interests and motivations. Purchasing in Hong Kong is often performed through PPP mechanisms but at present no systematic tool exists to review the overall development of these mechanisms (Audit Commission of the Hong Kong SAR, 2012). Further complicating Hong Kong’s purchasing regime is the compartmentalisation of funding, purchasing and service delivery. There is a lack of clarity on who is responsible for strategic purchasing and how it should be done as well as lack of integrated, transparent and empirical clinical data (Education Bureau of Hong Kong SAR, 2015).

³ Recognition of both existing and likely future fiscal pressures facing all countries leads WHO to conclude that health systems must give increased attention to improving the efficiency of resource use. There is no excuse for not attempting to get the most (in terms of progress on policy objectives) from the public resources that are spent. While there will never be enough funds to satisfy all the needs of a health system, making better use of the resources that are available is the principal means to lessen the severity of sustainability tradeoffs.

STRATEGIC PURCHASING: THE EXPERIENCE IN ENGLAND

England has incorporated strategic purchasing into the commissioning cycle for health services since 1991. Stewardship, strategic leadership and funding for both health and social care rests with DH. It allocates taxed-based funding to NHS England, an independent body at arm's length to the Government, tasked with setting priorities to improve health and care outcomes.

NHS England directly commissions services including primary care, specialised services (e.g. organ transplantation, pulmonary hypertension and cystic fibrosis) and some public health services (e.g. screening and immunisation). NHS England also allocates funding to 209 localised Clinical Commissioning Groups (CCGs), GPs and other health professionals which commission most secondary services and play a part in the co-commissioning of GP services in local areas.

Health needs assessments are conducted by both NHS England and CCGs.

Any service provider which meets NHS standards can be commissioned. These can be NHS hospitals, social enterprises, charities or private sector providers (Adlington, Finn, Ghafur, Smith & Zarkali. 2015; NHS, 2016). Primary care was predominately provided by private GPs (66%) while 3.6% of hospital services was provided by private hospitals in 2013 (Arora, Charlesworth, Kelly & Stoye, 2013).

Health coverage is universal. All residents in England are automatically entitled to largely free at the point of use of NHS care, while private insurance can enable more rapid and convenient access to care.

Payment mechanisms used in health services across England include block budgets, capitation, case-based payments and fee-for-service. Payment for results (PbR), an example of case-based payment system, accounted for 60% of the total income received by all NHS trusts and 67% of acute income in 2014/15 (Lafond, Charlesworth & Roberts, 2017).

The Care Quality Commission (CQC) ensures basic standards of safety and quality through provider registration, and monitors care standards achieved. It can shutter services if serious quality concerns are identified (Mossialos, Djordjevic, Osborn, & Sarnak, 2017).

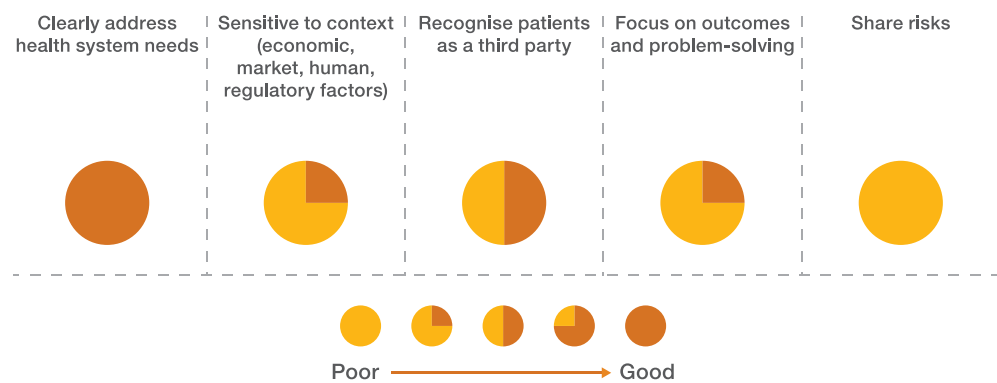
Sources: Arora, et al.,2013; Adlington et al., 2015; Lafond et al., 2017; Mossialos, et al.,2017; NHS, 2016.

Payment

The Hong Kong Government has undertaken efforts to use purchasing and payment to alter how services are delivered in an effort to address challenges facing the health system. Focus has been directed towards promoting PPPs to foster greater collaboration between the public and private sectors and to provide greater service choice and quality to individuals while reallocating demand and better utilising available resources in both spheres (FHB, 2008b; Lai, Kuang, Yam, Ayub, & Yeoh, 2018).

PPPs have been launched by HA, DH and FHB targeting different services and users. The aim of PPPs is to purchase primary care and hospital services from the private sector. Much has been touted on the significant potential of PPPs in healthcare, yet Hong Kong's PPP programmes predominantly address short-term demand and are modest in scope. Other factors which hold enormous untapped value for Hong Kong's PPP initiatives have not been considered (Figure 5.1) (Quality HealthCare Medical Services Limited & Asia Care Group, 2018). For instance, Hong Kong's current PPPs do not employ any form of meaningful risk-sharing. Models of demand-side financing have been implemented but the limitations of demand-side financing include induced demand, unfair pricing and initially, a low uptake rate (Quality HealthCare Medical Services Limited & Asia Care Group, 2018; Yam et al., 2011). Risk sharing remains a critical area for development in Hong Kong's PPPs environment.

FIGURE 5.1



PROPOSED FIVE ATTRIBUTES OF SUCCESSFUL PPPS IN HEALTHCARE

Source: Quality HealthCare Medical Services Limited & Asia Care Group, 2018.

Furthermore, existing PPPs are small in scale and launched as pilots with limited plans for extension beyond initial two-to-three year runs. PPPs are treated as stopgap measures to address identified service shortfalls and, while useful, we need to identify ways forward to formalise these pilots into longer scaled up running services. There are risks that experience and momentum gained during these pilots will be lost, be it collaborative links between HA and its partners or other factors. As a consequence it has been difficult for key stakeholders, including patients, healthcare providers and NGOs, to develop lasting commitments and confidence in PPPs.

5.4.2 LEVER TWO: RE-WORKING ORGANISATIONS-CONTRACTING AND NETWORKING

If primary care is to function as the hub of integrated service delivery then a number of governance mechanisms are needed to ensure primary care hubs operate effectively and coordinate with service providers and patients across multiple levels and sectors of care.

Networking, group practice, and contractual relationships bring organisations and services together into integrated systems (Hutchison, Levesque, Strumpf, & Coyle, 2011; Suter, Oelke, Adair, & Armitage, 2009). The creation of primary care networks (PCNs) is an important stage in the development of integrated care in many countries. In Canada support for the development of networks and group practices are key aspects of broader reform strategies and “provided critical mass that enables quality improvement, 24-hour access and economies of scale” (Hutchison et al., 2011). The formation of care organisations is often achieved with the use of other levers, particularly development of strategic alliances and partnerships with stakeholders, backed by financial incentives and accountability mechanisms developed through policy. New Zealand’s Integrated Care Networks were established in the early 1990s and were superseded by Primary Health Organisations in the early 2000s. These networks, “allowed meso-level organisations to begin to play a role in strengthening primary care services and promoting more integrated care” (Cumming, 2011). These organisational shifts are supported by wider system changes. For example, the introduction of full capitation funding of primary care in New Zealand resulted in “taking the focus away from general practitioner primary care service delivery and potentially enabling a wider range of providers to deliver primary care services” (Cumming, 2011).

These kinds of organisational structures can be used to bridge the provision of services across primary and secondary providers. In Australia, Primary Health Networks were formed and charged with determining population needs and commissioning services with a focus on coordination of care across primary, acute, social, community and public health care services. This was further facilitated by the creation of hospital networks called Local Hospital Networks or Health and Hospital Services in Queensland which oversee operations for public health and hospital services (Nicholson et al., 2018). New UK care models such as the Multispecialty Community Providers (MCP) and Integrated Primary and Acute Care Systems (PACS) were developed to facilitate integration and coordination of care throughout the health system (NHS England, 2016d, 2016b). GPs practice under the MCP model form networks or federations and collaborate with other health and social care professionals to provide services outside of the hospital setting (The King’s Fund, 2018). MCPs seek to redesign care and align it with local needs and circumstances. They work towards being commissioned such that, “money flows and contracts and organisational structures all actively help... staff” (NHS England, 2016d). MCPs are not bound to a fixed contractual framework. Some may work as virtual MCPs with alliance agreements binding individual providers and commissioning contracts. Others are partially integrated, aiming to achieve operational integration between the MCP and GPs while others are fully integrated and operating with a single whole-population budget across all primary medical and community based services (NHS England, 2016d). MCP contracts can be held by a wide range of organisations including community interest companies, limited liability companies, partnerships or by statutory NHS providers (NHS England, 2016d).

Like a number of other countries, Hong Kong has a primary care landscape dominated by independent solo and small-group practices. This configuration makes development of primary care governance mechanisms much more challenging (Hutchison et al., 2011). Mechanisms like contractual agreements, networks and federations have been used overseas to link primary care providers with other service providers. Contracts serve to formalise collaboration and sharing of resources while fostering lines of collaboration between providers and health authorities (Hutchison et al., 2011). More generally, supporting inter-professional and inter-organisational collaboration via existing formal and informal networks to encourage a patient-focus can be beneficial. Using incentives, including compensation, financial incentives, and improved quality of life will facilitate physician integration (Suter et al., 2009).

5.4.3 LEVER THREE: REGULATION

In order to successfully implement integrated care a regulatory framework which supports and encourages integration needs to be in place (Goodwin & Smith, 2011). Regulatory frameworks cover many aspects of the health system. In Hong Kong, recent regulatory changes include the Private Healthcare Facilities Bill (PHF Bill) which was introduced into the Legislative Council in 2016 and the Voluntary Health Insurance Scheme (VHIS), due to be launched in 2019. Both aim to regulate the operation of the private sector to ensure more transparency, sustainability and lower the cost of care.

The PHF Bill replaces the Hospitals, Nursing Homes and Maternity Homes Registration Ordinance (Cap. 165) and the Medical Clinics Ordinance (Cap. 343). It covers price transparency, complaints management, and introduces regulatory measures to target breaches of the law and of licensing requirements. The legislation also sets regulatory standards for private health facilities including core standards, procedure-specific standards and standards for medical clinics (Legislative Council of the Hong Kong SAR, 2017b). Underpinning this regulatory change are concerns about high-risk medical procedures performed in ambulatory settings (Legislative Council of the Hong Kong SAR, 2018b). While the new Bill aims to provide a new regulatory regime for hospitals, day centres, clinics, incorporated bodies and health services establishments, it exempts small practices operated and managed by less than five registered medical practitioners or dentists and solo-practice clinics (Legislative Council of the Hong Kong SAR, 2018b).

To relieve pressure on the public sector and broaden sources of healthcare financing, FHB aims to launch VHIS in early 2019. VHIS' aim is to encourage people to use private healthcare services through regulating hospital insurance, relieving pressure on the public healthcare system in the long run (Government of the Hong Kong SAR, 2018a). Two types of certified plans underpinned by a set of minimum requirements have been proposed. A Standard Plan provides basic protection while Flexi Plans provide enhanced benefits. Annual tax deductions with a ceiling of HKD 8,000 per person are offered as an incentive for the public to subscribe to VHIS (FHB, 2018f).

VHIS faces numerous challenges. Recent reviews raise a host of concerns including the modest role of insurance in current healthcare financing, relatively small impact on household OOP spending, and the small role of insurance in shifting the burden of care away from the public sector (FHB, 2018c; Research Office of the Legislative Council Secretariat, 2018; Yin & He, 2018).

Health I.T.

The Government's legal framework governing the eHRSS since 2016 provides protection for data privacy and system security (Legislative Council of the Hong Kong SAR, 2018a). Participation in the eHRSS is voluntary, with patients able to enroll in person or online. Participants are required to give joining consent and sharing consent to allow registered healthcare practitioners to access their health records (Langins & Borgermans, 2015). Patients may revoke their sharing consent with organisations at any time (Legislative Council of the Hong Kong SAR, 2018a). This privilege does not extend to specific individual medical professionals employed by authorised healthcare providers (Legislative Council of the Hong Kong SAR, 2018a).

The Government proposes EHR sharing in-line with existing regulations governing medical records within HA. “Access control will be implemented to ensure that only relevant healthcare professionals could view records on a need to know basis” (Legislative Council of the Hong Kong SAR, 2012a). Other concerns around EHR include the role and function of the eHRSS operating body, and its power and responsibilities. Issues include whether it should be empowered to conduct audits on the electronic record systems of participating providers, and how information of the deceased should be handled. Suggestions for improvement include improving the transparency and accountability of the EHR operating body, determining which stakeholders should be involved in its governance structure, and whether an independent governing body “could better ensure effective implementation and enforcement” (Legislative Council of the Hong Kong SAR, 2012a).

Digital technologies will pose new regulatory challenges. The entry of tech companies and new technologies into the health sector will lead to transformations in how we think about health care and how it is delivered. Mobile apps, wearable devices, new ways of connecting patients to providers and information sharing are rapidly emerging (Richman, 2018). These technologies pose regulatory challenges in terms of product safety and quality, and how they mesh into the wider health system to achieve the outcomes we seek. Health system regulators need to determine if AI-guided medical software is “practicing medicine,” if health tracking apps are “medical technologies,” and how we approach responsibility and accountability when care is no longer delivered solely in-person by healthcare professionals (Richman, 2018). The legality of virtual consultations such as those offered by Babylon Health in the UK will need to be established (Babylon Health, 2018).

5.4.4 LEVER FOUR: CREATING AND MANAGING THE HEALTH WORKFORCE

Our final policy lever to change the health system relates to the funding and incentives offered to the health workforce (Hutchison et al., 2011). The Government can influence the availability of health professionals by fully funding or subsidising training to reshape our health system. The Hong Kong Government is increasing the number of University Grants Committee placements by more than 150, according to the 2018 Policy Address. This includes postgraduate placements in dentistry and a higher quota for postgraduate clinical psychology. In addition, more than 1,300 students will be subsidised to undertake self-financed programmes in healthcare disciplines (Government of the Hong Kong SAR, 2018g).

Strengthening the role of regulatory bodies is an important step in ensuring the health workforce is fit for purpose (Langins & Borgermans, 2015). The Government will further develop regulation of healthcare professionals to improve training and quality. In particular, the Government will develop ways to mandate continuing medical education to maintain professional competency. It will also create a statutory registration regime for accredited professionals to improve clinical supervision and specialty training within HA. Regulations for allied health professions will be reviewed (Government of the Hong Kong SAR, 2018g).

5.5 COLLABORATION AND COALITION BUILDING

Integrated care relies heavily on stakeholder collaboration (van Rensburg et al., 2016). A number of mechanisms to facilitate closer collaboration and coalition building have been developed in countries pursuing integrated care. The formation of Joint Boards “has led to greater appreciation of shared vision and values of organisations and the system as a whole,” while nurturing trust and collaborative decision making (Nicholson et al., 2013). Shared planning and collaborative decision making brings together stakeholders in the collective effort of determining how best to integrate services. Other micro-level strategies include multi-level partnerships between clinicians and management in primary and secondary care to promote care coordination across health system levels (Nicholson et al., 2013). Clinical governance has been deployed in a number of countries to facilitate inter-professional collaboration and ease challenges associated with multidisciplinary teamwork by establishing “shared referral, assessment, and management guidelines” (van Rensburg et al., 2016). Broad agreements on clinical guidelines also fosters cooperative work among health professionals and aligns different work cultures. Furthermore, shared clinical priorities such as multidisciplinary clinician networks and team-based approaches establish “pathways across the continuum to optimise care” (Nicholson, Jackson, & Marley, 2014).

Hong Kong has some collaborative mechanisms in place to integrate medical and social services. A high-level of engagement and continuing dialogue with stakeholders facilitates effective collaboration between public and private sectors and across different levels of care. However, this is not consistent across all programmes. In some a lack of engagement by stakeholders, particularly the private sector, in planning and logistic arrangements has been noted. This has resulted in an imbalance of power and the perception that programmes were operated using a top-down approach (E. L. Wong et al., 2015).

EHR

In Hong Kong, EHR can lead to better collaboration between the public and private sectors and across different levels of care. A steering committee comprising healthcare professionals, groups and organisations from the public and private sectors has been established for the planning, implementation and management of the EHR programme (Legislative Council of the Hong Kong SAR, 2012b). The Government took the lead, investing public money into developing the system while launching various publicity measures to engage all stakeholders, while HA and private sector enterprises provided technical support (Legislative Council of the Hong Kong SAR, 2016). Stakeholder collaboration in the eHRSS will ensure effective early treatment thereby reducing the costs of secondary and tertiary care while improving the general health of the population. Despite these steps, inadequate information sharing between medical and social service providers may still lead to miscommunication between service providers. The lack of technical and financial support for private providers also hinders their more active participation.

5.6 ACCOUNTABILITY

Accountability is an essential feature of any health system, yet, difficult to delineate. At its core, accountability is the requirement to answer questions about decisions or actions that have been taken. In integrated systems, accountability “constitutes a complex web involving many actors across service sectors” (Suter & Mallinson, 2015). There are key players at all levels of the health system, from policymakers, government ministries to service end users. While integrated care requires the development of cross-organisational and cross-sectoral relationships, these linkages can create problems, particularly as relationships of accountability between organisations for service, quality, and outcomes may not be clearly defined (Suter & Mallinson, 2015).

Though there are challenges associated with accountability for integrated care, there are also opportunities for positive change, particularly with respect to greater involvement of the public in planning services according to local needs and desires, and in monitoring the quality of the system (Suter & Mallinson, 2015). Having formal accountability mechanisms in place (including networks of control, oversight, cooperation and reporting), and the public involved in ensuring accountability requires establishing “clearly articulated structures and processes for engagement” as well as transparency in how public input is used to inform system change (Suter & Mallinson, 2015). Bringing the public onboard requires removing barriers and incentivising patient and public engagement while facilitating self-management of health alongside healthcare professionals (Suter & Mallinson, 2015).

There are five broad accountability components: legal, financial, professional, political and public. Actions are taken by stakeholders across these components to improve accountability throughout the health system. Improving accountability for integrated care requires health systems to develop legal frameworks and compensation models which support cross-sector and inter-professional collaboration. This can include development of policy and legislation which supports joint or shared budgeting and the formation of accountable care organisations, the allocation of funds according to need, and the development of oversight mechanisms to ensure organisations deliver on their responsibilities (Suter & Mallinson, 2015). At the organisational and service delivery level, accountability mechanisms should be put in place to support integrated care. Performance monitoring and establishing criteria to measure performance across organisations and across the care continuum are two possible tools. Health workers should also have strong accountability measures in place, including post-licensure credentialing, to develop skills and competencies while facilitating work in multidisciplinary teams and their own practice (Suter & Mallinson, 2015).

Strengthening public accountability is a key strategy of integrated care systems. The principle of shared decision making is commonly deployed, as in the NHS (NHS England, n.d.-b). Other strategies involve embedding the public in strategising and policymaking throughout the health system and developing “comparable metrics to appraise how well public involvement policies and activities are progressing across health service organisations and better methods for assessing quality of relationships” (Suter & Mallinson, 2015).

Various mechanisms are in place in Hong Kong to enable accountability and transparency within the health system. The public system has strong formal accountability measures in place. The HA is accountable to the Government through the FHB, though it is highly autonomous in hospital operations (Government of the Hong Kong SAR, 2018d). Clinical audits ensure clinical governance and continuously improve professional care within the public healthcare system, and are conducted by hospital clinicians at the hospital and cluster levels. The Coordinating Committees and Central Committees provide oversight at a system-wide level. Moreover, clinical management teams of multidisciplinary healthcare professionals will be established to closely supervise staff and provide a mechanism for performance peer review. Clinical management teams are responsible for conducting quality assurance activities (FHB, 2015).

One of the HA's primary monitoring tools are FHB, 2015). These include clinical services indicators such as waiting times for specialist outpatient clinics, human resources and finance. Further refinement of these tools must be considered to ensure effective monitoring and reporting and to help HA align itself with the goals of integrated, person-centred, primary-led care. To ensure care provided by the organisation is person-centred, HA regularly conducts a Patient Experience and Satisfaction Survey to understand the perspectives of patients and ensure that services provided meet the needs of the population. HA is also subject to public scrutiny through a two-tiered complaints system. In the first-tier, hospitals are responsible for dealing with complaints and liaising with the complainant. If the complainant is not satisfied they can appeal to the Public Complaints Committee. The committee is made up of people from a wide range of backgrounds such as medical practitioners, patient group representatives, academics, judges, lawyers, religious workers and social service administrators (HA, 2009).

Private sector accountability is weaker, although the Government is undertaking efforts to address this through the PHF Bill. The Bill will also create a two-tier complaints management system to handle complaints against PHFs in Hong Kong. It is expected the complaints management system will enhance the corporate governance of PHFs by strengthening the role and rights of patients in the private healthcare system (FHB, 2014b). Inadequate performance monitoring tools remain an issue in the private healthcare system. Private hospitals report to DH on information regarding services utilisation, births, deaths, disease classification, staffing situation, audited financial reports and any other information required by DH but such reporting is not statutory and some essential safety and quality indicators are omitted (FHB, 2014b). Private hospitals are required to keep comprehensive medical records for each patient and draw up policies for handling, storage and destruction of records in order to ensure security and confidentiality of personal information. There is no explicit requirement for aggregation of data for the purposes of analysis and quality monitoring (FHB, 2014b). As a consequence, documentation and record keeping of patients in the private healthcare system is relatively basic (Chan, 2016). In combination with a lack of outcome measures to monitor the effectiveness of service, private sector accountability remains poor.

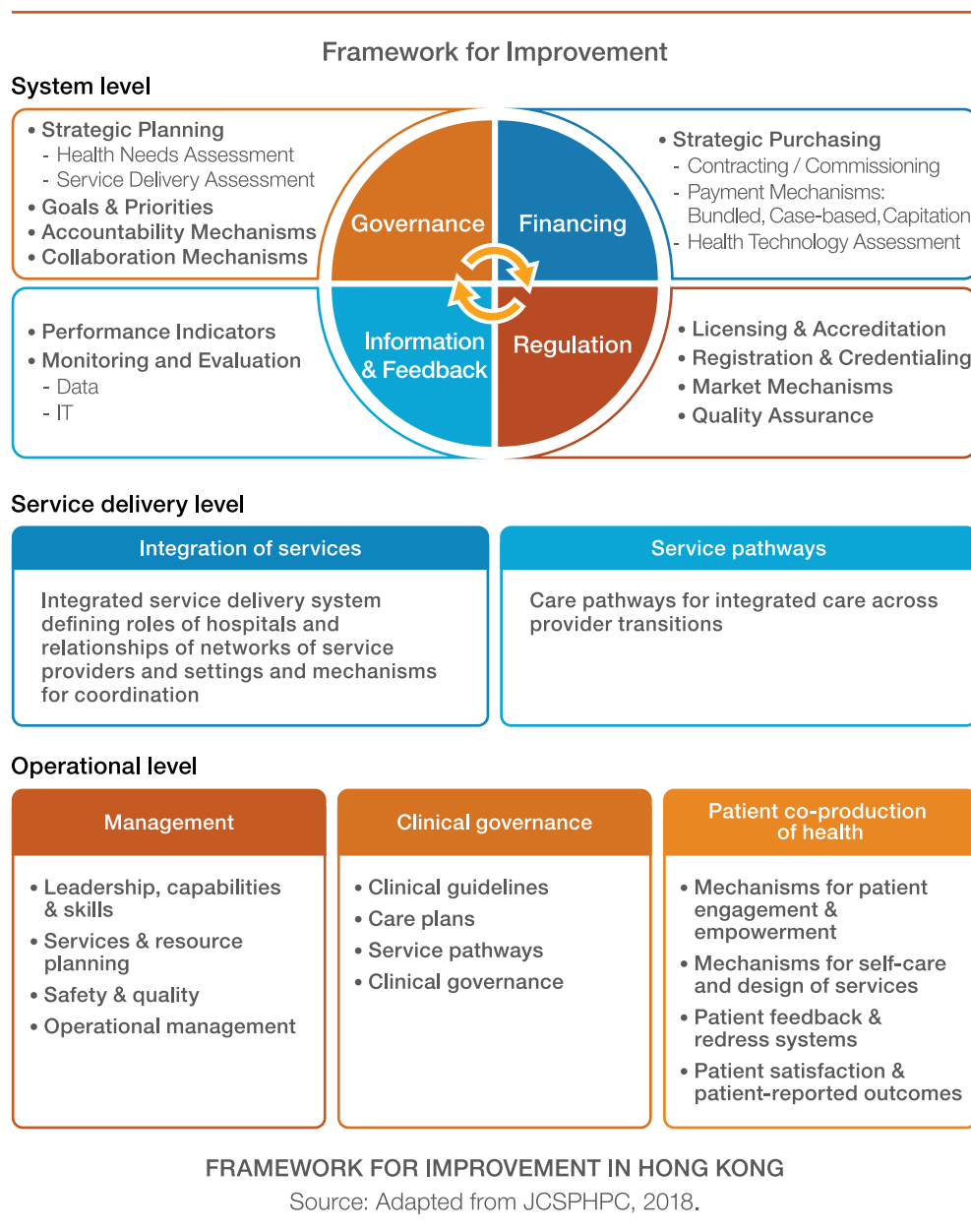
The lack of private sector pricing standardisation and transparency remains a point of contention for patients and families. Families have no way to check whether, or how much private healthcare facilities are overcharging. In 2014, 60% of 115 complaints about private hospitals to the Consumer Council were related to the lack of standard fees (Chan, 2016). There is strong public support for improving price transparency, and the Government together with the Hong Kong Private Hospitals Association (HKPHA) launched a pilot programme for private hospital price transparency in 2016 (Government of the Hong Kong SAR, 2016a). The PHF Bill draws on the pilot scheme experience and will require price transparency in private healthcare facilities (Legislative Council of the Hong Kong SAR, 2017b). However, analysis of the pilot scheme revealed significant inconsistencies in data published among private hospitals and there is little evidence that pricing data in its current form will help inform decision making.

Moving forward and establishing robust accountability mechanisms for primary care-led integrated person-centred care will require action by stakeholders across all levels of the health system. Hong Kong faces particular challenges in ensuring primary care and social care develop robust systems of accountability be it through direct oversight, regulatory measures, enforcement of financial transparency or other methods. Only then can services offered align with the wider goals of the health system while maintaining expectations of quality and safety (Jupp, 2015). Continuing to invest in systems to monitor and record quality and outcome indicators will be key as will continual reassessments of indicators to capture the right data (Jupp, 2015).

5.7 CONCLUSION

Health governance is the touchstone for creating a primary care-led integrated person-centred care health system. Integration needs to be strengthened across multiple service providers and sectors, including non-health sectors like the social sector. Mechanisms to foster greater integration between points of care as well as medical and social sectors need to be put in place (**Figure 5.2**). International case studies serve as a roadmap in some cases, but in Hong Kong initial steps need to be further scaled up and taken forward in ways that will promote and enhance the integration of care throughout the health system.

FIGURE 5.2



The Government should take primary care-led integrated person-centred care as its foundational basis for health system policies. This requires a careful examination of its role and positioning in creating change throughout the system (**Figure 5.2**). The Government needs to consider how to capitalise and leverage governance, leadership, health services delivery, financing, resources and organisation to achieve a better integrated health system. Programmes already in effect should be adapted to work more cohesively and to foster collaboration and coordination between primary and secondary care and between medical and social care. There are a wide range of tools and policy levers available and which have been applied but need to be scaled up or redesigned to encourage separate departments, organisations and sectors to come together and design, implement and evaluate a new health system fit for the 21st century (Jackson et al., 2008).



Chapter 6

Our Recommendations

6.1 THE CHALLENGES

The conventional model of health service delivery is unable to meet the changing needs of the population, which are shaped by population ageing, the rising prevalence of chronic illness and multi-morbidity, and the increasing resources dedicated to catering for the healthcare needs of people moving closer to end-of-life (EOL). We must urgently look into the transformation of our present health service delivery, where fundamental changes are necessary. While the public faces the tangible consequences of insufficient access to specialists and hospital care, and inadequate provision of primary care resulting in long wait times, the fundamental issue lies in the organisation and operation of the health system. Major challenges identified include:

CHALLENGE 1: THERE IS A FUNDAMENTAL MISMATCH BETWEEN HOW HEALTH SERVICES ARE DELIVERED AND THE CHANGING HEALTHCARE NEEDS OF THE RAPIDLY AGEING POPULATION

Conventional care models are disease-based, focused on acute episodic treatment, and largely hospital-centric. They lack the capacity required to cater for an ageing population that requires continuity of care from primary and community-based services to hospital-based specialist services so that person-centred chronic disease management and care is provided.

Our current health system is characterised by disease-focused, hospital-centric care. Our health system currently functions around a biomedical model of care and is oriented around the treatment of diseases, often in hospital settings. It insufficiently caters for the holistic needs of individuals and has contributed to the underdevelopment of social and community-based care. The conventional model of care runs counter to current healthcare needs, encouraging inappropriate care-seeking behaviour in hospital settings and resulting in the overburdening of the public hospital system. This is evidenced by hospital inpatient beds increasingly being occupied by high risk, co-morbid patients, such as the very sick or the frail elderly, placing new strain on hospitals and the way they deliver care. In this context, focusing investment on hospital care and less on primary and community care becomes ineffective and inefficient.

CHALLENGE 2: OUR HEALTH SYSTEM IS FRAGMENTED AND SEGMENTED

Delivery system fragmentation impacts the whole health system. Different types of care are delivered in the health system throughout the life course, in different settings and organisations by different service providers, using various processes that impact health outcomes. The organisation of these four domains of healthcare delivery are “natural fissure lines” contributing to care fragmentation in the delivery system. Our current mechanisms and levers to ensure integration across services and sectors are inadequate, presenting a major challenge for service delivery as we move towards a primary care-led integrated person-centred health system. Fragmentation also arises from the division of responsibilities between public health and health service delivery. Public health functions of health protection, health promotion, disease prevention, surveillance and response, and emergency preparedness need to be integrated with primary and specialist care. Concurrently, the fragmented nature of health and social care provision prevents smooth transitions along patient care pathways, impairing the care experience. Formal mechanisms facilitating collaboration between health and social sectors are also insufficient. Inadequacy of standard referral and hospital discharge protocols, and slow-uptake in implementation of the electronic health record (EHR) system serve as key indicators of fragmentation between hospital and community care.

Health system segmentation is attributable to the public-private divide. The segmentation of service delivery and financing between public and private sectors in our health system leads to segmentation of care, workforce distribution issues, and inequity in access. Current healthcare utilisation patterns in Hong Kong contribute to an over-taxed public hospital system with long wait times for non-emergency procedures and conditions, and heavy workload for staff.

CHALLENGE 3: OUR PRIMARY CARE SYSTEM IS UNDERDEVELOPED

Primary care is the bedrock of a health system that can better cope with challenges posed by an ageing population, rising burden of chronic illness, and geriatric problems. It serves as a key area of service delivery in providing support for better preventive, holistic and continuous care in the community. Nevertheless, primary care remains in the developmental stage in Hong Kong.

The majority of primary care is provided in the private sector and is unaffordable for certain segments of the population. While in broad agreement that health services should be oriented towards a primary care model, the public sector faces urgent and immediate needs and priorities in the provision of acute hospital-centric services. This has overshadowed the need for investment in primary care and community services. Limited public primary care access has created financial barriers for lower income populations with chronic diseases seeking care in the private sector.

Underdeveloped primary care contributes to system fragmentation and service delivery inefficiency. There is limited gatekeeping by primary care providers in the private sector which encourages patients to more easily access specialist and acute services. This, together with overspecialisation within the health system, commonly results in multiple healthcare providers within a single patient care pathway contributing to the fragmentation of health services delivery. There is a need for coordination and communication between various specialists looking after a single patient. The phenomenon of serial referral to different specialists potentially leads to problems including service overlap, gaps in service delivery, longer wait times and, in general, health service delivery inefficiency. This is particularly problematic as the prevalence of multi-morbidity, often requiring care from different professionals, increases.

CHALLENGE 4: HEALTH SYSTEM GOVERNANCE

In Hong Kong, despite ongoing efforts to improve mechanisms of governance in financing, regulation, accreditation, licensing and reporting, these functions have not been sufficiently leveraged to address the inherently fragmented nature of our health system (Yam et al., 2016). Consequently, challenges remain in coordinating between sectors, institutions and departments in efforts to better integrate care. Fundamental issues include continuous over-emphasis on hospital services, deficiencies in primary care, and a questionably sustainable financing model.

Strategic planning and priority-setting. Both the 2017 and 2018 Policy Addresses emphasised the need for more cross-sector and multidisciplinary collaboration, the need to reorganise where services are delivered (particularly to make greater use of the private sector), and to continue to develop programmes that will enhance primary and preventive care delivery. However, the initiatives remain conservative where a number of recommendations have yet to be implemented, and pilot projects need to be scaled up, institutionalised and systemised.

Financing and Payment. The public-private segmentation of financing and provision has impeded the collaboration and healthy competition between the public and private sectors. Despite the impetus for reform, and the number of different financing strategies and reforms regularly proposed, limited specific action has resulted. This is due to a number of interrelated factors including strong public opposition to schemes with mandatory or compulsory components, and strong vested interests from the professional and private sectors.

Public-Private Partnerships (PPPs). Although much has been written about the significant potential and transformational capability of PPPs in healthcare, Hong Kong's PPP programmes have predominantly been designed to address immediate medical capacity demands but have been modest in rollout. Challenges facing local PPP programmes include limited risk-sharing and implementation of demand-side interventions further induce demand, and unfair pricing rate (Quality HealthCare Medical Services Limited & Asia Care Group, 2018; Yam et al., 2011).

Accountability. Hong Kong, like other countries, faces particular challenges in ensuring that primary care and social care develop robust systems of accountability (whether through direct oversight, regulatory measures, enforcement of financial transparency, or other methods) to ensure that the services they offer align with the wider goals of the health system, and meet requirements and expectations for quality and safety. In contrast to the public system, there is weaker accountability in the private sector. Inadequate performance monitoring tools are an issue in the private health system. Additionally, the lack of standardisation and transparency in the prices of healthcare facilities in the private sector has been a point of contention for patients and families.

6.2 OUR RECOMMENDATIONS

It is of paramount importance that the Government builds an overall vision of a health system with the foundations to cater for 21st century challenges. We should consistently and progressively move our current system forward, evolving different system components to be fit for purpose. We present a vision and strategy for transformation. In moving forward, substantial organisational, structural and system changes enabled by policies are necessary. Changes need to be institutionalised and informed by ongoing monitoring, evaluation and feedback in an ever-changing health landscape that is shaped by new knowledge, emerging technologies and changing expectations. Progressing towards primary care-led integrated person-centred care entails many complex interventions targeting different interacting health system components and will involve a diverse range of stakeholders. Different parties need to work together, and with the community of persons, to achieve shared goals of change for the betterment of health system outcomes.

In moving towards a vision of Hong Kong's health system which is fit for purpose, we need to leverage on current efforts by scaling up successful programmes and building on promising new initiatives. Importantly, to achieve system sustainability, we need to make sure efforts in moving forward are systemic and strategic, and are not fragmented in the context of health system functions. With consideration of the key pressure points in our health system that impedes progress towards achieving primary care-led integrated person-centred care catering for holistic needs throughout the life course, we recommend major directions and highlight key components within the system that need to be addressed.

6.2.1 ACHIEVING PERSON-CENTRED CARE: WE NEED TO REORIENT THE HEALTH SYSTEM FOR "THE COMMUNITY OF PERSONS"

Promoting patient and community empowerment, engagement and coproduction.

Empowering patients and enhancing the role of the community at all levels of service delivery is key to achieving a person-centred system. Continuous efforts are necessary to move away from disease-focused and physician-centred care to person-centred and health-oriented care where patients are encouraged and enabled to take ownership over their own health. As an example of promoting patient empowerment, the Government should consider not only extending Patient Empowerment Programmes (PEP) to cover a comprehensive range of diseases (e.g. District Health Centres [DHC] currently plan to provide free community-based patient empowerment programmes for patients with specific disease groups including diabetes, hypertension, musculoskeletal disorders, stroke rehabilitation, hip fracture rehabilitation and cardiac rehabilitation) but also to move beyond distinct conditions to enable health and maintain capacity of the "community of persons" (Food and Health Bureau of the Hong Kong SAR [FHB], 2018a).

Care must also move beyond a focus on patients as individuals to consider the role of the community of persons which embeds resources to support health promotion and disease prevention. Initiatives, such as “networks of support” enabling self-care, peer support, and empowerment of families and communities for better health and chronic disease management within the community, need to be in place. In improving care experience and promoting coproduction of health, patient and community values need to be considered and included into care plans. At the same time, care gaps need to be identified through patient engagement and bridged as necessary. Furthermore, the community needs to become involved across the entire value chain of healthcare that comprises a spectrum of actions including planning, design, commissioning, management, delivery, monitoring and evaluation of health services.

Positioning the patient as the ‘integrator of services’ in a person health journey - enable person health pathways.

It is necessary to develop information and technology (IT) infrastructure for patient access and input. Everybody, well or unwell, should have access to and ownership of their personal health records. The idea of a “**Patient Portal**” empowers patients, motivates them to monitor their health more closely, and facilitates them to act as integrators of care. This portal should include the health information of each person with origins in the prenatal period to information captured in the Department of Health (DH)’s preventive health services, Maternal and Child Health Centres, Student Health Service, women’s and men’s health services, and Elderly Health Service over a life course. It should evolve into a “person portal”, offering potential for various online functions including conveying information that helps people to adopt healthy lifestyles and understand health risks, in addition to checking prescription information, booking appointments with healthcare practitioners or completing prescription requests.

At the same time, person-centred care services need to be coordinated across different care settings, service providers and between health and social sectors. Technology should allow patients to access and download their health records from various service providers. For example, information could be drawn from different systems used by different service providers (e.g. EHR and Social Welfare Department [SWD] record system) enabled by application software so that the person becomes the integrator of care and determines who has access to the health information.

Focus should be placed on the development and use of ‘**telehealth**’ to increase access to suitable healthcare, reduce unnecessary use of Accident & Emergency (A&E) services, and empower people to take charge of their own health. For example, apps and 24-hour triage hotlines to help people make informed healthcare choices anytime (e.g. provide suitable primary care advice/triaging for specific symptoms, receive calls from a nurse where necessary, manage health provider appointments) could be developed. Developments in artificial intelligence (AI) have the potential to empower persons in the coproduction of health.



6.2.2 ACHIEVING PRIMARY CARE-LED INTEGRATED PERSON-CENTRED CARE: WE NEED TO REORGANISE HOW SERVICES ARE DELIVERED TO STRENGTHEN INTEGRATION WITHIN AND BETWEEN PROVIDERS AND SECTORS

We advocate for the need to strengthen health system integration. To achieve holistic person-centred care, integrating service delivery should not be limited to overcoming fragmentation and segmentation within the health system, but should also involve integration between health and social care services. In recommending the need for system integration we have developed a model for **Primary Care Coordinated Community Networks interlinked with the hospital system**, in which we consider strengthening the following components of service delivery: **1) primary care in the community and its link to hospital care; 2) link between medical and social care; 3) link between public and private sectors.**

We have identified the following **key mechanisms** that contribute to the design and ultimate delivery of integrated care:

- (i) **Designing care across the life course** such that care pathways are tailored for the holistic physical, social and spiritual needs of individuals throughout the life course. This involves the development of standard clinical guidelines and protocols, involving different types of care integration, to cater for different types of care delivered in different settings by different service providers involving various processes impacting health outcomes. This could also involve the development of person health pathways integrating preventive and promotive care with curative and rehabilitative care.
- (ii) **Organising providers and settings** such that coordination can be achieved to facilitate smooth transitions throughout the care pathway. **Population and personal health functions also need to be integrated in the health service delivery system.** This could involve new service delivery structures, models and settings; establishing formal coordination mechanisms and ongoing communication channels; restructuring the health workforce for delivery of multidisciplinary care with financial incentives and professional motivators in place; and setting up necessary infrastructure and technology enabling information flow to be an integrator.
- (iii) **Managerial processes must be in place** and executed through collaboration with different sectors such that wider determinants of health are addressed and necessary resources are available. Management of resources invested is critical for efficiency and effectiveness. Mechanisms for monitoring, evaluation, review and renewal of current service models, and of the optimal healthcare service mix (primary and community care, specialist ambulatory and hospital care, and rehabilitative and palliative care) are crucial for sustainability. This should be facilitated by mechanisms for collaboration and communication.
- (iv) **Clinical governance** needs to be strengthened to monitor and evaluate how care is being coordinated in the system. Necessary frameworks and guidelines based on best available evidence need to be in place to achieve continuous improvement in health services quality and system performance to safeguard high standards of accessible care. At the same time, care plans for patients with holistic needs should be in place with well-planned service or care pathways that facilitate a continuum of care across provider transitions. Mechanisms that ensure connection, communication and coordination between different care providers in various settings should be in place. For example, this could be achieved by ensuring that **formalised discharge**

planning and post-discharge care protocols are in place for each and every patient. This will facilitate patients' transition from hospital discharge into the community and allow for subsequent medical and social support to be in place. Implementation of a hospital hub that will have individuals/ teams to coordinate patient discharge from hospitals into the community should also be considered.

Building on these key mechanisms we suggest the following action points for consideration in moving towards the provision of primary care-led integrated person-centred care:

Accelerate the pace of primary care development in Hong Kong.

Services must meet the diverse spectrum of changing care needs across the life course. Apart from curing diseases and treating the unwell, we must also cater for the needs of 'well people' by making sure adequate disease prevention and detection services, and health promotion programmes are readily in place. This is a vital function of **primary care** that needs to be substantially strengthened. Primary care is about providing care services that are **comprehensive** to address a majority of personal holistic needs, **coordinated** across different care providers and service settings for a smooth care transitions along the patient care pathway, **continuous** to cater for needs across the life course and **accessible** for patients to initiate necessary interactions with health service providers without potential barriers such as financial, geographical and language constraints (Donaldson et al., 1994). To achieve this, primary care should be delivered in a context beyond the patient-doctor relationship, considering the role of family and the community, and facilitated by an integrated service delivery system for the provision of holistic person-centred care enabled by a multidisciplinary team.

Building on the recommendation in our previous report "An Investment for the Celebration of Aging" for the formation of a Health-Enabling Network as an enabler of integrated person-centred care comprising services from different levels of care and involving various providers in the patient care pathway (Our Hong Kong Foundation [OHKF], 2016), we highlight the importance of **primary care provision** as part of the network (Yeoh & Lai, 2016). Importantly, we further emphasise some yet-to-be-achieved recommendations from the 2010 "Primary Care Development in Hong Kong: Strategy Document" (FHB, 2010b).

- Primary care is about building **sustainable partnerships** between patients and primary care providers. We recommend the Government to adopt the family and primary care doctor model to further promote and enable "**patient and person affiliation with a primary care doctor**" for **each and every person**. While individuals would have the option of changing their primary care doctor as necessary, this mechanism will contribute to promoting access to, and continuity in, primary care where potentially the same doctor will be able to consult on different health problems throughout a patient's life course.

Primary care doctors should be incentivised to provide continuous care to each patient, and to encourage the Government could consider offering incentives for this continuing doctor patient relationship for every patient they take up, and should consider a similar policy in existing publicly funded services. At the same time, the Government could consider setting robust guidelines to promote the use of existing healthcare vouchers for preventive care services. Vouchers could also be used to promote both access to primary healthcare for low income groups, enable the affiliation with a regular primary care doctor, and encourage screening for chronic diseases.

- We must urgently create, train and continually invest in the right workforce for health, and devote attention to the appropriate mechanisms (continuing education, specialisation programmes and training, and career and growth opportunities) that motivate and empower health professionals. **We need to build up a primary care workforce** that consists of a spectrum of primary care providers, which could include: life course family doctors; generalists trained to deal with multiple chronic illnesses; and primary care doctors trained to provide long-term care, care for the disabled, and palliative care. These professionals require specific training to attain a certain skill set, and such training could be provided by the Hong Kong Academy of Medicine, related professional associations and academic institutions. At the same time, trained specialists such as paediatricians, gynaecologists and general physicians could act as primary care doctors given relevant training in primary care delivery. This could be offered in the form of specially designed add-on courses and in continuing medical education. The organisation of these courses will be important in influencing uptake. Enrolment should be convenient and the course content relevant. The Government could consider funding such courses, and incentivising healthcare professionals to take on this additional training. At the same time, in the context of an ageing society, healthcare professionals should be trained to provide long-term, geriatric, palliative, and EOL care.

The Government needs to have a new basis for planning the number and type of primary care doctors required, and allocate sufficient resources accordingly - for example, it has been estimated that, assuming that the average working life of a doctor to be 40 years, it would be necessary to train at least 100 family doctors per year for a population of 7.5 million people if we are to have 1 doctor for every 2000 individuals of our population⁴. The current estimates of 50 percent of doctors working in primary care could be a useful baseline to build the capacity of these doctors for the transformation model of health service delivery.

Develop new sites of service delivery and new models of care.

Service delivery needs to be reorganised so that services can become more integrated, more accessible, and enable patients to stay in the community. This will require shifting how services in both primary care and hospitals are currently delivered so they can work more effectively together. In particular, we need to consider the development of primary care hubs. Building on the existing DHC model currently piloted in the Kwai Tsing District, primary care hubs offer multidisciplinary care and connect patients to appropriate services. They should work closely together to make best use of available resources, ensure high-quality care for all patients, and facilitate an ongoing process of building links between stakeholders in the system. This could be achieved via co-location of services (where possible), and integration of health professionals (e.g. primary care doctors and allied health professionals)

⁴ Hong Kong College of Family Physicians

and social sector and non-governmental organisation (NGO) workers, linking and promoting continuity of care between medical and community services. Specialist services could also be provided in primary care hubs to provide a one-stop service for patients with chronic disease. Careful consideration is needed for how the DHC could evolve into a hub nested within the community, linked to integrated primary care and social services, and actively involving different community partners in service delivery.

- Integrated health systems involve many parties across different settings working to provide care to cater for complex chronic conditions. In this complex context it is increasingly difficult for doctors to work in isolation. Development of primary care hubs and networks should be encouraged. We are aware of the Government's intention to include 'Network Medical Practitioners' (NMP) as part of the DHC operation model. In this context, the DHC should be positioned as the 'hub' which provides adequate support to medical practitioners with the said network. It should enable and facilitate the promotion of the 'one primary care provider for each individual' concept to allow for high quality, efficient, and effective continuous care. In the planning stages, we recommend the Government to consider making reference to the operation model of Singapore's integrated primary care networks (PCNs), which would enable individual GPs to work together; either in federations or as consortia.

In doing so, consideration must be given to methods of encouraging private GPs to acknowledge their role in primary care development in Hong Kong, in enabling care of complex chronic diseases, geriatric syndromes, and in providing life-long holistic healthcare. Support and incentives should be offered to primary care providers in the private sector to set up these networks (i.e. infrastructure, resources and funding) so that concerns over rent and losing patients can be allayed, and trust and good relationships can be built up to improve care coordination. Expanding networks to include other health professionals will facilitate the provision of holistic care for all individuals, including the provision of dental care, mental healthcare and Traditional Chinese Medicine (TCM) services. To incentivise doctors in the private sector to participate in the NMP, Government should consider introducing motivational **supply-side interventions** in addition to demand-side interventions (e.g. health vouchers to encourage public to use services). With reference to similar successful global initiatives including Singapore PCN and Ontario Family Health Teams (FHT), these may include performance payment, career structures, professionalising and fostering professionalism, additional manpower e.g. nurses/case coordinators, and hardware e.g. IT infrastructure so that data could be linked to the Electronic Health Record Sharing System [eHRSS] to enable better clinical governance for continuity of care.

- Promote primary care coordinated community hubs. We recognise that the proposed DHC model will focus on health promotion and disease prevention. We need to position DHCs correctly to maximise their positive impact in the system. Services provided by the DHC **should be horizontally and vertically integrated to ensure comprehensive care for people throughout the life course**. They should also properly leverage community resources and emphasise the role of the community in provision of care to allow for adequate support for long-term care and facilitate integrated services provision. Linkages, coordination, and communication with primary care providers (public and private) and social services is also vital. As our population ages, an array of geriatric syndromes, mental, and dental health challenges are presented among our elders as part of the natural ageing process. We therefore need suitable early detection, such as through frailty assessment at DHC.

- Reducing unnecessary hospital admission, referring patients to appropriate levels of care, and ensuring better utilisation of community resources will help relieve the burden placed upon the public hospital system. To do this, new models of care need to be adopted, such as **A&E room triage systems** using standard protocols could be enhanced and supported by the deployment of professionals (e.g. geriatricians) who are able to redirect patients who may not need acute care (e.g. category 3/4) back into the community. Furthermore, a **protocol allowing a fast-track to community services** should be considered. Post-discharge community support should be provided to all on the basis of assessed needs. This could be done by scaling up and integrating the current Integrated Discharge Support Program for Elderly Persons (IDSP), community nursing, community geriatric assessment teams (CGAT) and social services support programmes.

Rapid advances in medical technology and IT will disrupt current models and settings of care, which may impact the types of health professionals needed and allocation of resources. It is therefore crucial to establish a mechanism to harness the opportunities on the horizon to reconfigure healthcare services in the continuing quest for efficiency, effectiveness, quality, relevance, and sustainability.

Enable integration by formalising linkages between service providers and healthcare professionals.

The wide range of mechanisms fostering stronger connections between hospitals, sub-acute care providers, and primary care providers should be reviewed. Such mechanisms include the design of care pathways, clinical protocols, care plans, referral and discharge protocols, organisation of providers and settings of care (hospitals, primary care, home care, community care and long-term care), the flow of information, and engagement of patients. In particular, integration between hospitals and the community, especially primary care, could be strengthened and enabled by formal mechanisms encouraging communication and ongoing dialogue between providers. At the same time, acknowledging that current mechanisms facilitating patient transfer to different care settings and providers are generally focused on assessing clinical aspects of patients' wellbeing, thought should be given to developing specific tools assessing the holistic needs of patients, to ensure the delivery of holistic care.

- To foster care integration across the life course, current initiatives already in place should be built upon. DH currently provides a vast range of services targeting different stages across the life course. Data collected from these services could be useful in planning individualised disease prevention plans and health interventions, and could be integrated with hospital data.
- Develop a system to assess and evaluate the impact of shifting services from hospitals into the community. Modelling could be used to predict the potential impact on the need for hospital facilities as care is channeled into the community.

Continuous promotion of medical and social care integration.

More people with multiple chronic conditions need joined up services. To cater for their holistic needs we must ensure that, apart from adequate medical, nursing, and allied health support, funding is available for social care. DHCs are currently positioned to further promote integration between health and social care. To achieve this, DHCs need to incorporate social care into their services, and work closely with the community to provide support to meet holistic population needs and enable coproduction of health.

- To further promote the integration between health and social care, the Government should re-examine the funding model for long-term care. The Government needs to verify if the medical and nursing needs of present patient and client populations are met, and study shared funding mechanisms where health and social care authorities enter pooled budget arrangements and agree on integrated spending plans. This would facilitate authorities to work closely together in implementing integrated health and social care services. Research and feasibility studies would be necessary.
- Emphasis needs to be placed upon the provision of coordinated health and social services. This will allow for a seamless patient care experience and adequate support through multidisciplinary primary care hubs in community networks. This calls for micro-, meso- and macro-levels of integration, an adequate health and social care service mix within the community for patients to prevent avoidable hospital admissions, and policy alignment.

Re-evaluation of the complementary role of the private sector.

The role of the private sector in primary care, chronic disease management, frailty and geriatric syndromes, and long-term care for defined population groups should be studied and redefined to enable a more strategic role to emerge. A variety of tools could be used to engage the private sector, such as subsidies, contracting, and purchasing. Initiatives promoting coordination between public and private sectors currently exist (for example, the HA General Outpatient Public Private Partnership Programme [GOPC-PPP]). To further address the segmentation of public and private sectors, system-wide horizontal integration of primary care should be considered such that public and private sectors partner up to make concerted efforts in the delivery of primary care.

6.2.3 HEALTH GOVERNANCE IN PRIMARY CARE-LED INTEGRATED PERSON-CENTRED CARE: WE NEED TO PUT IN PLACE GOVERNANCE STRUCTURES TO SUPPORT AND ENABLE THE DEVELOPMENT OF NEW SERVICE MODELS IN MOVING TOWARDS A PRIMARY CARE-LED INTEGRATED PERSON-CENTRED HEALTH SYSTEM

There is a need to capitalise on a range of governance levers and existing programmes already in place to transition progress towards a visionary primary care-led integrated person-centred health system. **Substantive levers** including strategic purchasing, workforce planning and creation, information, financing and regulation, and **administrative levers** including organisation structures and procedures, and processes for engagement of the public in the policy decision-making process are key areas for consideration.

Lasting change requires strategic vision and the capacity to steer the health system.

We recommend health policies to focus on moving towards a primary care-led, integrated person-centred system, and plan for all relevant components of the health system (including the workforce, health IT, and health financing) from this starting point. The vision for change needs to be feasible and tap into shared values to inspire change throughout the system (World Health Organization Regional Office of Europe, 2016d). Policies need to be in place to support patients to co-design the care they receive. Reference could be taken from the development of organisations like New Zealand's Community Health Councils, which provide a platform for patients and members of the community to be involved in the work of healthcare networks, and focus the attention of providers on patients' needs and desires in terms of service design and delivery (Gauld, 2017b).

Strategic and needs-based planning and resource allocation.

Strategic purchasing plays a critical role in improving effectiveness and efficiency, managing expenditure growth, promoting quality, and enhancing equity in the distribution of resources, as well as enhancing transparency and accountability of providers and purchasers. This means that resources can be allocated where they are most required on the basis of information and intelligence of local demand, ensuring that services are responsive to local needs. Needs assessments should be conducted based on a variety of types such as epidemiological data and sources including data from the Centre for Health Protection to uncover risk factors and "health enabling needs" and ensure that resources and services are directed to meet the needs of specific populations. Needs-based planning should be practiced across the health system as a whole, and also applied to DHCs, to ensure district needs are identified and appropriate services provided. This should be complemented by assessment of the type, mix and capacity of the health services available. The optimal input-mix of primary and community care, specialist ambulatory and inpatient hospital care, rehabilitative and palliative care, would inform strategic planning of healthcare services.

A necessary complement to strategic purchasing is provider payment mechanisms which are instrumental in ensuring that intended services are delivered. A variety of payment mechanisms need to be considered, ranging from budgetary arrangements, pay-for-performance mechanisms, mixed payment models based on capitation, and bundled payments.

Develop mechanisms to generate intelligence and locate evidence, and to conduct research to support strategic planning and change.

Continuing to invest in collecting the right data for planning and policymaking, including establishing and linking existing data infrastructures from DH, the Hospital Authority and social services, will be necessary. This will enable intelligence to be generated to guide strategic planning for health by shaping the design, implementation and evaluation of services. Mechanisms also need to be established to track new medical technology and information and communications technology which have the potential to disrupt established practices and models of care. Examples include artificial intelligence enabling virtual physician consultation online and remote radiological reporting.

21st century health systems require 21st century information architecture.

We need to invest in systems to monitor the performance of providers, and develop tools to ensure services delivered are high-quality. Policies need to enable information to be a "system integrator". Mechanisms to ensure information continuity between providers and across sectors (particularly between public and

private/ NGO providers), and to guide patients in choosing the resources that are available to them should be developed. We also need to capitalise on the opportunities afforded by big data and AI. This will require the further development of information networks and platforms such as the Big Data Analytics Platform, the eHRSS system, and the development of a 'Health ID' representing the collection of all health data across the life course. With this, algorithms could be used to make predictions and assess risk so that suitable interventions are delivered in a timely manner. We also need to ensure that we have adequate governance mechanisms in place to secure patient data. Data analysis could also provide timely if not real time information on performance measurement of continuity, coordination, access, comprehensiveness, efficiency and effectiveness.

The Hong Kong Smart City Blueprint positions the HA 'Big Data Analytics Platform' to support healthcare-related research and adoption of 'a smart hospital approach' (Innovation and Technology Bureau of the Hong Kong SAR, 2017). Data gathered from the eHRSS could facilitate this process and also be used for research purposes or for strategic planning.

Align system incentives to promote integration.

Strategically purchasing or commissioning services and allocating resources, and utilising purchasing and payment mechanisms to encourage coordination and integration between service providers, will enable us to steer the system towards the change we want. Vouchers and PPPs can be further scaled up, facilitating greater integration between the public and private sectors, and helping harness the private sector to meet our aims. This should be targeted for the management of chronic disease which is the main driver of healthcare demand. Building on the suggestion in our previous report, "An Investment for the Celebration of Aging", vouchers for persons aged 40 and above for detection of chronic disease should be studied for feasibility (Yeoh & Lai, 2016). Other mechanisms, including personal health budgets, can help integrate services around individual patients, and promote greater personalisation and patient wellbeing (Exworthy et al., 2017). Care banking technology has been developed which incorporates checks and controls in processing funds for personal health budgets to ensure they are appropriately utilised.

Put in place accountability mechanisms.

These include establishing systems to monitor and improve the performance of the system, being clear about the roles and responsibilities of services providers, and ensuring needed resources are available, and are used correctly.

With this, we put forward the following health governance policy options for consideration:

- The Government should consider earmarking research funds to commission research for in-depth studies on how integration of healthcare should work in Hong Kong, with reference to a framework guided by a vision and systemic in its construct. Pilot studies should be rolled out according to key research findings. Where appropriate, evaluation of programmes which embed implementation sciences should be conducted to decide on the need for, and how to, scale up programmes. System changes are complex, context-specific and ongoing, we need to have much better research support to understand how the system can evolve over time. This is a global challenge and much more could be done to capitalise on existing levers and programmes to move the system forward.

- The Government should review strategic purchasing or commissioning mechanisms and appropriate resource allocation for primary, community and hospital inpatient care to encourage greater care efficiency and effectiveness in health service delivery. Many vertical programmes are currently in place (for example, community nursing, CGAT) yet there is still substantial room for improvement to deliver care that is cost-effective and this also necessitates consideration of more horizontal integration of services and programmes within the system.
- The Government may also need to consider the current governance structure, and review the roles and responsibilities of the two major public sector organisations under its purview—the Department of Health and the Hospital Authority. The overall leadership and stewardship role in health governance is a function of the Food and Health Bureau. Population and public health functions and responsibilities reside in the Department of Health, that also provides direct health services which are mainly preventive in type. The Hospital Authority is the public provider of primary, secondary and tertiary ambulatory out-patient and in-patient hospital care. Services arising from health protection and disease prevention also need to integrate with primary and specialist services. It is not apparent how this is currently done and whose responsibility it is.

The Food and Health Bureau is the overall commissioner of public health services through the annual budgetary and resource allocation exercise. Commissioning for private health services through the elderly voucher and vaccination subsidies is also done by the Bureau and executed by the Department of Health. Detailed submissions are required for new and improved services. Much of the commissioning for existing services is a function of the Hospital Authority which is also mandated to commission private primary care and PPP programs. Clarity of the role of the Hospital Authority in commissioning or strategic purchasing of services in addition to its provider function would enhance accountability in the deployment of resources.

- We recommend the Government set up a **steering committee/ task force on integrated care** to oversee the process of integration throughout the entire system. This task force should be responsible for developing the strategies and priorities for system change, and planning and evaluating the steps needed to achieve integrated person-centred care. It should strategise on how the system should be designed and how services should be delivered in moving towards the integrated person-centred care model. A critical function that requires urgent action is the strategic purchasing function, and involves decisions on who should be responsible, how it should be done, the basis of resource allocation to the different types and levels of care, and the alignment of payment mechanisms which are levers for improving performance. Focus should be placed upon levers facilitating better integration of the public and private sectors in service delivery. We need further research on how to provide comprehensive and continuity of care through the health system for patients with different needs at different times, through standard referral protocols and clear patient care pathways, ensuring access to appropriate care when needed.

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Glossary: Key Terms

Accountability

Accountability refer to defined obligations and responsibilities which govern a health system and its actors to justify decisions and actions. It ensures that the use of resources and authority are in compliance with laws and existing standards. It pervades all health systems domains including finance, performance and politics. Accountability is closely related to laws and regulations as well as professional codes of conduct, incentives, market mechanisms, public exposure and publicity.

(Brinkerhoff, 2003)

Activities of daily living (ADL)

Activities of daily living are routine activities and chores essential to everyday life. The six basic ADL metrics are, "getting dressed, getting into or out of a bed or chair, taking a bath or shower and using the toilet."

(National Cancer Institute, n.d.)

Acute care

Acute care covers time-sensitive diagnostic and curative actions. Acute care services include, "all promotive, preventive, curative, rehabilitative or palliative actions, where oriented towards individuals or populations, whose primary purpose is to improve health and whose effectiveness largely depends on time-sensitive and, frequently, rapid intervention."

(Hirshon et al., 2013)

Ageing in place

Ageing in place is independent living in the home or within the community rather than in residential or higher-level care facilities. It refers to a series of processes which collectively enable elderly to live autonomously while connected to sources of support.

(Wiles, Leibing, Guberman, Reeve, & Allen, 2012; World Health Organization, 2007b)

Allied health workers and Allied health professionals

Allied health workers and professionals are health system workers who are not doctors, dentists or nurses. They provide a range of services including disease prevention, treatment, rehabilitation, extended inpatient care and outpatient services in a community settings.

(Association of Schools of Allied Health Professions, 2015)

Ambulatory care sensitive condition

Ambulatory care sensitive conditions are chronic conditions that do not require hospitalisation if prompt and effective ambulatory or primary care is available.

(World Health Organization Regional Office for Europe, 2016a)

Ambulatory and out-patient care

Ambulatory and out-patient care services are provided to patients outside hospital inpatient settings and include general and specialised medical services. Ambulatory and out-patient care is provided in a range of facilities including primary care clinics, hospitals, public health centres and rehabilitation centres.

(World Health Organization Regional Office for Europe, 2016a; World Health Organization Regional Office for the Western Pacific, 2016)

Co-production of health

Co-production of health is collective care which is produced and delivered by health professionals, patients, their families and communities in equal and reciprocal relationships. Co-production requires a long-term relationship between people, health providers and health systems which share information, decision-making and service delivery roles.

(World Health Organization, 2015e)

Current health expenditure

Current health expenditure is the final consumption of public and private health goods and services excluding investments in health care infrastructure.

(OECD, 2018a)

Doctor shopping

Doctor-shopping is the practice of consulting more than one treatment provider during a single episode of illness.

(Sansone & Sansone, 2012)

Empowerment

In health systems, empowerment is the, “process through which people gain greater control over decisions and actions affecting their health.” It includes social, cultural, psychological and political processes which support the expression of needs and concerns and facilitates strategies for improvement and action to meet needs.

(World Health Organization, 1998)

End-of-life care

The support and care given to patients during the final phase of their life encapsulates end-of-life care. Active treatments are not able to arrest disease during this phase. Elderly people may live with multiple chronic illnesses and need extended care before the end of life.

(Cruz-Oliver, Little, Woo, & Morley, 2017; National Institute on Aging, 2017)

Family doctor

A family doctor is a medical practitioner chiefly responsible for the physical, psychological and social wellbeing of their patients. The family doctor provides comprehensive, continuing, holistic and preventive care to people and families in their community.

(Department of Health of the Hong Kong SAR, 2018a)

Functional ability

Functional ability refers to the, “actual or potential capacity of an individual to perform the activities and tasks that can be normally expected.” It is considered across a range of domains such as biological, social and psychological and is a key factor in determining quality of life.

(Kirch, 2008)

General practice (GP) practitioners

General Practice practitioners treat common illnesses and refer patients to hospitals and other medical services for urgent and specialised treatment.

(NHS England, n.d.-a)

Generalists

Generalists are practitioners whose practice are not limited to types of disease or treatment methods. They provide comprehensive and continuing medical care to people, families and communities.

(OECD, 2018b)

Health literacy

Health literacy is the ability of individuals to obtain, understand and use information in maintaining good health. Health literacy the capacity of patients to learn and make appointments. In a wider context it includes improving access to health information and people's ability to access it effectively. It is essential to empowerment.

(World Health Organization, 1998)

Health system

Health system includes all organisations, people and actions with the primary objective to promote, restore and maintain health.

(World Health Organization, 2007a)

Inpatient care

Inpatient care health services are provided to patients who require admission to health care institutions such as hospitals, nursing homes and residential care facilities for treatment spanning a minimum of one night or more than a day.

(OECD, 2003)

Instrumental activities of daily living

Instrumental activities of daily living are activities related to independent living and include housework, cooking, managing finances and using a telephone.

(National Cancer Institute, n.d.)

Intrinsic capacity

Intrinsic capacity is the physical and mental capacities of an individual.

(World Health Organization, 2015f)

Life course approach

The life course approach focuses on a healthy start to life and targets peoples' needs throughout their whole lifespans. It is rooted in, "timely investments with a high rate of return for public health and to address the causes, not the consequences, of ill health."

(World Health Organization Regional Office For Europe, 2018b)

Multimorbidity

Multimorbidity refers to the occurrence of multiple chronic conditions in an individual. (Lefèvre et al., 2014)

Out-of-pocket (OOP) health payments

Out-of-pocket health payments are direct payments by individuals to health care providers for service use. It excludes any prepayment for health services in the form of taxes, insurance premiums and reimbursements. (World Health Organization, 2018a)

Palliative care

Palliative care is an approach, “that improves the quality of life of patients and their families facing the problem associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial, and spiritual.” (World Health Organization, 2018c)

Person-centred care

Person-centred care focuses on the holistic needs and goals of the patient and in full recognition of the impact of social determinants of health. (World Health Organization, 2015e)

Primary care

Primary care is the first level in the health system offering, “first-contact, accessible, continued, comprehensive and coordinated care.” (World Health Organization Regional Office For Europe, 2018a)

Public-private partnership

An agreement between the government and one or more private partners (which may include the operators and the financiers) according to which the private partners deliver the service in such a manner that the service delivery objectives of the government are aligned with the profit objectives of the private partners and where the effectiveness of the alignment depends on a sufficient transfer of risk to the private partners. (OECD, 2008)

Secondary care

Secondary care is provided in hospital and includes specialised outpatient and inpatient services. Patients may be referred for secondary care from primary care. (National Institute for Health and Care Excellence, 2018)

Social care

Social care refers to all types of personal care and practical assistance for people who need extra support. Examples include individuals facing social difficulties, people with disabilities or mental health problems, people who abuse drugs or alcohol and the elderly. (National Institute for Health and Care Excellence, 2018)



Social determinants of health

Social determinants of health refers to, “the conditions in which people are born, grow, live, work and age.” These conditions are, “shaped by the distribution of money, power and resources,” and contribute to health inequities.

(World Health Organization, 2017a)

Specialists

Specialists are practitioners who, “diagnose, treat and prevent disease, injury, and other physical and mental impairments in humans using specialised medical techniques.” They have expertise in specific categories of diseases and treatment methods and may conduct research and provide medical education in their areas of specialty.

(OECD, 2018b)

Tertiary care

Tertiary care is highly specialised care for people who need complex treatments such as cancer management, complex surgery and medical interventions. Patients are referred for tertiary care from primary and secondary care.

(National Institute for Health and Care Excellence, 2018)

Total health expenditure

Total health expenditure refers to the final consumption of public and private health goods and services including capital investment in health care infrastructure.

(OECD, 2011)

List of Abbreviations

ACSC

Ambulatory Care Sensitive Condition

CCGs

Clinical Commissioning Groups

CGAT

Community Geriatric Assessment Team

CHAS

Community Health Assist Scheme

CHC

Community Health Centre

CNS

Community Nursing Services

CRN

Community Rehabilitation Network

CPD

Continuing Professional Development

DH

Department of Health

DHB

District Health Board

DHC

District Health Centre

EHCVS

Elderly Health Care Voucher Scheme

eHRSS

Electronic Health Record Sharing System

EHR

Electronic Health Record

EOL

End-of-life

FHB

Food and Health Bureau

GOPC

General Outpatient Clinic

GP

General Practitioner

HTA

Health Technology Assessment

HA

Hospital Authority

IDSP

Integrated Discharge Support Program for Elderly Persons

JCSPHPC

Jockey Club School of Public Health and Primary Care

NCD

Non-Communicable Diseases

OOP

Out-of-Pocket

PEP

Patient Empowerment Programme

PCN

Primary Care Network

PCO

Primary Care Office

PHO

Primary Health Organization

PHF

Private Healthcare Facilities

PPP

Public–Private Partnership

RCHE

Residential Care Homes for the Elderly

RAMP

Risk Assessment and Management Programme

SWD

Social Welfare Department

SOPC

Specialist Outpatient Clinic

THS

Thematic Household Survey

TCM

Traditional Chinese Medicine

VHIS

Voluntary Health Insurance Scheme

WHO

World Health Organization

Acknowledgement

We would like to thank The Honourable Mr. Tung Chee-hwa, GBM, Chairman of Our Hong Kong Foundation, for his support to the research of this report.

We would also like to express gratitude to Mrs. Eva Cheng, Executive Director of Our Hong Kong Foundation, for her unwavering support without which, this report would not have been possible.

Our Hong Kong Foundation would like to thank all focus group and personal interview participants from the following public and private sector, and patient groups. Their invaluable insights have made this research possible. We note that the content of this report is not necessarily reflective of the views of these interviewees.

Bupa (Asia) Limited

Department of Health, The Government of the HKSAR

Food and Health Bureau, The Government of the HKSAR

Gleneagles Hong Kong Hospital

Haven of Hope Christian Service

Health In Action

Hong Kong Academy of Medicine

Hong Kong Alliance of Patients' Organizations Limited

Hong Kong College of Family Physicians

Hospital Authority

Labour and Welfare Bureau, The Government of the HKSAR

Social Welfare Department, The Government of the HKSAR

Society for Community Organization

The Chinese University of Hong Kong

The Hong Kong Medical Association

The Hong Kong Private Hospitals Association

The Hong Kong Society for Rehabilitation

The University of Hong Kong

We would like to extend special thanks to The Hong Kong Society for Rehabilitation for their assistance in participant recruitment and providing a venue for patient focus groups.

In addition, we are immensely grateful to the faculty and research members of the Jockey Club School of Public Health and Primary Care at the Chinese University of Hong Kong for their contribution during the research process:

Ms. Patsy Chau

Professor Marc Chong

Professor Vincent Chung

Professor Chi Tim Hung

Ms. Nicole Kiang

Ms. Christine Ko

Professor Eman Leung

Mr. Kailu Wang

Professor Eliza Wong

Professor Samuel Wong

Dr. Carrie Yam

Professor Benjamin Yip

Last but not least, we would like to thank the research team at Our Hong Kong Foundation for their valuable contribution towards this research:

Mr. Alvin Cheung

Mr. Johnson Kong

Ms. Natalie Lau

Ms. Marie Danielle Kobler

Ms. Midori Nishida

Ms. Esther Poon

Ms. Helen So

Mr. Jaymond Tang

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OUR HONG KONG
FOUNDATION
團結香港基金

Our Hong Kong Foundation is a non-government, non-profit organisation, dedicated to promoting the long-term and overall interests of Hong Kong through public policy research, advocacy and engagement. Pooling together local, mainland and international talent, the Foundation studies Hong Kong's short, medium and long-term development needs, offering multidisciplinary public policy recommendations and solutions to foster social cohesion, economic prosperity and sustainable development.

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- **Mr. Stephen Wong**, Deputy Executive Director and Head of Public Policy Institute, Our Hong Kong Foundation
- **Dr. Pamela Tin**, Researcher, Our Hong Kong Foundation
- **Dr. Cathryn Johnston**, Post-doctoral Fellow, Jockey Club School of Public Health and Primary Care, The Chinese University of Hong Kong
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19/F Nan Fung Tower, 88 Connaught Road Central, Hong Kong

Nov 2018

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PPI / 201811015E