賽馬會齡活城市
Jockey Club Age-friendly City

Thematic Report Series on the Concept of

an Age-friendly City in Hong Kong

Community Support and Health Services

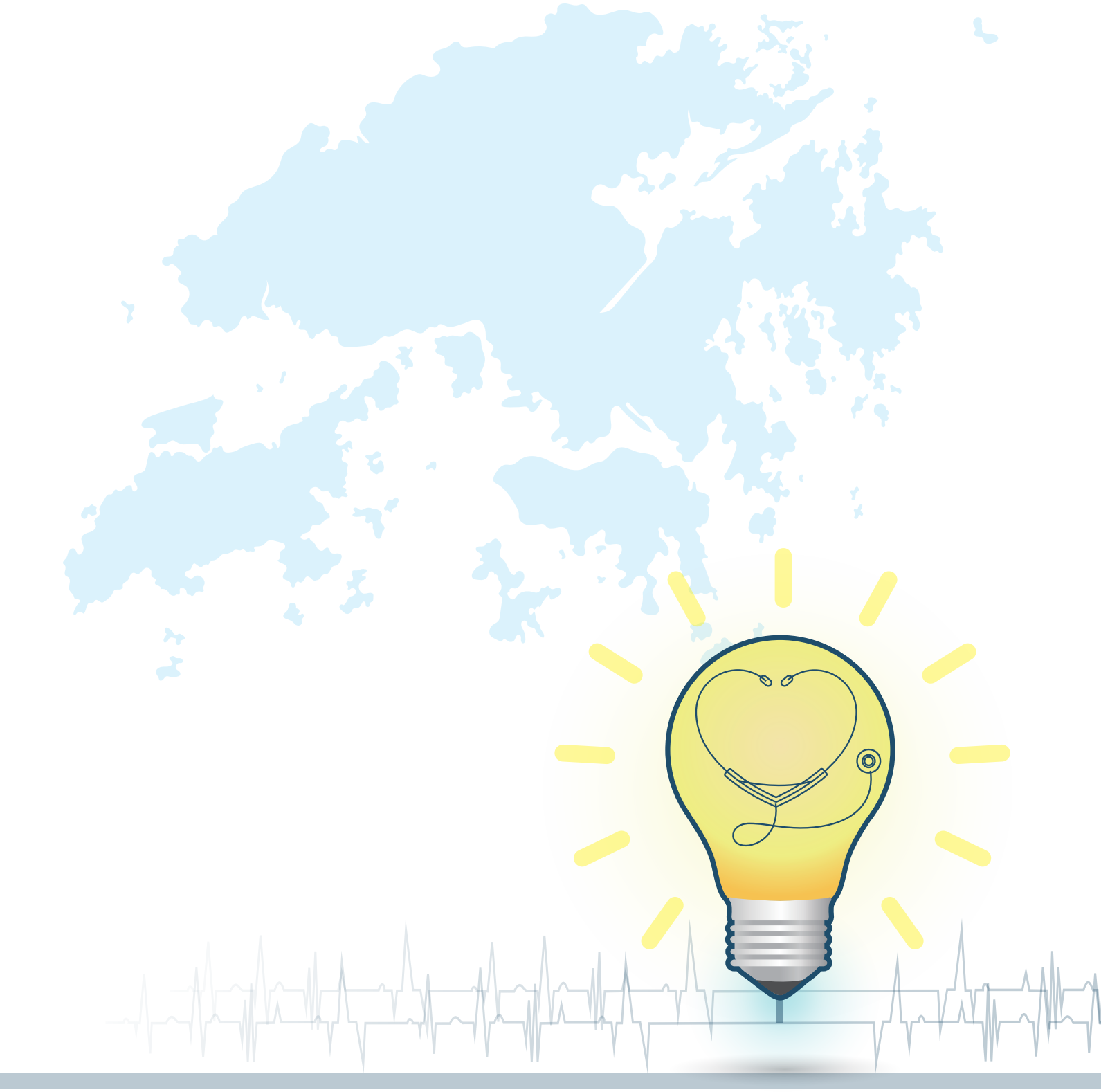
Initiated and funded by:

The Hong Kong Jockey Club Charities Trust

Partner institution:

香港中文大學
The Chinese University of Hong Kong

香港中文大學
賽馬會老年學研究所
CUHK Jockey Club Institute of Ageing



Thematic Report Series on the Concept of an Age-friendly City in Hong Kong - Community Support and Health Services

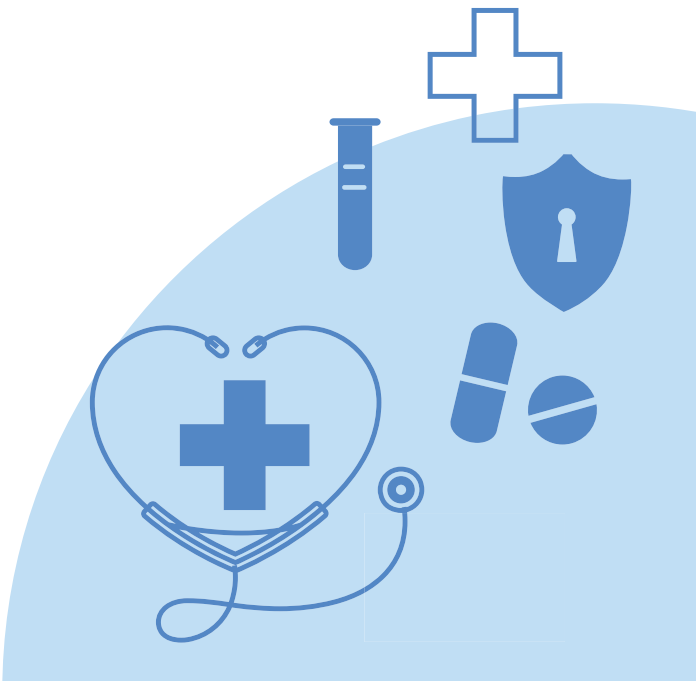
Author: CUHK Jockey Club Institute of Ageing
Publisher: The Hong Kong Jockey Club
Tel: (+852) 2966 8111
Fax: (+852) 2504 2903
Website of Jockey Club Age-friendly City Project: www.jcafc.hk

Project Team

Prof. Jean Woo, Director, CUHK Jockey Club Institute of Ageing
Dr. Daniel Leung, Research Associate, CUHK Jockey Club Institute of Ageing
Mr. Ben Chan, Research Associate, CUHK Jockey Club Institute of Ageing
Ms. Cherry Shek, Research Assistant, CUHK Jockey Club Institute of Ageing
CUHK Jockey Club Institute of Ageing

ISBN: 978-988-8714-96-4

Published in 2022



The CUHK Jockey Club Institute of Ageing

In support of its aspiration to overcome the social challenges created by an ageing population, the Chinese University of Hong Kong (CUHK) established The CUHK Jockey Club Institute of Ageing in 2014, with generous support from The Hong Kong Jockey Club Charities Trust.

Since its establishment, the Institute has embarked on collaborative research in gerontechnology, healthy ageing, and community intervention programmes for the promotion of health and the prevention of frailty. An effort to promote messages of active ageing has been made through a dedicated series of TV programmes; announcing the results of the first multidimensional AgeWatch Index of Hong Kong in 2015; development of Hong Kong Elder Quality of Life Index incorporating AgeWatch Index for Hong Kong since 2016-2017; and supporting the implementation of the Jockey Club Age-friendly City Project, initiated and funded by The Hong Kong Jockey Club Charities Trust.

Building on the University's long-standing efforts of ageing research and its partnership with charitable organizations, the Institute will continue to develop its capacity and serve as a platform for ageing-related research, training and community outreach programmes.

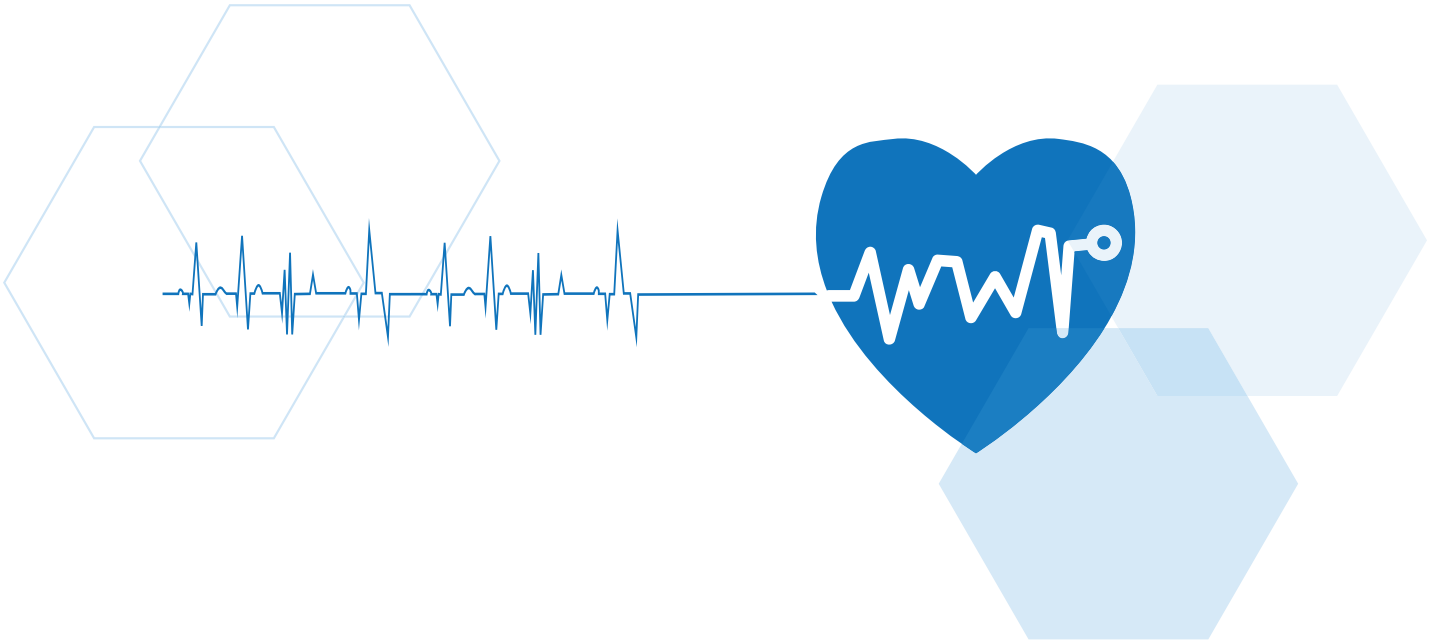
Vision

To make Hong Kong an age-friendly city in the world.

Mission

To synergize the research personnel and efforts on ageing across disciplines to promote and implement holistic strategies for active ageing through research, policy advice, community outreach and knowledge transfer.

Table of Contents



Preface by The Hong Kong Jockey Club

Given our city's ageing population, The Hong Kong Jockey Club Charities Trust has since 2015 been implementing the Jockey Club Age-friendly City Project in partnership with four local university gerontology research institutes to support an age-friendly culture in all 18 districts in Hong Kong.

Eight domains of an age-friendly city have been identified by the World Health Organization. The CUHK Jockey Club Institute of Ageing, our project partner, has published a series of thematic reports featuring four of these in the Hong Kong context, including on Community support and health services, Outdoor spaces and buildings, Transportation, and Communication and information.

This thematic report focuses on Community support and health services, recognising that a wide range of accessible and affordable health and support services are vital to keeping older adults healthy, independent and active. It examines the concept of healthy ageing, with particular emphasis on the local community support and health services available to older people and the associated obstacles. It also makes reference to global developments, policy strategies and good practice recommendations to promote preventative health, lower demand for institutional services and improve overall wellness.

Our support for the Jockey Club Age-friendly City Project is made possible by the Club's unique integrated business model through which racing and wagering generate tax revenue and charity donations. As one of the world's top ten charity donors, we support healthy and active ageing, and Hong Kong's advancement as an age-friendly city through collaborative efforts.

On behalf of the Trust, I would like to express my sincere thanks to the CUHK Jockey Club Institute of Ageing for publishing these thematic reports. We hope the publications will inspire and encourage diverse stakeholders to develop and implement more age-friendly initiatives in our community.

Mr Leong Cheung
Executive Director, Charities and Community
The Hong Kong Jockey Club

Executive Summary

This report is one of four thematic reports in a series on the concept of an “Age-friendly City” (AFC) in Hong Kong. Each of the four reports in the series investigates a selected AFC domain by understanding relevant local initiatives as well as worldwide experiences and practices, covering, Community support and health services, Outdoor spaces and buildings, Transportation, and Communication and information, respectively.

With the aim of promoting the reader’s awareness of developing an AFC, the report specifies the domain of Community support and health services within the local context of Hong Kong and its importance in the establishment of an AFC. It also discusses the relevant prospects and policy implications for Hong Kong.

行政摘要

本報告為香港「長者及年齡友善城市」專題報告系列的其中一本。在四本專題報告中，每本報告會透過研究香港相關的措施以及海外經驗，分別探討長者及年齡友善城市概念中的四個範疇：社區與健康服務、室外空間和建築、交通、以及信息交流。

為提高大眾對建立長者及年齡友善城市的關注，本報告闡述香港在「社區與健康服務」範疇的情況，以及此範疇在建立長者及年齡友善城市的重要性，並就其將來的發展以及制定有關未來政策的啟示，作出討論。

Chapter 1 Introduction

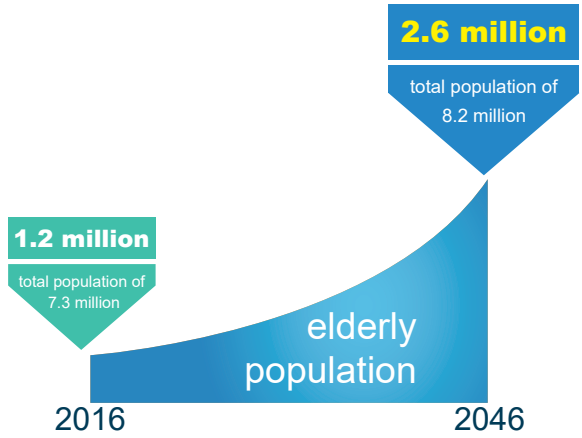
1.1 Identifying changes amid population ageing

As the population ages, health needs undergo rapid changes. The escalating demand for effective healthcare and social services, increasing burden of chronic noncommunicable diseases (NCDs), rising prevalence of age-related illnesses such as dementia, declining intrinsic and functional capacity as a result of biological ageing and the higher public expectations on service provision are all substantial challenges to existing healthcare systems. These changes must be identified and taken into consideration when designing an age-friendly service delivery system.

1.1.1 Changes in demographic trends

Similar to many regions in the world, the Hong Kong population is ageing rapidly. According to the projections from the Hong Kong Census and Statistics Department (2017), the trend of population ageing is expected to continue and there will be significant acceleration in the upcoming two decades, with the most rapid development projected to occur over the next 10 years (Figure 1.1).

Figure 1.1: Hong Kong elderly population projections for 2016 to 2046



Source: Census and Statistics Department (2017)

1.1.2 Changes in disease patterns

1.1.2.1 Physical health

With advancements in healthcare and medicine, mortality from infectious diseases as well as overall infant and maternal mortality rates have reduced, resulting in increasing life expectancy globally. Hong Kong has the longest life expectancy in the world. According to the latest data of the World Bank, the life expectancy for males and females in Hong Kong stand at 82 years and 88 years, respectively. Under this demographic transition, it is well recognized that the

burden of NCDs, multimorbidity and disability is increasing and accumulating. According to a report published by WHO (2015b), the dominant causes of death globally in older age are NCDs, irrespective of the level of socioeconomic development. Specifically, there are three disorders dominating mortality among people aged 60 years or above: ischaemic heart disease, stroke, and chronic obstructive pulmonary disease (World Health Organization, 2015). As for Hong Kong, the main types of NCDs including cancers, heart diseases, diabetes and chronic respiratory diseases attributed to 55% of the registered deaths in 2016 (Department of Health & Food and Health Bureau, 2018). Besides, ageing is associated with increased risk of multimorbidity (Marengoni et al., 2011). Multimorbidity, in which a person have more than one disorder at the same time, might result in the interaction between disorders, and thus the effects on health might be greater than the individual effects expected from these disorders.

1.1.2.2 Mental health

Regarding cognitive impairment, dementia is affecting almost one-tenth of Hong Kong's elderly population (Department of Health, 2016). The total number of people with dementia worldwide was estimated to increase from 50 million in 2018 to 152 million in 2050, indicating the need to enhance the capacity of mental health services (World Health Organization, 2017c). As for depression and elderly suicide, the suicide rate in Hong Kong among older adults was estimated to be much higher (up to three-fold) than those of younger age group and thus there is a great need to strengthen mental health services for the elderly (Leung, 2018).

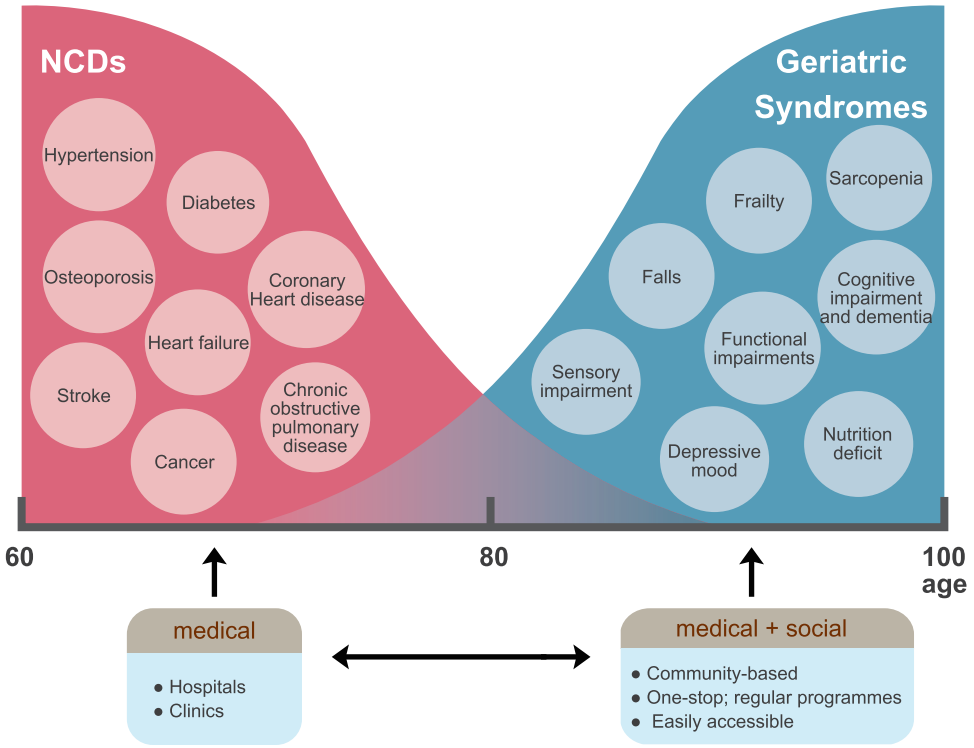
1.1.3 Changes of health needs throughout the life course

The presence/absence of health disorders only makes up part of the health states in older age and gives us little information about the effect it might have. Approaches based on traditional disease classifications, mortality patterns and disease prevalence are not able to capture the multifaceted dynamics between underlying physiological change, chronic disease and multimorbidity (Beard et al., 2016). These are commonly known as geriatric syndromes, which are often missing in disease-based health assessments. The concept of geriatric syndromes better addresses the complexity of health states in older age. It considers functioning, rather than the presence/absence of diseases, as a more important determinant of health states in older people. In fact, a study predicting the six-year survival of 1106 hospitalized old patients in Switzerland demonstrated that comprehensive assessments of functioning in older age were much better predictors of survival and other health outcomes than the presence/absence of diseases or the extent of comorbidities (Lordos, 2008).

Box 1.1 Geriatric syndromes

Geriatric syndromes refer to the unique features of common clinical conditions in the elderly that do not fit into discrete disease categories (Figure 1.2). Common geriatric syndromes include falls, frailty, dizziness, and delirium (Inouye, Studenski, Tinetti, & Kuchel, 2007).

Figure 1.2 Non-communicable diseases (NCDs) and geriatric syndromes



Source: Woo (2017)

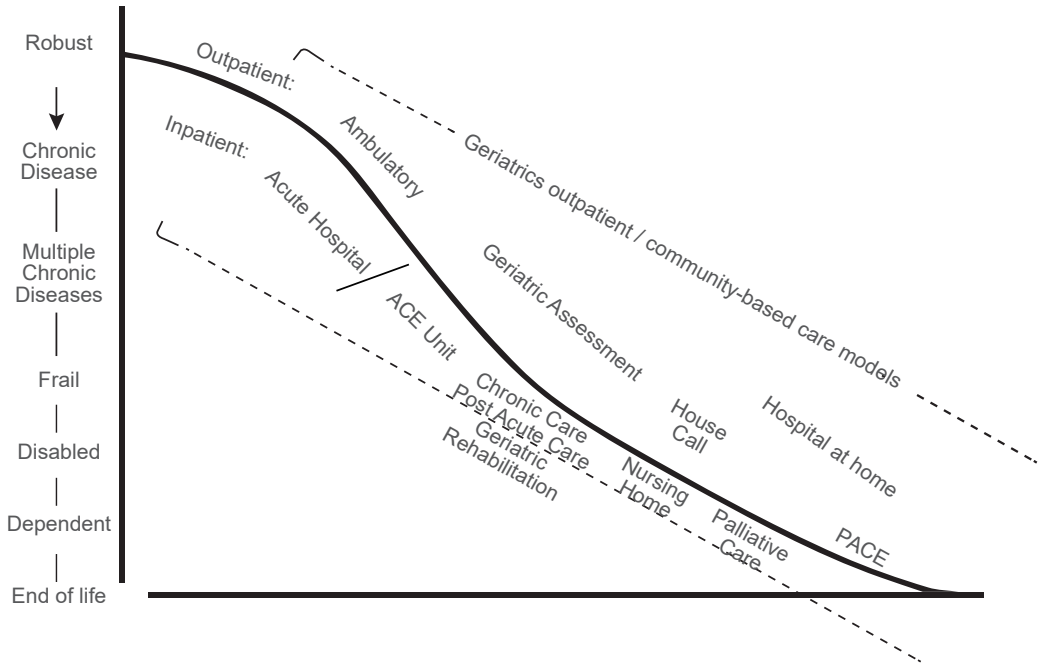
Foremost among the geriatric syndromes is frailty, which represents the deterioration in physiological systems and the loss of homeostasis reserves due to ageing (Woo, 2017). Frailty results in vulnerability to stressors and risks of a range of adverse outcomes such as falls and care dependence. It poses significant challenges to older people across physical, social, cognitive, and psychological domains; examples include chewing, visual and hearing difficulties as well as deterioration of instrumental activities of daily living (IADL) (Woo, 2017).

Frailty is common condition among older adults. According to a local study providing frailty screening using a frail scale, the overall prevalence of frailty and pre-frailty in the community-dwelling population was approximately 10% and 50% respectively (Woo et al., 2015). The study investigators found that increasing life expectancy may follow with increasing levels of frailty (Yu et al., 2016). Another overseas study reported that the prevalence of frailty for Europeans living in 10 countries was around 4% for people at 50-64 years and 17% for people older than 65 years (Santos-Eggiman, Cuénoud, Spagnoli & Junod, 2009). On the other hand, according to the Global Burden of Disease (GBD) Report, the incidence of common NCDs such as cardiovascular diseases and the mortality caused by NCDs is on a downward trend, regardless of the increase in the absolute numbers of people with chronic diseases and disability (GBD 2015 DALYs & HALE Collaborators, 2016). The above findings imply that a shift in focus on the increased prevalence on geriatric syndromes is warranted, more so because geriatric syndromes are often ignored and seldom managed in traditional health systems.

1.1.4 Implications: A fit-for-purpose healthcare system

To design a responsive and fit-for-purpose model for healthcare systems faced with various challenges across the world, it is crucial to take into consideration the varying functional capacity from normal to declining to dependency (Figure 1.3). There needs to be a paradigm shift from specialty-dominated hospital service provision to integrated care built within the community in order to help older adults to maintain a lifestyle that reduces frailty and promotes intrinsic capacity (Woo, 2017). The goal of today's public health systems should include prevention of geriatric syndromes such as frailty and the maintenance of physical function and psychological well-being in addition to the traditional approach of reducing mortality rates from infectious diseases and NCDs (Woo, 2017).

Figure 1.3 Continuum of the geriatric care model



Abbreviations: ACE Unit, Acute Care for the Elderly Unit; PACE, Program of All-inclusive Care for the Elderly

Source: McNabney, Willging, Fried, & Durso (2009)

An age-friendly service should be able to effectively identify and respond to the needs of the population (Woo, 2017). The changes in health status, population demographics and healthcare needs altogether represent great challenges faced by the existing healthcare systems. Consequently, there are concerns on whether or not our traditional healthcare and social systems are prepared to overcome such hurdles. The clear rationale is to design service delivery models from the user's perspectives and to respond to the needs of the users that may often change with time (Woo, 2017). Hence, we advocate the needs for innovations and the development of new goal-oriented frameworks. We emphasize the significance of formulating policies in accordance with time and circumstantial needs, leading to a health and social system that aligns with the genuine needs from users, in particular older adults, in the community.

1.2 World Health Organization (WHO) frameworks on healthy ageing

1.2.1 Healthy ageing: A public health framework

The World Health Organization (WHO) published the 'World Report on Ageing and Health' in 2015 with a view to guide a comprehensive, global public-health response to population ageing (World Health Organization, 2015b). The conceptual model redefined the goal of 'healthy ageing' that centred on the notion of functional ability and intrinsic capacity of older adults, rather than the presence/absence of diseases. This holistic framework by WHO considered ageing in a life-course perspective by taking into account the complex health and social needs across the life course and serves as a useful entry point for a broader public health responses to population ageing.

Box 1.2 WHO definitions of functional ability and intrinsic capacity

Intrinsic capacity

The composite of all of the physical and mental capacities that an individual can draw on (World Health Organization, 2015b).

Functional ability

Health-related attributes that enable people to be and to do what they have reason to value (World Health Organization, 2015b).

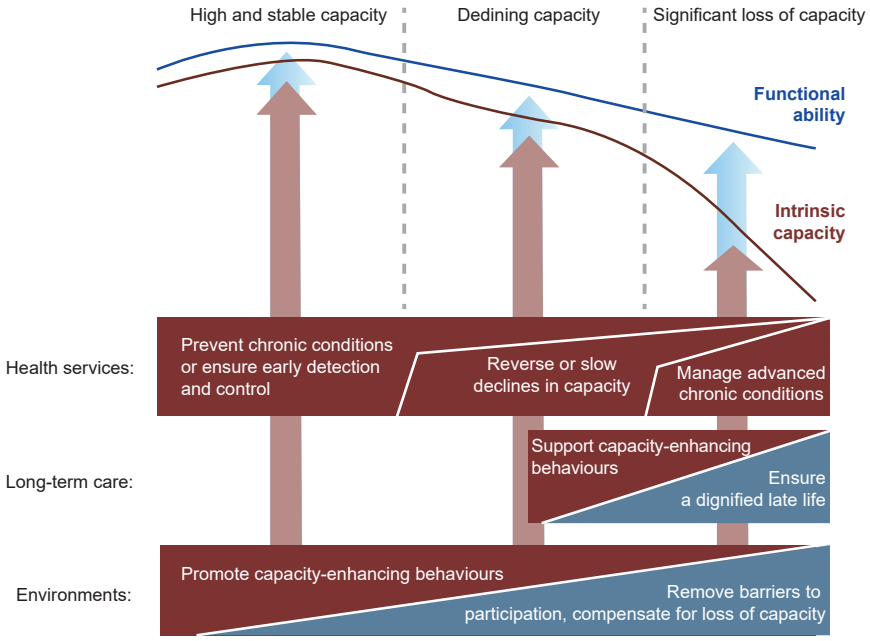
The WHO framework considers the multitude of health characteristics as well as the underlying physiological and psychosocial changes to determine the i**ntrinsic capacity** of an older person. The report suggests that it is the preservation of mental or physiological capacities, rather than the chronological age, that defines a person as at risk of negative events (World Health Organization, 2015b). The concept of intrinsic capacity embraces the notion of frailty and diseases but it is not limited by them. Instead, it represents a more proximal cause of functional decline, which is determined by an individual's continuous trajectory of intrinsic capacity. Compared with the traditional model, the concept of intrinsic capacity has the advantage of offering a more unifying focus to understand the inter-relationships.

Besides, intrinsic capacity is only one of the dimensions of functioning of an older adult. The environments they inhabit, which might provide various resources or barriers, and their interactions with the environments will ultimately determine whether a person with a particular capacity can engage in activities that are meaningful to them (World Health Organization, 2015b). In short, the combination of intrinsic capacity of an individual, the relevant environmental characteristics and the interactions between them can be defined as **functional ability**.

Building on the two concepts of capacity and ability, **healthy ageing** can be defined as the shared goal of maximising functional ability, and ultimately, giving people opportunities to achieve the multiple aspects of lives they have reason to value (Beard et al., 2016).

By this line of reasoning, the focus of public-health action should not be on functioning itself and what older people do, but on building the abilities that allow them to navigate the changing world and invent better ways of functioning. The public health framework of healthy ageing (Figure 1.4) provided insightful entry points towards the actions in fostering healthy ageing (World Health Organization, 2015b). The framework firstly illustrates the ongoing interactions between an individual and the environments they inhabit, resulting in the trajectories of both intrinsic capacity and functional ability. Although intrinsic capacity tends to fall with age, there is individual variation between the state of trajectory and the decline is not smooth. The additional functioning in functional ability shows the net benefits acquired from the environment, such as health and social systems that support them.

Figure 1.4 A public-health framework for healthy ageing across the life course



Source: World Health Organization (2015b)

The WHO subsequently published the 'Global Strategy and Action Plan on Ageing and Health' in 2017 to stress the role of the public health system, urging a transformation in the health system away from the fundamentally misaligned disease-based curative models towards a person-centred, integrated healthcare model (World Health Organization, 2017a). The action plan presents four priority areas to achieve healthy ageing:

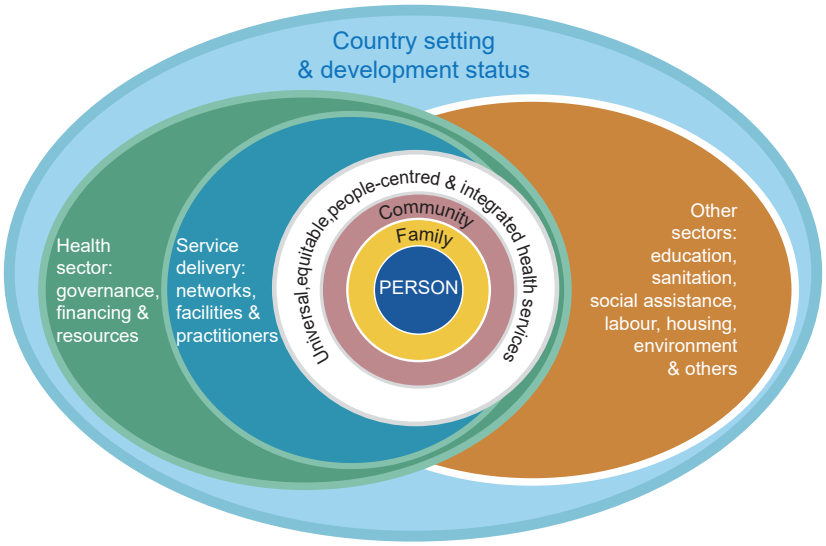
(1) Aligning the health system to the needs of older population
(2) Developing systems to provide long-term care
(3) Ensuring all people grow old in an age-friendly environment
(4) Improving measurement, monitoring, and understanding of healthy ageing

1.2.2 People-centred and integrated health services: A framework for health service delivery

To improve health service delivery, the WHO published 'WHO global strategy on people-centred and integrated health services' in 2015 to advocate a shift from the traditional

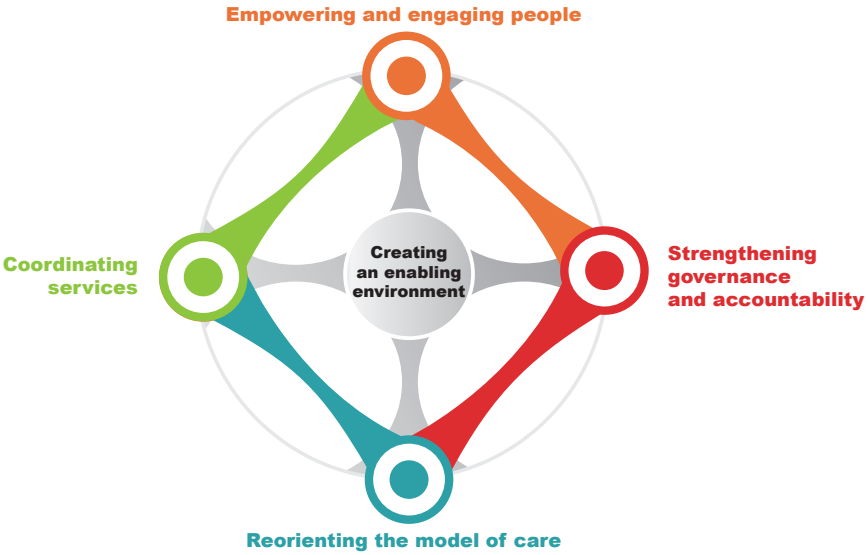
fragmented health system to an advanced system where individuals, families, carers, and communities are at the centre of the focus (Figure 1.5), supported by responsive services that meet people's needs and that are integrated among the health sector (World Health Organization, 2015a). The integrated system adopts a more effective approach to deliver health services responding to various challenges including ageing populations, urbanization, trend on unhealthy lifestyle and dual disease burden of communicable and non-communicable diseases (Figure 1.5; Figure 1.6). It calls for reforms to reorient health service delivery systems to provide safe, accessible and high-quality healthcare services (World Health Organization, 2015a).

Figure 1.5 WHO conceptual framework for people-centred and integrated health services



Source: World Health Organization (2015a)

Figure 1.6 The interdependency of the five strategic directions to support people-centred and integrated health services



Source: World Health Organization (2015a)

1.2.3 Integrated care for older people (ICOPE): Guidelines on optimizing intrinsic capacity

Building upon the conceptual framework of intrinsic capacity, WHO further published the Integrated Care for Older People (ICOPE) guidelines, recommending appropriate community-based approaches for managing the trajectories of intrinsic capacity in the clinical context (World Health Organization, 2017b). The rationale is that early markers of declines in intrinsic capacity are often overlooked and yet these early signs can be effectively managed, prevented, and delayed through early identification and effective interventions. The WHO guidelines provide recommendations on assessment methods and the respective interventions into the following three organized modules (World Health Organization, 2017d):

1. **Declines in intrinsic capacity**, including mobility loss, malnutrition, visual impairment, hearing loss, cognitive impairment, and depressive symptoms
2. **Geriatric syndromes** associated with care dependency, including urinary incontinence and risk of falls
3. **Caregiver support**, for interventions to support caregiving and prevent caregiver strain

The WHO launched the ICOPE mobile app to enable self-assessment and to guide health and social care workers from the process of screening assessment (World Health Organization, 2019a). Furthermore, given that there is a consensus that the guideline recommendations would be best implemented in the context of a comprehensive needs assessment accompanied by an integrated care plan (World Health Organization, 2019b), a model of care which prioritizes primary care and community-based care and involves community engagement is warranted.

1.2.4 Age-friendly city (AFC)

The concept of an ‘age-friendly city’ (AFC) was initiated by the WHO in 2007, stressing on the importance of creating an enabling physical and social environment of older adults. Going beyond the health sector, an AFC takes into account the aspects of natural and built environment, social participation and inclusion (World Health Organization, 2007). A large-scale research project involving 33 cities worldwide was conducted to examine the features and the supportive living conditions of an AFC in the context of an urban environment. Factors and features identified to facilitate active and healthy aging are summarised in eight domains as detailed in Figure 1.7.

Figure 1.7 Features of an AFC in urban environment

Source: World Health Organization (2007)

1.2.4.1 The AFC domains in Hong Kong: Findings of cross-district analyses of the Jockey Club Age-friendly City Project's studies

To assess the age-friendliness of the community and identify areas for improvement in the eight domains of age-friendly city as identified by the WHO, a baseline assessment study was pursued in each district under the Jockey Club Age-friendly City Project (JCAFC Project) by four gerontology research institutes. Using questionnaire surveys and focus group interviews, more than 9,700 questionnaire respondents and over 700 interviewees from 91 focus group interviews contributed to this cross-district assessment study (Jockey Club Institute of Ageing et al., 2019).

Of the respondents of questionnaire survey, 65% were aged 65 years or above and 70% were female. Items in the questionnaire survey covered the degree to which respondents perceived age-friendly features in the district they live in. Items were rated on a 6-point Likert scale, ranging from 1 (strongly disagree) to 6 (strongly agree). Quantitative analysis showed

that the domain of Community support and health services was rated as the least favourable (mean score=3.67), compared with the most favourable domain, Social participation, with a mean score of 4.29. Emergency support (3.60) and burial service (2.44), which both fall into the domain of Community support and health services, were identified as least favourable in a total of 19 sub-domains.

Regarding qualitative research, a wealth of information was obtained from the focus group interviews. While the strengths of the existing healthcare and social services were mentioned by the interviewees, concerns and limitations of the Community support and health services domain were also noted, which could indirectly explain the quantitative findings in which the domain was ranked at the bottom.

With respect to strengths, interviewees pointed out that medical and health services in Hong Kong are affordable and expressed their appreciation of the 'Elderly Health Care Voucher Scheme' as a valuable supportive measure, with remarks indicating that the voucher scheme is easy to use, useful in alleviating financial pressure, provides various choices of doctors/ clinics. The interviewees highlighted that general healthcare and medical services are readily available and accessible in the community, such as public hospitals and general out-patient clinics, private clinics and hospitals, elderly health centres, mobile clinics / health services supported by non-governmental organizations (NGOs) (for example, traditional Chinese medicine clinics). Furthermore, community support services are available, including meal delivery, home-help services, home visits, escort services for attending medical appointments, referral services, and health precaution programmes such as talks on dementia.

Several limitations and constraints of this AFC domain of Community support and health services were mentioned during the focus group interviews. First of all, community support services are sometimes inadequate or are of unsatisfactory quality, which would constitute barriers of ageing in place. Specifically, the following shortcomings were emphasized: (1) inadequate quotas for outreach services, community care services, escort services for attending medical appointments, residential care places, day care centres, and end-of-life services; (2) limited accessibility of community services for certain subgroups of residents, such as those living in remote areas; (3) lack of promotion about community support services (e.g., domestic helper services); and (4) stringent eligibility for application of subsidised community services.

Secondly, there have been highlighted limitations of healthcare services: (1) long waiting time for public hospitals and clinics; (2) inadequate specialised medical services (e.g., dental services, traditional Chinese medicine specialist consultations), night-time healthcare services and public-based rehabilitation services; (3) limited choices of health services in some communities and inaccessibility for people residing in some geographically-remote locations. In addition, interviewees regarded the health and medical system as unsustainable, attributing to the constraints of meeting the needs of the ageing population and promoting a healthy, active lifestyle.

Thirdly, there was a level of dissatisfaction with medical costs and charges, especially in the private medical sector; specifically, high medical costs for private medical and dental services, lack of transparency for consultation fees of private hospitals, insufficient amounts of the 'Elderly Health Care Voucher' to cover dental and general medical expenses, and the fact that private medical sector service providers are more likely to take advantage of the voucher scheme by increasing the charges to voucher users. Fourthly, it was mentioned that the 'General Out-Patient Clinic Telephone Appointment System' (GOPC - TAS) is not user-oriented, particularly for the older users and those with sensory difficulties or cognitive decline. Other limitations include difficulties of rescheduling appointments due to technical failure of system connection and difficulties in making a new call if pressing an inappropriate button during the booking process.

Collectively, in order to raise the level of age-friendliness of this AFC domain, the interviewees proposed to: improve service accessibility and quality; strengthen services such as specialist services, night-time clinics and outreach services; enhance healthcare services through volunteer scheme (for example, to recruit stay-at-home housewives or the young-old as volunteers to provide community services to older people who are living nearby in the same district/community); cater for the needs of the elderly (for example, older people who live alone or reside in remote areas); boost resources for caregiver support; and introduce more options for older adults to arrange for medical appointments.

1.2.4.2 The AFC domains in Hong Kong: Final assessment on Community support and health services of the JCAFC Project's studies

To assess the change in age-friendliness of the community over time, the four gerontology research institutes used the same questionnaire surveys and focus group interview method to do the final assessment on eight AFC domains, including Community support and health services. Completed in 2021, more than 10,000 questionnaire respondents and over 600 interviewees from 90 focus group interviews were recruited for the final assessment.

Despite keeping at the lowest ranking among the eight AFC domains, the Community support and health services domain obtained the second-largest increase in age-friendly score in the final assessment. As presented in Table 1, "emergency support" (community emergency plans taking into account of the abilities and limitations of elderly people) and "burial service" scores have significantly increased by 0.18, which were the most significant score increases among all 19 sub-domains. Together with the increased score in item regarding home care services (home care services are available, including health, personal care and housework services), we can observe a certain extent of improvement in the past years.

Regarding qualitative research, interviewees in the final assessment identified strengths, limitations and suggestions similar to the baseline assessment. They pointed out that a variety of community support, medical and healthcare services are available and accessible, particularly highlighting that there are new hospitals and new District Health

Centres. However, there are still unsolved complaints about barriers in public medical and healthcare services (e.g. long waiting time), unfriendly General Out-patient Clinic Telephone Appointment System and limited coverage of the Elderly Health Care Voucher Scheme. As a result, they made recommendations: 1) enhance primary care services to alleviate the overloading of public healthcare services; 2) improve medical and healthcare services; 3) improve community support services; 4) improve the Elderly Health Care Voucher Scheme; 5) improve the operation of General Out-patient Clinics Telephone Appointment System.

Table 1 Age-friendly scores of Community support and health services in Hong Kong

Domains and questionnaire items	Baseline assessment score	Final assessment score	Score difference	Sig.
Community support and health services	3.67	3.73	+0.06	**
Availability and affordability of medical/ social services				
1. Sufficient medical and community support services are available.	3.93	3.91	-0.02	
2. Home care services are available, including health, personal care and housework services.	3.83	3.89	+0.06	**
3. Residential care homes and the living areas of elderly people are located close to other community services and places.	4.03	4.03	-0.01	
4. People would not be impeded from accessing to medical and community support services due to financial difficulties.	4.14	4.15	Less than 0.01	
Emergency support				
5. Community emergency plans (e.g. fire escape) take into account the abilities and limitations of elderly people.	3.60	3.79	+0.18	**
Burial service				
6. Burial sites (including graves and columbarium spaces) are sufficient and easily accessible.	2.44	2.62	+0.18	**

Remarks: ** means statistically significant change at $p<0.01$; scores are rounded to two decimal places

To conclude, the JCAFC Project's evaluation has identified the improvement in Community support and health services domain over time. Enhanced home care services, emergency support and burial service offered by the government, business sectors and NGOs have become more age-friendly. Nevertheless, the Community support and health services domain retained its lowest ranking compared to other AFC domains. Continuous enhancement and further resources are still needed.

1.3 An overview of this report

This report sets out to introduce the concepts of healthy ageing to the community and raise readers' awareness of building a harmonious AFC. The contents of this report aim to transform the way policy-makers and service providers perceive population ageing as a whole, and stimulate potential systematic changes in the provision of community support and health services to older people. This report provides an overview of the current community support and health services in Hong Kong. It then further discusses various challenges faced by the community and health sectors and reviews a number of initiatives taken from both top-down (government effort) and bottom-up (community effort) approaches. With references to global scenarios and policy strategies, good practice recommendations and take-home messages on achieving the goal of healthy ageing are also introduced. It is hoped that the report can provide some insights into the way forward in promoting healthy ageing and building an AFC in Hong Kong.

Chapter 2 Community support and care services in Hong Kong

2.1 Ageing in place - Policy directions

'Ageing in place as the core, institutional care as back-up' has been the long-held direction of the Government's elderly care policy since 1977 (SWD Elderly information website, 2020). The principle of ageing in place advocates for older adults to age at home or in a familiar environment provided that it is acceptable and feasible. In fact, enabling older people to remain to age at home was found to be beneficial to their psychological well-being due to a sense of attachment, connection, security, familiarity, identity, independence, and autonomy (Wiles, Leibing, Guberman, Reeve, & Allen, 2012). Another study also showed that the rate of depression amongst older adults living in the community was lower compared to those living in residential care homes for the elderly (RCHEs) (Lou et al. 2011).

Within the Chinese normative context where traditional values such as filial piety, self-reliance, social support and multigenerational family cohesiveness are emphasized, it is the wish and preference of majority of older people to remain close to their family members (Chow & Lum, 2008). A local study interviewing low-income elderly Chinese city-dwellers revealed that ageing in place was highly preferable (80.4%) even if their health has deteriorated beyond independent living (Lum et al, 2016). For policy-makers and health service providers, enabling and encouraging the concept of ageing in place helps to reduce the burden associated with institutional care.

Box 2.1 Definition of ageing in place

The ability to live in one's own home and community safely, independently and comfortably, regardless of age, income or ability level (Centers for Disease Control and Prevention, 2014).

2.2 Provision of community support and care services in Hong Kong – At a glance

Long-term care services refer to the lower-level social care services that assist with instrumental activities of daily living (IADL) (Organization for Economic Co-operation and Development, 2011). In Hong Kong, most of the long-term care services are provided in the public sector by the Social Welfare Department (SWD). In collaboration with NGOs, the SWD offers comprehensive long-term care services comprising community care services and residential care services (SWD elderly information website, 2020). With a view to match the subsidized services in the welfare system with genuine needs, the government introduced 'Standardised Care Need Assessment Mechanism for Elderly Services' (SCNAMES) in 2002 and applications are processed through a central waiting list (Social Welfare Department, 2020i). Upon assessment by the SCNAMES, older adults are subsequently allocated to

different types of community and residential care services as per the assessment results and relevant care pathway.

2.2.1 Elderly centre services

Social engagement is a key to healthy ageing. A significant number of studies collectively demonstrated that active social engagement and participation are beneficial to older adults well-being through reducing depressive symptoms (Litwin, 2011), slowing cognitive decline (James, Boyle, Buchman, & Bennett, 2011a), lowering the risk of incident disability in activities of daily living (James, Boyle, Buchman, & Bennett, 2011b), and decreasing risk of mortality (Holt-Lunstad, Smith, & Layton, 2010). Elderly centre services provide a safe environment for older people to socialize and they are indispensable in supporting their domestic life and in promoting active, healthy ageing. At present, the Social Welfare Department provides three types of elderly centre services (Table 2.1); allocation is based on proximity where the elderly centre should be closely located to the elder's residential address, thereby facilitating a caring community at both the district and neighbourhood levels (Social Welfare Department, 2020a).

Table 2.1 Current provision of the Social Welfare Department elderly centre services

Elderly centre services	Scope of services
1. District Elderly Community Centres (DECCs)	• Organise various social, leisure and educational community activities for seniors • Provide services including counselling, drop-in, health education, provision of information of community resources and referral
2. Neighbourhood Elderly Centre (NEC)	
3. Social Centre for the Elderly (S/E)	
Support Teams for the Elderly (STEs) attached to DECCs	• Offer assistance to older adults with concerns through telephone contacts, home visits or personal assistance

Source: Social Welfare Department (2020a)

2.2.2 Community care services

Community care services are a significant part of Hong Kong long-term care policy. By supporting older adults and their carers in the community, community care services enable older adults to continue living in the community for as long as possible without being institutionalised (Sau Po Centre on Ageing, 2011). Various examples from around the world also showed that effective home and community care can delay institutionalization and prolong or even retain independent home life of the elderly within the community (Baland et al., 2006). Currently, the government services are either provided in a centre-based mode or in a home-based mode (Table 2.2), the latter of which is delivered by trained service teams that reach out to families in need of such services (Audit Commission, 2014).

Table 2.2 Current provision of community care services

Community care services	Service-mode	Target users (assessed by SCNAMES)	Scope of services
Integrated Home Care Services Teams (IHCS) (for ordinary cases)	Home-based	• Up to mild impairment or disability • Assessment is not required	• General household or domestic duties • Simple nursing care, environmental risk and health assessment, home escort service
Enhanced Home and Community Care Services (EHCCSs) and Integrated Home Care Services (IHCSs) (for the frail)	Home-based	• Up to moderate to severe impairment	• A comprehensive package of services according to older adults' individual needs
Day Care Centres/Units for the Elderly (DEs/ DCUs)	Centre-based	• Up to moderate to severe level of impairment • Older adults with dementia	• Personal care, nursing care, social activities and transportation to and from the centre

Sources: Social Welfare Department (2020a); Audit Commission (2014)

2.2.3 Residential care services

As the ageing process continues and health condition deteriorates, older adults may eventually require a higher level of care (Chui et al, 2009). Residential care services for older people aim to provide residential care and facilities for older people who cannot adequately be taken care of at home (Table 2.3) (Social Welfare Department, 2020h). Considering the expanding aged population and in light of a foreseeable shortage of residential care services, the Hong Kong government pushed forward a series of initiatives to increase the provision of and maintain sustainability and accessibility of residential care services, including 'Contract Homes', 'Enhanced Bought Place Scheme', 'Nursing Home Place Purchase Scheme' and 'Contract Management'.

Table 2.3 Current provision of residential care services

Residential care services	Targets	Scope of services
Care and Attention Home	Moderate impairment level	Personal and residential care
Nursing Home	Severe impairment level	Accommodation within shared rooms, with at least three meals a day and staff on duty 24 hours
Infirmary Unit	Chronically ill or disabled residing in subvented residential care homes	Additional nursing staff and physical facilities in these residential care homes to support older persons

Source: Social Welfare Department (2020a)

2.2.4 Respite services

Carers play a crucial role in taking care of the elderly. Respite services support carers by providing them with short-term relief from caring responsibilities, thereby reducing their stress and allowing time for managing their personal matters (Table 2.4) (Legislative Council, 2019a). For older persons with short-term needs or who require urgent and temporary accommodation arrangements, they can opt for 'Emergency Placement Service'. To introduce an effective information system of respite facilities, the Social Welfare Department developed a real-time platform with access to the availability of residential respite facilities in a web portal (Legislative Council Panel on Welfare Services, 2019).

Table 2.4 Current provision of respite services

Respite services	Features
Day respite service	Casual day care vacancies available
Home respite service	24-hour emergency support
Residential respite service	Casual vacancies available in nursing homes, care and attention homes, contract RCHEs, private RCHEs under the 'Enhanced Bought Place Scheme (EBPS)
Emergency residential service	Based on referrals and specific arrangements from social workers in advance

Source: Legislative Council (2019a)

2.2.5 Dementia care service

Older people with dementia living in residential care homes are supported by the Hospital Authority's Community Geriatric Assessment Teams and Psychogeriatric Outreach Teams (Legislative Council Panel on Welfare Services, Panel of Health Services, 2017). These services include formulation of treatment plans, monitoring of recovery, follow-up consultations and medication prescriptions. Additionally, a two-year pilot scheme titled 'Dementia Community Support Scheme' launched in 2017 aimed to provide care, training and support services for elderly persons with mild to moderate dementia and their carers at community level (Food and Health Bureau, 2018a). By adopting a medical-social collaborative model, the scheme sets out to stabilise progression of dementia and to minimize stress by preventing frequent visits to hospitals.

2.3 Challenges faced by the community support and care service providers

Despite the wide array of subvented community support and care services, the provision of these services remains a great challenge in a sense that they do not necessarily meet the needs of the ageing population.

2.3.1 Imbalanced provision between community care services and residential care services

Despite government's advocacy on 'ageing in place, institutional care as back-up', the provision of community care services and residential care services remains imbalanced in terms of availability and allocated expenditures. In 2014/15, the government spent a total of HK$3.9 billion on 26,325 residential care places but only HK$1.1 billion on 9,680 community care places (Legislative Council Secretariat, 2015). These figures revealed that resource allocation tilted towards residential care services rather than community care services; such an imbalance goes against the fundamental value of 'ageing in place' and resulted in a high institutional rate of older adults. It sheds light to the need to revisit the financing model so as to devise a more equitable and sustainable provision of services (Elderly Commission, 2014). A worrying trend was observed indicating that frail elderly people were inclined to seek residential care services even if they were able to age at home (Chui et al., 2009). More comprehensive and accessible community care options should be developed to encourage the utilization of community care services (Elderly Commission, 2014).

Box 2.2 Approaches to promote 'Ageing in place' in Asia

It is common to place greater emphasis on home and community care over residential care to encourage 'ageing in place' and to avoid unnecessary institutionalization (Sau Po Centre on Ageing, 2011). In **Singapore**, only SGD2.6 million was allocated to residential care as compared with SGD14.9 million on home care for frail elderly people within a budget of $30 million on programmes for healthy ageing from 2001 to 2005 (Ministry of Community Development and Sports, 2001). In **China**, the Ministry of Civil Affairs suggested a '9064' planning mode, where 90% of the elderly should receive home care whereas only 6 % should be living in elderly communities and just 4% should be institutionalized (Bian, Guo, & Wang, 2018).

2.3.2 Inadequate discharge support and transitional care

It is vital to have in place effective discharge support as it facilitates smooth returning to community living and regaining self-care ability and independence (Sau Po Centre on Ageing, 2011). Discharge support services can be provided by allied health professionals, who act as case managers and contact NGOs to arrange for home and community services such as household cleaning, home modifications/renovations and meal delivery (Lin, Luk, Mok, & Chan, 2015). Discharge support services can also be delivered in the form of transitional rehabilitation services such as transferring from an acute to a non-acute hospital for

rehabilitation, recovery and convalescence, and arranging for continued support at geriatric day hospitals and introducing community outreach teams.

Currently, the provision of discharge support services in Hong Kong is relatively limited. Despite the launch of 'Integrated Care and Discharge Support' (ICDS) programme in 2015 by the HA, the programme of discharge planning only targets older people assessed to be at high risk of unplanned readmission (Social Welfare Department, 2020a). Home care services are thus not readily available to the majority of other patients in need (Woo, Chau, & Mak, 2013). As an example, the waiting list of day care services is often long, ranging from 6 months or above, consequently, patients are often sent to private residential homes to attend to their immediate needs with no other viable alternative options (Woo, Chau, & Mak, 2013).

Box 2.3 Discharge support in Australia

To avoid institutionalization, various countries take initiatives to strengthen their systems of transitional care and discharge support. In Australia, the '**Transition Care Programme**' provides an adequate period (12 weeks) of transitional care for patients upon discharge from hospital, including social support, personal care and allied health care, to avoid them going directly to nursing homes (Department of Health, 2020).

2.3.3 Long waiting list for subsidized residential care places

Surging demands from the ageing population together with manpower shortage in the elderly-care industry lead to insufficient supply of subsidized residential care places, thereby hindering timely access to residential care services. Given the high incidence of NCDs and general physical deterioration among older people, it is somewhat ironic to observe an exponential growth in the demand for subsidized residential care services whilst the number of available/allocated residential care places remains unchanged. Consequently, there is a long waiting time in the 'Central Waiting List (CWA)'. According to the statistics from Social Welfare Department (2020j), as at September 2020, there were around 39,000 elderly applicants on various types of subsidised residential care services for the elderly in the CWA. The average waiting time for subvented care and attention places and nursing home places were 41 months and 27 months respectively. The number of elderly applicants passed away while waiting for subsidized RCS places increased from 3,392 in 2005 to 5,568 in 2014, reaching an all-time high over the preceding decade (Legislative Council Secretariat, 2015). The statistics reflected a grave concern over the inadequacy of residential care services. Moreover, due to long working hours and low salaries, frontline healthcare professionals and support staff are unwilling to stay in the elderly-care industry, resulting in high turnover rate of employment in the industry and shortage in human resources.

2.3.4 Lack of quality assurance for private residential care services

Owing to the shortage of subsidized residential care places, the privately-run RCHEs play an important role in meeting the rising needs for residential care services. However, it is worth noting that service quality of private residential care services varies across practices

and facilities, particularly in terms of spacing and staff arrangement. Currently, only some of the subvented/contracted RCHEs or those participating in the 'Enhanced Bought Place Scheme' are required to meet the quality standards as specified in the Funding and Service Agreements between the operators and the Social Welfare Department (Legislative Council Secretariat, 2015). The remaining private RCHEs not participating in the 'Enhanced Bought Place Scheme' are only required to comply with minimum standards under the Residential Care Homes (Elderly Persons) Ordinance (Cap.459) (Legislative Council Secretariat, 2015). However, this ordinance came into operation in 1996 and it is no longer effective in assuring the operational quality of RCHEs. Thus, there is an urgent need to update the statutory minimum requirements (Legislative Council Secretariat, 2015). Apart from the 'Enhanced Bought Place Scheme' and the Residential Care Homes (Elderly Persons) Ordinance, there are three independent residential care service quality accreditation schemes for RCHEs, operating on a voluntary basis (Social Welfare Department, 2020h). Only 61 out of 738 RCHEs in Hong Kong have joined in one or more of these schemes (Legislative Council Secretariat, 2015). It is clear that a universal accreditation scheme should be put forward as a compulsory requirement for licensing and ongoing operation of privately-run RCHEs.

2.4 Local initiatives

To improve quality of existing community care services, some time-limited and one-off schemes have been put forward in recent years by the Hong Kong government. Below are the local initiatives managed at both government and community levels, together with relevant supplementary information about approaches and practices from across the globe.

2.4.1 Multidisciplinary Outreaching Support Teams for the Elderly (MOSTE)

In 2019, the Social Welfare Department launched a four-year pilot scheme to bring together 'Multidisciplinary Outreaching Support Teams for the Elderly' (MOSTE), comprising social workers, physiotherapists, occupational therapists and speech therapists to provide outreach support services to users of private RCHEs (Social Welfare Department, 2020e). Members of MOSTE are responsible for onsite visits, linkage activities, clinical assessments, and rehabilitation training programmes, with regard to social and rehabilitation needs amongst the elderly residing in RCHEs. It is urged that the programme should be regularized.

2.4.2 Pilot 'Community Care Service Voucher' scheme

With a $380 million grant from the Lotteries Fund, the four-year pilot scheme introduced in 2013 aims to subsidize frail elderly persons who are on the Central Waiting List to select community care service that best suit their needs (Social Welfare Department, 2020d). The scheme adopts a new funding model, namely the 'money-follow-the-user' approach, and provides subsidies directly to the service users, whereby eligible elderly people are free to choose the types of community care service packages/service providers in accordance with their individual needs (Social Welfare Department, 2020d). Community care service providers

then seek reimbursement for the subsidies. As for the scope of the community care services covered by this pilot scheme, it is similar to that provided by day care centres (centre-based services) and EHCCS (home-based services), ranging from residential respite services, speech therapy and environmental risk assessment to on-site carer training activities.

2.4.3 Pilot scheme on Residential Care Service Voucher (RCSVs) for the elderly

To cope with the ongoing shortage of subvented residential care places, a three-year pilot scheme on residential care service voucher launched in 2017 aims to provide viable alternative options for older people on the Central Waiting List for care and attention home places to opt for private residential care services by providing a total of 3000 vouchers with each valued at $15,641 (Social Welfare Department, 2020g). For fair distribution of such resources, the pilot scheme follows the principle of 'The less an elderly person can afford, the more the government will subsidise'. Assessed by a means test, applicants will be assessed by a co-payment scale at eight levels. Similar to the community care service voucher scheme, these residential care service vouchers also adopt the 'money-follow-the-user' approach. Apart from subsidizing older adults for residential care services, the scheme also aims to enhance the quality of private RCHEs since recognized affiliated service providers are required to provide the standard service packages under the voucher scheme.

2.4.4 Reinforcing support for carers in elderly care

With a view to supplement the living expenses of carers, the Social Welfare Department launched the pilot scheme on '**Living Allowance of Elderly Persons from Low-income Families**', granting an amount of $2,400 per month to each eligible carer with a total quota of 6000 beneficiaries via the Community Care Fund (CCF) (GovHK, 2018). Apart from financial assistance, the policy agenda has a clear focus on carer training and support. Since 2014, an annual recurrent allocation of $6.7 million is provided to 210 elderly care centres for organizing training programmes under the **District-based Scheme on Carer Training** with a view to enhance basic knowledge in elderly care and cultivate culture of care for the elderly at the district level (Legislative Council Panel on Welfare Services, 2019). These training programmes cover skills to care for people with dementia or frailty, personal care, communication skills, and awareness of elderly abuse and elderly depression. In addition, given the indispensable role of foreign domestic helpers in elderly care, an 18-month **Pilot Scheme on Training for Foreign Domestic Helpers in Elderly Care** was launched, providing 300 free places for foreign domestic helpers for enrolment (Legislative Council Panel on Welfare Services, 2019). Furthermore, to enlist community resources for older people in need, the Social Welfare Department invited frontline property management personnel to join the basic training in DECCs and NECs under the '**Support for Carers Project**' (Legislative Council Panel on Welfare Services, 2019). It is anticipated that property management staff, working at the community level, can help to identify and assist the elderly persons and carers in need and enhance the delivery of vital information on welfare services.

Box 2.4 Practices on carer support from around the world

In order to protect the rights of carers for relevant government support services, countries such as Australia, Sweden, Taiwan and UK have introduced legislative measures to fully recognise and enlist the statutory rights of carers (Legislative Council Secretariat, 2020). Other regions have also implemented statutory care leaves for carers, such as Australia (at least 10 days), Canada (26 weeks), Japan (93 days), Sweden (100 days), and the UK (flexible working) (Legislative Council Secretariat, 2020).

2.4.5 Dementia-friendly community campaign

The Social Welfare Department launched a 3-year campaign to promote dementia-friendly messages and to raise public awareness about dementia (Social Welfare Department, 2020b). A series of 'Dementia Friends Information Sessions' were organized in which attendees were able to obtain information on the symptoms and treatment strategies of dementia. Upon completion, the attendees were eligible to register as internationally-recognised 'Dementia Friends', who are responsible to pay more attention to dementia care and to be ready to offer assistance to people in need. At present, there are more than 5,500 people registered as 'Dementia Friends' in Hong Kong (GovHK, 2019).

Box 2.5 Experience of dementia care support in Japan

Japan formulated a comprehensive national strategy to deal with the challenges posed by an increasing prevalence of dementia (Legislative Council Secretariat, 2017). By setting up medical centres and outreach teams to conduct dementia assessment and to provide information regarding dementia care services, the policy strategy places a great emphasis on **risk reduction, early identification and intervention** at the primary care level (Nakanishi & Nakashima, 2014). To better support carers, '**Dementia Cafés**' were established to promote socialization and peer support in a comfortable environment and to enable access of useful information and advice on dementia care (Takechi et al., 2019). As for public education, the Japanese government strives to build up networks of '**dementia friends/supporters**', with over 5.5 million dementia friends or supporters being recruited in 2015 (Hayashi, 2017).

2.4.6 District-based social engagement programmes under the JCAFC Project

There are various local district-based initiatives under the JCAFC Project to enhance community support for older people. Examples include the following:

1) **'Opening up' Elderly Community Support Project (Phase I) (寬限「耆」長者社區支援計劃(第一階段))** was organized by the Women Service Association in the Kwai Tsing district to recruit the young-old and housewives as volunteers to deliver community support for the elderly; to provide volunteer training on elderly care; to arrange physical activities and household cleaning for older people; and to conduct home visits and service matching for older community dwellers.

2) **Creating mobile community, Life becomes different (親近社區，生活變得不一樣)** was a programme implemented by the South Kwai Chung Social Service Unit. A mobile clinic was established to: (i) provide basic health monitoring/check-up services to older residents; (ii) arrange home visits to older people; (iii) deliver therapy workshops for caregivers to alleviate stress; and (iv) provide daily purchasing services on daily necessities for the frail elderly.

3) **Healthy North District 2.0 (「北露鋒芒」地區計劃)** was organised by the Cheer Lutheran Centre in the North District to strengthen the ability of the older people in health maintenance, especially those living in rural villages. The organiser provided health check services to the older people in elderly centres and village halls. In addition, outreach services were also held in rural villages to provide services such as health talks, exercise classes and nurse consultations. These services raised the awareness in health maintenance of the older people.

4) **Brain Activation READY GO (傳承動「腦」READY GO)** was organized by the Hong Kong Sheng Kung Hui Tseung Kwan O Aged Care Complex - Jockey Club District Elderly Community Centre / Day Care Unit in the Sai Kung district. The scheme offered volunteer training on communication skills with dementia patients and trained volunteers to conduct home visits and other activities to support families with dementia patients. In addition, a music group was held for older people with dementia as well as workshops for local stakeholders to promote dementia-friendly community and supporting services.

5) **Active Ageing Programme (活力耆年)** was organised by the CUHK Jockey Club Institute of Ageing to equip a group of older people to promote the concept of elderly taking care of own health through exercising and healthy diet. Exercise training classes were delivered by a health and fitness specialist from the CUHK Centre of Nutritional Studies with the aim to enhance elders' muscle strength and endurance. The participants were also trained to use the fitness facilities at the 'Elderly Corners' and to conduct place audit in the public parks in the neighbourhood. Nutrition and healthy cooking classes were organised by a registered dietitian to deliver message of healthy ageing with nutrition to the older people. The Programme motivated the participants to engage in regular exercising and promote the concept of active ageing. After the Programme, participants showed significant improvement in muscle strength and endurance of lower extremities. The percentage of participants who had a positive perception of their own health also increased after the programme.

Box 2.6 Volunteer programmes for elderly care in Australia

With the aim of improving quality of life of the elderly, Australia adopted a **Community Visitors Scheme (CVS)** (Department of Health, 2019b) which supports community-based organizations (known as auspices) to recruit, train, and match volunteers to provide regular visits to users of government-funded residential aged care and home care packages who are isolated or at risk of feeling isolated; other user groups with special needs include people from the Aboriginal and Torres Strait Islander communities, people of culturally- and/or linguistically-diverse backgrounds, people living in rural or remote areas.

2.4.7 'Innovation and Technology Fund' for gerontechnological advances

As announced in the Chief Executive's 2017 Policy Address, the $1 billion Innovation and Technology Fund was established in 2018 (Hong Kong Government, 2017). Managed by the Social Welfare Department, the fund aims to subsidize elderly and rehabilitation service units to procure, rent, or pilot-test technology products applicable in gerontology, thereby relieving the pressure and burden on care staff and carers as well as enhancing the quality of life of service users (Social Welfare Department, 2020c). A reference list of recognised technology application products was drawn up in consultation with various stakeholders. Applicants are invited to apply for procurement or rental of the items on the list. Alternatively, applicants may proactively identify suitable technology companies as working partners in order to try out new technological products.

Box 2.7 Innovative gerontechnologies in Singapore

The Singaporean government launched a financial scheme titled **Seniors' Mobility and Enabling Fund** (Ministry of Health, 2020b), to support older adults to achieve and maintain independent living in the community and also to support caregivers to better deliver home care. A wide range of assistive devices, such as walking sticks, wheelchairs, pushchairs, and personal healthcare items including adult diapers, nasal tubing, and wound dressings, are covered under the scheme.

2.4.8 NGO initiatives

Apart from the above initiatives, there are some other local initiatives implemented by NGOs, in order to provide community support for older adults and carers.

1) **Tsuen Wan and Kwai Tsing CareNet (荃灣及葵青區護耆網)** is a service network formed by different elderly service units in the district of Tsuen Wan, Kwai Chung and Tsing Yi. Liaised with the Hong Kong Society for the Aged, the service network provides mass programme, carer support, publication, rental of rehabilitation equipments, consultation and referral service to frail elderly and their carers, who live in Tsuen Wan, Kwai Chung or Tsing Yi.

2) **Blissful Care Project (「無憂照顧·樂社區」)** is another project of the Hong Kong Society for the Aged, which provides community screening and support services for the people with dementia. To increase public awareness of dementia and promote prevention and early detection, occupational therapists and social workers provide one-stop services to older adults with suspected cognitive impairment and their caregivers. Services include free screening assessment, cognitive training groups, referral services, wander prevention advice, caregivers support, public education and staff training.

3) **656carer.com (656照顧者好幫搜)** is an online information platform developed by St. James' Settlement and funded by the D.H. Chen Foundation. To provide concise, comprehensive and practical care information for elderly and caregivers, there are online resources map, discussion forum, caregiver stories, caregiving news and self-assessment tools.

4) **Jockey Club Wheelchair Repairing Service for the Elderly (賽馬會耆義樂輪計劃)** aims to provide appropriate wheelchair and mobility aids for seniors. The project recruits volunteers aged 50 or above and provides wheelchair repairing training to them. Together with physical therapists, trained volunteers visit eligible elderly's home, assess their needs, check and repair their wheelchair or mobility aids, and give donated second-hand equipments to them when necessary.

5) **The game.e123.hk (智有腦)** is a game developed by the Hong Kong Society for the Aged. Available on webpage, Android and IOS platform, the game can train older adults' five cognitive abilities, including memory, hand-eye coordination, concentration, arithmetic and decision making. Through recording and analysing user's performance, occupational therapists are able to monitor and manage user's cognitive status better and develop a more appropriate treatment plan.

6) **Jockey Club "age at home" Gerontech Education and Rental Service (賽馬會「a家」樂齡科技教育及租賃服務)** is a pilot scheme aiming to enhance the understanding on gerontechnology and its application. Two service centres are establish in Shatin and Fotan to provide educational services, rental services and cleaning and maintenance services. Older adults and carers can attend experimental learning activities and use over 1,000 rental products with professional assessment and consultation. All rental equipments are cleaned, disinfected, checked, maintained and stored well.

Chapter 3 Healthcare services in Hong Kong

3.1 Provision of healthcare services in Hong Kong – At a glance

Hong Kong healthcare sector runs on a dual-track basis (Ko, 2013). With a high subsidization rate, the public healthcare sector is a keystone to the general healthcare system. There are three major public departments providing health related-services, with Hospital Authority (HA) being responsible for delivering medical treatments, the Department of Health (DH) providing preventive services, and the Food and Health Bureau (FHB) overseeing healthcare policy implementation and resource allocation (Food and Health Bureau, 2017). Despite the provision of a wide range of healthcare services, the current healthcare system in Hong Kong is faced with challenges brought by a rapidly ageing population.

3.1.1 Primary care services

Categorized by its complexity of medical cases and specialties of the service providers, the healthcare system is generally divided into three levels of care: primary care, secondary care and tertiary care (Department of Health, 2018). Primary care is the first point of contact in the healthcare process providing basic curative services and treatment for acute and chronic disease (Table 3.1). On the other hand, secondary and tertiary care services focus predominantly on specialist consultations, ambulatory and hospital services. Traditional Chinese medicine, for example, is regarded as a vital component of the primary care sector in a sense that it emphasizes the maintenance and promotion of health and well-being rather than on curing diseases. In Hong Kong, more than 85% of primary care services are provided by the profit-driven private sector and thus many elderly services that are not sustainable on a fee-charging basis are excluded (Woo, Chau, & Mak, 2013).

Table 3.1 Current provision of primary health care services by HA

Public health services	Scope of services/ feature(s):
General Out-patient Clinics (GOPCs)	• Provide primary health care services for elders, low-income individual and patients with chronic disease
Nurse Allied Health Clinics (NAHCs)	• Situated in 40 selected GOPCs • Focus on specific forms of care such as fall prevention, wound care, continence care and drug compliance • Integrate services from nurse and allied health professionals into routine clinical practice

Sources: Food and Health Bureau (2010); Hospital Authority (2020d)

3.1.2 Preventive care services

Both an individual-based approach and a population-wide approach are applied in disease prevention. At the individual level, fee-charging preventive healthcare services are provided by the DH (Table 3.2). As an example, the **Multi-disciplinary Risk-factor Assessment and Management Programme (RAMP)** provides preventive care services to patients with hypertension and diabetes mellitus with comprehensive health risk assessment, preventive measures and follow-up care (Hospital Authority, 2010a). The programme is currently implemented in 23 GOPCs across all seven HA clusters. Services are provided by multi-disciplinary teams including nurses, pharmacists and dietitians. Besides, a two-year **Elderly Health Assessment Pilot Programme (EHAPP)** providing health assessment and consultation for the elderly, was launched by the government in collaboration with NGOs in 2013 to promote healthy ageing. The programme includes three components which are the baseline health assessment, follow-up consultations and health promotion session (Legislative Council Panel on Health Services, 2016). The initial health check-up include items such as total cholesterol and resting electrocardiogram (ECG) to assist the elderly in identifying risk factors and discovering unknown health conditions. However, the programme was criticized for the limited quotas of 10,000 people. Also, with a two-year pilot period, the lack of sustainable and long term follow-ups under the pilot programme appeared to be less appealing for some elderly, with the overall take-up rate recorded around 80% (Legislative Council Panel on Health Services, 2016). At the population level, an action plan entitled '**Toward 2025: Strategy & Action Plan to Prevent & Control Non-communicable Diseases in Hong Kong (SAP)**' was launched to reduce incidence of NCDs by modifying four behavioural risk factors: unhealthy diet, physical inactivity, tobacco use and harmful use of alcohol (Department of Health & Food and Health Bureau, 2018).

Table 3.2 Current provision of preventive care services by DH

Public health services	Scope of services/feature(s)
18 Elderly health centres (Clinic services)	**Screening services** include health assessment, physical check-up, counselling, health education
18 Visiting health teams (Outreaching services)	

Source: Department of Health (2016)

Box 3.1 Types of preventive care services

Individual-based approach is driven by interventions to disease deterioration and complications for high-risk individuals, aiming to delay the onset of chronic disease (Food and Health Bureau, 2010).

Population-wide approach aims to address the cause of chronic disease in the entire population (Food and Health Bureau, 2010).

3.1.3 Hospital care services

Older adults aged 60 years or above are one of the major users of HA hospital services (Table 3.3). A study found a disproportionate usage of inpatient beds by people aged 65 years (52%) in 2009 (Woo, Chau, & Mak, 2013).

Table 3.3 Current provision of hospital care by HA

Public health services	Scope of services/feature(s)
Accident and Emergency (A&E) department	Deliver service for critically ill or injured person with acute condition who needs urgent medical attention
Inpatient services (Acute general beds)	Provide in-hospital healthcare services after admission
Specialist Out-Patient Clinics (SOPCs)	Referrals made by GOPCs or family doctors are required

Source: Hospital Authority (2020a)

3.1.4 Rehabilitative care services

While curative services focussing on health conditions, rehabilitation services primarily manage associated functioning of health conditions (Table 3.4) (Organization for Economic Co-operation and Development, 2011).

Table 3.4 Current provision of rehabilitative services by HA

Rehabilitative services		Scope of services
Inpatient rehabilitation service	Acute hospital beds	Provide early rehabilitation during the acute phase of their illness
	Convalescent/Rehabilitation bed (C/R)	
Ambulatory rehabilitation service	Geriatric Day Hospitals (GDHs)	Provide one-stop multidisciplinary care and rehabilitation
	Rehabilitation day programmes	Deliver multidisciplinary rehabilitation services in day care setting e.g., Cardiac and Pulmonary rehabilitation
	Allied Health Outpatient (AHOP) services	Offer outpatient rehabilitation services of different disciplines
Community rehabilitation service	Allied Health Community Service	Organise outreach visits of pre-discharge, such as assessment and modification of home, and post-discharge services, such as training and case management
	Community Nursing Service (CNS)	Services aimed at empowering and improving self-care ability
	Community Geriatric Assessment Team (CGAT)	Outreach medical consultations at old age care homes

Source: Hospital Authority (2016)

3.1.5 End-of-life care services

Good end-of-life care services are important to a 'good death' experience as the final stage of the life course approaches. Concepts of 'good death' can be described as having dignity, privacy, appropriate pain relief, having control over where death happens (dying in place), having the right to refuse life-sustaining treatment, accessing emotional support, and having sufficient time to say goodbye (Smith, 2000). However, in contrast to the underlying principles of a good death, majority of older people in Hong Kong are sent to acute medical wards before death where the environment is not well-designed for dying with privacy or dignity and where spiritual/holistic care services are unavailable (Luk, 2018). Elderly people end up dying in an unfamiliar, crowded, and busy place with restricted visiting hours. Palliative care units offering single rooms for people at the end of life are inadequate and lacking in Hong Kong. Currently, there is no overarching conceptual framework for end-of-life care that considers the holistic needs from both the patients and their families (Chung & Yeoh, 2019). A wide array of end-of-life care practices and service providers in Hong Kong are summarized in Table 3.5.

Table 3.5 Currently available end-of-life care services in Hong Kong

Service provider	End-of-life care services		Scope of services
NGOs and Social Welfare Department	Social care	Hospice care	e.g., Jockey Club Home for Hospice • Allow individuals to die in place while surrounded by their loved ones (Society for the Promotion of Hospice Care, 2020)
		Bereavement counselling services	e.g., Comfort Care Concern group • Counselling support to families in need (Comfort Care Concern group, 2020)
Public healthcare sector	Palliative care	Interdisciplinary services	16 HA-run hospitals delivering comprehensive care for terminally-ill patients
		Various services	Multidisciplinary palliative care teams responsible for: • Inpatient and consultative palliative care services • Ambulatory palliative care services • Community/home palliative care services • Bereavement services • Other support services
	Community care	Regular visits to RCHEs by CGATs	Piloted 'Enhanced CGAT service for EOL care in RCHEs' • Facilitate the identification of RCHE residents to initiate advance care planning discussion • Arrange coordination of admission to various HA units (e.g., A&E department) such that appropriate care can be delivered. For instance, patients may be flagged in the central system to allow direct admission to palliative care unit.
Private healthcare sector	Variable, underdeveloped fee-for-service private businesses that provide discretionary individual case support		

Sources: Hospital Authority (2017b); Chung & Yeoh (2019)

Box 3.2 End-of-life care vs. palliative care

Both end-of-life care and palliative care aim to improve the quality of life of people with an incurable and progressive illness (Food and Health Bureau, 2018). While '**palliative care**' may be applicable in the earlier stages of life-limiting illnesses or NCDs, the term '**end-of-life care**' refers to palliative care provided at a later stage i.e. approaching the end-of-life stage of the life course.

3.1.6 Supporting patient empowerment

Supporting patient empowerment and improving health literacy and accessibility to health information are essential features of effective person-centred care approach. Patient empowerment goes beyond the mere acquisition of knowledge and understanding of their conditions and morbidities. Indeed, it focuses on helping the patients to develop self-management skills, boosting self-confidence, enhancing household capacity, and strengthening linkages of supporting network within the community and across the local healthcare system (Aujoulat, Hoore, & Deccache, 2007).

The **Patient Empowerment Programme**, a collaborative scheme run by HA and NGOs, provides empowerment sessions on disease-specific knowledge, self-efficacy enhancement, and lifestyle medication (Hospital Authority, 2010b). The programme targets patients with hypertension or type 2 diabetes mellitus specifically and offers appropriate teaching materials and aids developed by a multidisciplinary team involving allied health professionals from HA and training is provided to frontline staff in participating NGOs.

Box 3.3 The concept of self-management (or self-care) skills

Activities initiated by individuals to treat, maintain, promote and make decisions about their own health (World Health Organization, 2015).

3.1.7 Other relevant health services

3.1.7.1 Dental services

The older population is the most vulnerable group with oral health problems and suitable dental services are important to maintain general well-being. Currently, subsidized dental care services are provided by DH. The Community Care Fund Elderly Dental Assistance Programme was launched in 2012 to subsidize low-income elderly people for dental services (Legislative Council, 2019b). However, low utilization rates were recorded, which may be attributable to the inconvenient access of conventional dental care services due to frailty (Legislative Council Secretariat, 2016). In light of this issue of accessibility, the Outreach Dental Care Programme was launched in 2014 to provide on-site dental consultations/check-ups for the elderly in the community (Department of Health, 2019c).

3.1.7.2 Psychogeriatric services

Psychogeriatric services are delivered to older people with mental illness by HA through the Community Psychogeriatric Teams available across all seven clusters (Hospital Authority, 2020b). In addition, a territory-wide Elderly Suicide Prevention Programme was launched to target the depressed elderly or elderly with suicidal risk (Yeoh, 2004). The programme adopts a multifaceted model operating at two levels (Chan et al., 2011). The first tier is a fast-track clinic service pathway which focuses on early detection and screening for older adults with depression and/or suicidal risk. The second tier is specialist old-age psychiatric services provided by psycho-geriatricians in seven clinics. Follow-up mental health care of the discharged patients are provided by community psychiatric nurses (CPNs) through regular visits (Legislative Council Panel on Welfare Services, 2009).

3.2 Challenges of the healthcare service system

The current healthcare system in Hong Kong is faced with a range of challenges. There are doubts and concerns as to whether the system is able to meet the increasing healthcare demands driven by population ageing and the expanding older population.

3.2.1 Underdeveloped primary health care services and unresponsive healthcare system

The healthcare system in Hong Kong relies heavily on acute hospital-based care services while care pathways at the community and primary-care levels remain underdeveloped (Woo, 2017). Majority of hospital admission cases are in fact in stable conditions and can be managed in the primary care setting and sometimes their conditions are preventable through early detection and screening (Food and Health Bureau, 2010). Nevertheless, owing to the underdeveloped primary care setting, chronic conditions are often not addressed at the lower-tier levels.

Given the underdeveloped status of the primary care system, there is a fundamental mismatch between service delivery and the rapid and complex needs driven by an ageing population (Woo, 2017). The conventional healthcare system is a disease-based, hospital-centric model focusing on acute episodic treatment and communicable disease management. This model is insufficient in dealing with NCDs, multi-morbidities and geriatric syndromes, all of which are common observed in an ageing population. These conditions require continuous care and ongoing management over a long period of time and they are better managed in the lower-tiered community setting (Pruitt et al., 2002).

There is currently an imbalanced provision of primary care services between the private and public sectors, with the former providing most of the services. It was found that the public healthcare sector was responsible for 90-95% of hospital inpatient services but only 15-30% of primary care services (Ko, 2013; Woo, Mak, & Yeung, 2013). These findings suggest that primary care services provided by the public sector were inadequate. Moreover, there has been an overemphasis on hospital-acute-level rather than community-level healthcare service provision. For instance, rehabilitative services primarily prioritise medical rehabilitation in hospital settings and rather than focus on social rehabilitation in the community. A study in 2013 found that 86% of stroke patients under HA-run care pathways received rehabilitation services in the hospital while only 19% received day and outpatient rehabilitation services (Hospital Authority, 2016). The prioritization of hospital-inpatient rehabilitation services not only hampers the reintegration process of patients into the community but it also places unnecessary pressure on public-sector hospitals.

3.2.2 Overwhelming healthcare services with long waiting time

Owing to underdeveloped primary health care services, older people often access the Accident and Emergency (A&E) department as a mean for immediate, walk-in primary care service provision. In fact, it was estimated that nearly one-third of all A&E admissions fell into the primary care category rather than actual emergency cases (Yim, 2008). Owing to their convenient locations, high accessibility, 24-hour opening hours and low consultation fees, it is perhaps understandable that A&E services have become the first point of contact for those seeking prompt medical consultations (Woo, Mak, & Yeung, 2013). Consequently, excessive demand and burden are placed on public services, resulting in longer wait times at A&E departments and heavy workloads on A&E staff members (Hospital Authority, 2017).

Box 3.4 Emergency health services in the UK

A new model in the UK is implemented to alleviate pressure on **emergency hospital services** (National Health Service, 2017). The National Health Service (NHS) launched a national initiative to introduce evening and weekend general practitioner (GP) appointments and rolled out comprehensive clinical streaming (triage) at the frontline of all A&E departments. Introduction of 'NHS 111' offered round-the-clock clinical assessment over the phone or online for urgent medical problems and immediate advice or referrals could be effectively arranged for subsequent face-to-face consultations where appropriate. The 'Same Day Emergency Care' (SDEC) scheme was also implemented for patients presenting at hospitals with relevant conditions to receive prompt examination, diagnosis, and treatment without being admitted to a hospital ward.

As for specialist consultations, since NCDs are often not adequately addressed in the primary care setting, older patients resort to receive follow-up appointments in the Specialist Out-Patient Clinics (SOPCs). As a result, specialist services are usually crowded with long waiting lists and repeated readmissions (Woo, Chau, & Mak, 2013). For instance, from 1 July 2019 to 30 June 2020, the median waiting time of stable new NCD cases for SOPCs ranged from 115 weeks (Kowloon East Cluster) to 29 weeks (Hong Kong East Cluster) (Hospital Authority, 2020h); the waiting time for some specialties, such as Orthopaedics and Traumatology, went for as long as two years. Overall, this service overload reduces consultation time per patient and further undermines the quality of medical services.

3.2.3 Imbalanced provision between the public and private healthcare sectors

The public healthcare system is crucial for the health and well-being of the general population, providing high subsidization rates so that "no one is denied adequate medical treatment due to lack of means" (Food and Health Bureau, 2008). While healthcare service providers in the public sector serve as safety nets for the whole community, those in the private sector provide personalized choices to people with higher affordability (Ko, 2013). Despite the dual nature of the healthcare system, the heavily-funded government-run hospitals are being overrun, resulting in an array of issues such as elevated taxation to compensate for service overload and increased burden on the public hospital system, inequitable in access and imbalanced workforce distribution. Currently, consultation fees of public health services are capped at $120 for all-inclusive daily in-patient packages, $50 for GOPC, and $135 for SOPC (Hospital Authority, 2020c); consultation fees of private-sector services can range from $200 for primary-care consultations to $1,000 for specialist-level consultations (The Hong Kong Medical Association, 2018). With high subsidization, service users are understandably going to opt for low-cost public healthcare services instead of the costly private services, attributing to the overrun of public health services. It was reported in 2016 that approximately 40% of Hong Kong practising physicians working in the public sector handled 90% of the healthcare services demands from the general population (Tsang, 2016). The underlying heterogeneity between public and private healthcare sectors with increasing medical demands due to population ageing have, inevitably, further prolonged the waiting time for subsidized public services and hindered timely access to necessary consultations and treatments.

3.2.4 Fragmentation between service providers across sectors

The community care and health care service system in Hong Kong is heavily fragmented, with gaps and design flaws across all segments leading to service delivery inefficiency. At a vertical level, the dominance of a curative-care service model, there is fundamental fragmentation between primary care and hospital services. Due to a lack of cohesive linkage between sectors and across providers, the public and private sectors are yet to be fully connected, and services at the community level and long-term care pathway are affected (Our Hong Kong Foundation, 2018).

At a horizontal level, the ineffective coordination of service providers across sectors results in recurrent referrals and places a great burden on a variety of health services, in particular A&E services and SOPCs (Hospital Authority, 2017a). Older patients with comorbidity are often managed through serial referrals to multiple specialists within the same discipline instead of "one-stop" general internists or multidisciplinary teams. This phenomenon can be attributed to the poor management of follow-up cases and discharge planning. Duplication of care, overlap of services, longer waiting times, unnecessary visits to clinics/hospitals and longer durations of hospital stay are all causes of concerns for the elderly (Hospital Authority, 2017).

At a temporal level, the healthcare system in Hong Kong faces the problem of dominance of curative care model which results in weak continuity of care (Our Hong Kong Foundation, 2008). For example, the 'rotating doctors' or 'doctor shopping' behaviours observed amongst service users in the public sector demonstrated the problem of a complete lack of consistent sources of care for older patients with multimorbidity.

To conclude, the above issues collectively illustrate the potential constraints of care quality, the insufficient level of discharge support in the community, and an urgent need of synergized efforts to coordinate health services at different levels and sectors, and to better align community support and healthcare (The Jockey Club School of Public Health and Primary Care, 2017).

Box 3.5 The concept of 'Doctor shopping'

Doctor shopping is a practice of consulting more than one healthcare professional for a single episode of illness (Sansone & Sansone, 2012).

3.3 Local initiatives

This section reviews the local initiatives of healthcare services put forward at both the government and community levels, with highlighted examples of practices and approaches from around the world.

3.3.1 Community Health Centres (CHCs) and District Health Centres (DHCs)

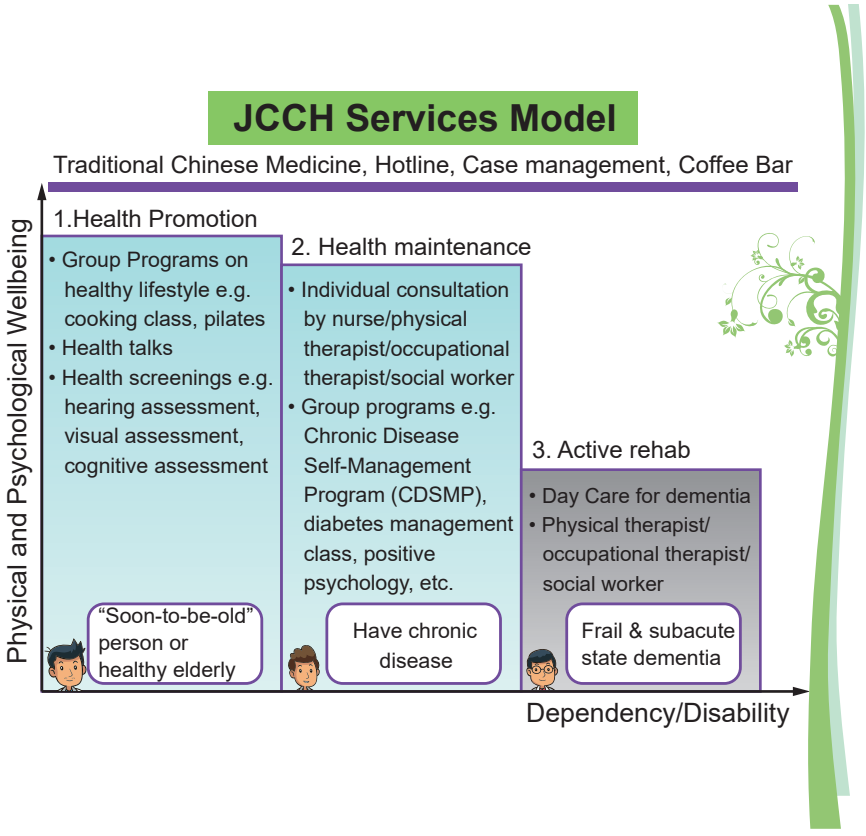
In view of the increasing prevalence of chronic and complicated conditions arising from demographic shifts, the Hong Kong government introduced district-based primary healthcare services in order to better facilitate the public's capability in self-health management and to strengthen community support for patients with complex healthcare needs. Two piloted integrated service models for delivery of primary care services were launched to shift the focus of our healthcare system from a treatment-oriented model to prevention-focused approach: Community Health Centres (CHCs) and District Health Centres (DHCs) (Food and Health Bureau, 2010).

Community Health Centres (CHCs) provide a one-stop, full-spectrum healthcare service system, comprising of GOPCs of Hospital Authority, Elderly Health Centre, Student Health Service Centre and Maternal and Child Health Centre of Department of Health (Food and Health Bureau, 2010). With the aim to provide fast, better coordinated and convenient primary care, some of the key services of CHCs include medical consultation services, health risk assessments and specific care services for chronic patients and other services such as wound care, fall risk assessment and management, smoking cessation counselling and dietetic advice under the management of multidisciplinary teams comprising medical, nursing and allied health professionals. District Health Centres (DHCs), on the other hand, serve as a service/resource hub for health promotion, disease prevention and screening, chronic disease management, and community rehabilitation (Food and Health Bureau, 2019). The first DHC, with medical-social collaboration under a dual public-private partnership, was set up in the Kwai Tsing District in 2019. This was followed by the opening of six new DHCs in other districts by the end of 2021, together with establishment of a smaller interim 'DHC Express' operated by NGOs.

3.3.2 Jockey Club Cadenza Hub (JCCH) – An integrated model of service delivery

Integration of medical and social services into one site is highly appreciated in the primary care setting. In contrast to the dependency of private healthcare services with the focus on specific conditions, an innovative experimental model of community care allows better coordination of services to meet multiple complex healthcare needs in the contexts of functional, psychological, and social well-being (Woo, Chau, & Mak, 2013). An example of such an innovative community care model is the Jockey Club Cadenza Hub (JCCH), which was established in 2006. With the vision of enhancing healthy ageing in the community by delaying deterioration and dependency, JCCH is a centre designed with the atmosphere of a club and provides seamless one-stop primary care services (Jockey Club Cadenza Hub, 2020). As shown in Figure 3.1, the three central components of this model are: (i) health promotion; (ii) health maintenance; and (iii) active rehabilitation care. These services target users at different levels, including the soon-to-be-old subpopulation and healthy older adults, NCD patients, and frail elderly. Some key features of the JCCH include medical-social integration, nurse-led operation with multidisciplinary team, individualised case management approach, support for informal caregivers, intergenerational mixing, and group programmes for NCDs (Jockey Club Cadenza Hub, 2020).

Figure 3.1: JCCH Services Model



Source: Woo (2013)

3.3.3 Preventive measures on geriatric syndromes through community screening: the Jockey Club Community eHealth Care Project

The Hong Kong Jockey Club Charities Trust launched the Jockey Club Community eHealth Care Project in 2016, in which an innovative approach is adopted to promote preventive health management among older adults (CUHK Jockey Club Institute of Ageing & Stanley Ho Big Data Decision Analytics Research Centre, 2020). In the pilot phase, personalized care plans for older adults with health and social care needs were developed as part of an integrated care model, in addition to routine screening, in-depth health assessment, and coordinated care. The care plans aimed to provide information to better manage previously identified health problems/needs and offer personalized recommendations about possible actions and interventions to improve physical and/or cognitive functions. The personalized care planning approach follows the principles of evidence-based healthcare by incorporating best external research evidence, standardized clinical practice and individual priorities and preferences. Health Maintenance-eHealth Station is another initiative by the Jockey Club Community eHealth Care Project, integrating components of health management technology into community care and professional support. The initiative drives forward the use of eHealth solutions to empower older people to achieve better self-management and independence as a form of preventive healthcare (Jockey Club Cadenza Hub, 2020).

To estimate and identify the unmet health and social care needs among older people in the community, the Jockey Club Community eHealth Care Project also implemented a territory-wide well-being survey (WBS) to screen for geriatric conditions and syndromes among older people. It was revealed that subjective memory complaints, pre-frail/frail and occasional incontinence were the three most prevalent geriatric syndromes, accounting for 71.3, 66.2%, and 37.3% amongst 2,400 older persons, respectively; difficulties in chewing and performing IADL were also commonly encountered syndromes (36.1 % and 25.8%, respectively). These research findings shed light on the needs to shift from the specialty-dominated hospital care system to an integrated care model at the community level where further health assessments and management plans are designed, executed and reviewed to better respond to prevalent geriatric syndromes, thereby reducing dependency, caregiver stress and demands on health and social care services (Woo, 2017).

A stepped-care approach in early detection and preventive care of geriatric syndromes through community screening was recently developed and piloted in Hong Kong (Woo, 2015). Physical and cognitive frailty, limitation of daily functioning and other unmet needs can be detected by frailty scale measurements. Subsequent actions would be taken according to guidelines on the management of the identified geriatric syndromes. It is believed that these geriatric syndromes are reversible and easily managed after effective health assessment and robust action plan. Recently, the JCCH strived to further strengthen primary care service delivery to a wider community through the ‘Health Promotion and Maintenance-Frailty Programme’ (Jockey Club Cadenza Hub, 2020), offering a range of services ranging from frailty prevention to frailty intervention, thereby improving musculoskeletal function, mobility and vitality, and also to prevent falls amongst the elderly.

Box 3.6 Fall prevention programmes

Older adults are at a higher risk of accidents such as falls, which may result in significant harms such as head injuries, hip fractures or even death. According to the DH, approximately one in five older adults experience a fall every year (Department of Health, 2013). Given the prevalence of falls and their serious and potentially life-threatening consequences, it is important to implement effective programmes to assess the risk of and prevent falls. Falls are often preventable and thus early detection is vital to minimize risk and eventually eases the burden associated with fall injuries for the overall healthcare system (Bergen, Stevens, & Burns, 2016). Causes of falls are multifactorial and complicated with short- and long-term relations between falls and IADL as well as life satisfaction/quality of life (Leung, 2019). Therefore, a better understanding of fall-related functional and psychological factors should be useful to the overall effectiveness of risk assessment. Fall prevention programmes as an integral component of community support and health service packages should be further promoted in the community (American Geriatrics Society, British Geriatrics Society, and American Academy of Orthopaedic Surgeons Panel on Falls Prevention, 2001). Nevertheless, systematic risk assessment of fall-related factors amongst older people living in Hong Kong is relatively uncommon.

3.3.4 Advance care planning and advance directives for end-of-life care

Advance care planning, in which a patient can express their preferences for future medical care, or make an advance directive refusing life-sustaining treatments, is an indispensable component of comprehensive palliative and end-of-life care (Food and Health Bureau, 2018b). The decision-making progress facilitated for advance care planning is driven by consensus and trust building among different parties (e.g. palliative care specialists, attending physicians, social workers, carers) and is built upon the interests and values of the patients. For effective advance care planning in the real-world setting, HA published the 'Guidelines on Advance Care Planning' in 2019 to provide practical guidance and strategic approaches to standardize the practice of advance care planning in HA-run hospitals and care homes (Hospital Authority, 2019).

Box 3.7 The concepts of advance care planning and advance directives

Advance care planning

The process of communication between the patient, healthcare service providers, family members or caregivers regarding the kind of care and services that will be considered appropriate when the patient becomes unable to make a decision (Food and Health Bureau, 2018b).

Advance directives

An advance directive is a statement, usually in writing, in which a mentally competent person indicates what medical treatment one would refuse at a future time once becoming mentally incompetent or incapable for decision-making (Food and Health Bureau, 2018b).

Advance directives, on the other hand, are implemented based on the principle of self-determination by patients, thereby preventing healthcare professionals or family members/carers from making difficult healthcare decisions on their behalf (Food and Health Bureau, 2018b). To enable a person to die with dignity and with as much comfort as possible, s/he can decide whether to withhold or withdraw any types of life-sustaining procedures. Currently, Hong Kong has neither statute nor case law regarding the legal status of advance directives. Instead, hospitals rely solely on the general requirement of obtaining patient informed consent to receive or reject medical treatments under common law. This lack of a legal jurisdiction foundation may lead to practical difficulties in the implementation of advance directives. With a view to provide the general population with more options of making informed decisions on their own treatment modalities and care arrangements, the 2018 Policy Address specifically highlighted that the government would pursue territory-wide public consultation in the subsequent year on the roles and planning of advance directives and also on the development of a solid legal framework to eliminate any potential conflict or contradiction of other laws and policies as relevant to advance directives (Legislative Council, 2019c).

Box 3.8 Jockey Club End-of-Life Community Care Project (JCECC)

To improve the quality of end-of-life care in the community, The Hong Kong Jockey Club Charities Trust launched the Jockey Club End-of-life Community Care Project (JCECC) in 2016 (Faculty of Social Sciences, 2020). By launching 'Capacity Building and Education Programmes of End-of-life', the project aimed to empower and train healthcare staff in identifying patients in need of end-of-life care, building capacity at the community level for end-of-life care planning and facilitating transparent communication among various stakeholders. The project also aimed to further promote the planning of advance directives and advocate the implementation of a robust end-of-life care model.

3.3.5 Use of electronic health records to strengthen the continuity of care

The 'Electronic Health Record Sharing System' (eHRSS) was formally launched in March 2016 by the Food and Health Bureau. All health-related data of an individual (not confined to medical treatment for illness) are recorded and stored in electronic format in a territory-wide database, and easily accessed by attending healthcare professionals and service providers across the public and private sectors; these electronic records are available for viewing and sharing in a registry based on informed consent and accessibility is restricted as per a "Need-to-know" basis for healthcare purposes only (eHealth, 2020). For patients, the eHRSS can maintain comprehensive real-time online health records and provide up-to-date information for medical/health data so as to avoid duplicate efforts in diagnosis, screening and treatment. For healthcare professionals, the eHRSS can facilitate quality assurance and enhance efficiency for day-to-day clinical practice, minimizing errors and misunderstanding associated with hardcopy paper/handwritten records. For society, the eHRSS can strengthen disease surveillance and public health monitoring using comprehensive and up-to-date statistics for developing evidence-informed public health policies and, in turn, reduce healthcare waste and bring down overall healthcare expenditure.

In the first quarter of 2021, the "eHealth"(醫健通) App was launched. Download and install the App, older adults can obtain a series of general public health information and news, access information about various Government Public-Private partnership (PPP) Programmes and public health programmes, and use the Doctor Search function to find doctors of different programmes in one stop. Register with eHealth, older adults can enjoy the additional functions, including 1) viewing own health records, e.g. medications, allergies, vaccine records and appointments, 2) adding own medical appointments to own mobile phone calendar and set reminders, and 3) checking own health care voucher balance and transaction history, and service quotas of other PPP programmes.

Box 3.9 The concepts of continuity of care

Information continuity

The utilization of information on past history and personal circumstances to deliver appropriate care (Haggerty et al., 2003).

Management continuity

A consistent and coherent management approach that is responsive to patients' changing needs (Haggerty et al., 2003).

3.3.6 Mobile technologies for effective service usage and patient empowerment

The rising popularity and acceptance of mobile applications ("apps") and wearable digital devices have transformed the ways patients and their healthcare service providers communicate and connect. The use of mobile technologies for self-monitoring and self-management in healthcare is particularly useful in the context of NCDs, for which self-care and effective health information management are essential. In this regard, HA (2020) launched 'DM care', a holistic mobile application that helps patients to better manage diabetes mellitus. For instance, it allows patients to closely monitor their physical conditions by recording and charting their blood glucose levels. The app also assists with other aspects of diabetes self-management such as medication taking, healthy eating, and physical activities (Wong, 2018).

Apart from 'DM care', HA also launched 'Stress Management DIY', 'Hip Fracture', 'HK Blood', and 'Stoma Care' to empower people with stress management, hip fracture care, blood donation, and wound management (Hospital Authority, 2020e). To facilitate effective usage of hospital services, various non-clinical mobile applications such as 'HA Go', 'HA Touch', and 'Location Map' were also introduced to smartphone users, providing information about routes to hospital buildings, floor plans and maps, current waiting list status and fees (Hospital Authority, 2020e). These are all means to empower patients for better self-care as well as to bridge the data-sharing gap between different parties for timely availability and accessibility of health-related data.

The Senior Citizen Home Safety Association developed an App called "一線通智守護". It functions as an assistant to remind older adults to take medicine timely and arrange medical

appointments. For safety, there are 24-hour emergency call and location tracking. Older adults can manage daily activities more easily and independently.

Apart from mobile technologies tailored for health services, other commonly used mobile applications, such as Facetime, WhatsApp and Zoom, also function for facilitating interaction between patients, their family members and healthcare professionals. A systematic review on studies of information and communication technology revealed that the responses to the use are predominantly positive (Lindberg, Nilsson, Zotterman, Söderberg and Skär,2013). A variety of information and communication applications can raise the accessibility of care and enable patients to gain a sense of control and independence. As developing a new technology is sometimes costly, time-consuming and difficult, making use of those existing widely-using mobile applications smartly may be more efficient and effective.

Box 3.10 The concept of health literacy

Health literacy refers to the capacity of patients to obtain, understand and utilize basic health-related information to make appropriate decisions, which is a vital skill for empowerment (World Health Organization, 1998).

3.3.7 Utilization of the Elderly Health Care Voucher (EHCV) scheme in the private sector

The Elderly Health Care Voucher (EHCV) scheme is an illustrative example of the government-initiated creative solutions to shift the sole reliance on the public healthcare sector to the private sector. With the concept of 'money-follows-patient', the vouchers allow older adults to select and utilize private healthcare services that best suit their needs (Department of Health, 2019a). Not only does the scheme help to supplement existing public healthcare services by off-loading the demands of public-sector healthcare services but it also enhances the quality and efficiency of primary care services. Under the scheme, eligible elderly persons aged 65 or above are entitled to an annual amount of $2,000 with an unutilized accumulation amount of $8,000 since 2020. The scheme covers a range of primary care services including traditional Chinese medicine, occupational therapy, physiotherapy and dental consultations and procedures. By April 2018, the usage rate of EHCVs was calculated to be around 84%, totalling over one million older adults and represented a cumulative expenditure of over $5.6 billion (Ko, 2013).

3.3.8 Introducing the Voluntary Health Insurance Scheme (VHIS) to shift service demands towards the private sector

In view of the imbalanced provision of health care services by the public and private sector, it is acknowledged that a more balanced and sustainable model of service distribution between the two sectors should be established, with the private sector taking up a fairer share of the total healthcare service provision (Ko, 2013). In 2019, the Voluntary Health Insurance Scheme (VHIS), a voluntary and government-regulated private health insurance scheme, was implemented (Food and Health Bureau, 2020). The scheme provides people, especially

those from the middle class who are willing to and can afford private healthcare services, with additional choices of private healthcare services and where they are better protected under a territory-wide strategy with regulated, value-for-money private insurance products. Through the introduction of health insurance, a degree to service usage in the public healthcare sector can be shifted to the private sector, thereby alleviating the pressure of public healthcare system and financial burden in the long run (Ko, 2013).

3.3.9 The Public-Private Partnership (PPP) programmes

The HA implemented several 'Public-Private Partnership' (PPP) programmes to better utilize the service capacity in private healthcare sector and to cater for the growing demands of public services (Hospital Authority, 2020f). The PPP programmes offer subsidized rates of additional private-sector health services, serving as additional choices for end users. Some examples of PPP programmes on chronic disease management include the 'Shared Care Programme' and 'Infirmary Service PPP'. Other examples in the acute-care setting include 'Radi Collaboration', 'Cataract Surgeries programme' and 'Haemodialysis PPP programme'. Examples of three projects involving PPPs in healthcare are summarized in Table 3.5.

Box 3.11 Definition of a public-private partnership (PPP)

Private partners deliver services in a manner that the service delivery objectives of the government are aligned with the profit objectives of the private partners (Organization for Economic Co-operation and Development, 2008).

Table 3.5 Examples of PPP programmes

PPP programme	Objective(s)	Target group	Subsidy level
Elderly Vaccination Subsidization Scheme (EVSS)	To provide subsidised seasonal influenza vaccination through participating private clinics	Older adults aged 65 years or above	$250 per dose of 23-valent pneumococcal polysaccharide vaccine and $730 per dose of 13-valent pneumococcal conjugate vaccine (in 2019/20)
General Outpatient Public Clinic Private Partnership Programme (GOPC PPP)	• To provide additional choices to patients receiving primary care services from the private sector • To promote the concept of family physicians/ family medicine • To foster the development of eHRSS	• Invitation sent to clinically-stable patients with hypertension and/ or diabetes mellitus who are currently receiving treatments at HA GOPC • Participation on a voluntary basis	The same fee charged by HA GOPC ($50), with a maximum of 10 consultations each year
Glaucoma PPP Programme	• To provide additional choices for patients to receive specialist services in the community • To manage demands for private specialist services	• Invitation would be sent to clinically stable glaucoma patients currently taken care of by HA Ophthalmology SOPCs • Participation on a voluntary basis	Same fee as for HA SOPC services

Source: Hospital Authority (2020f)

3.3.10 Government Vaccination Programme

The Government continues to provide free seasonal influenza vaccination and pneumococcal vaccination to eligible elderly. Community-living elderly persons aged 65 or above can get vaccination in General Out-patient Clinics of the Hospital Authority and designated Elderly Health Centres of the Department of Health.

3.3.11 Drug Refill Services E-Fill pilot programme (覆配易)

Aim at reducing the risks of storing excess drugs at home and drug misuse, the Hospital Authority promulgated the “E-Fill” Drug Refill services for patients aged 60 or above attending medical specialist outpatient clinics; and taking multiple drugs with medical consultation interval of 16 weeks or longer, and having multiple medical consultations or hospital admissions in between appointments. Under the scheme, patients will be dispensed drugs in batches after consultation, and pharmacist will review the conditions of patients before drug refills.

3.3.12 Jockey Club 'Embrace Health' Chinese Medicine Programme

The Jockey Club Chinese Medicine Disease Prevention and Health Management Centre launched the Jockey Club 'Embrace Health' Chinese Medicine Programme in 2018. During the COVID-19 pandemic, the centre provides free online health consultation for elderly via Zoom. This service can reduce elderly’s risk of infection and provide information of Chinese Medicine.

Chapter 4 Way forward: the future of Hong Kong as an age-friendly city

4.1 Technology-based services and advances

4.1.1 Gerontechnology

Box 4.1 Definition of gerontechnology

Gerontechnology combines gerontology with technology, and refers to the innovations and technologies customized to the needs of older people in order to prevent, delay or compensate for perceptual, cognitive, and physical declines of ageing (Millán-Calenti & Maseda, 2011).

The ageing population poses immense challenges to society, including a decline in labour force, rising costs on elderly health services and tremendous pressure on the social welfare system. It is believed that gerontechnology could fundamentally improve the livelihood of our seniors and could be the key in turning these challenges into opportunities (Zhou & Salvendy, 2018). There are various types of gerontechnological advances, ranging from wearable, implanted, stationary or portable devices to motor wheelchairs, social-interactive robots and smart homes/smart living features.

From a social perspective, innovative technology can alleviate loneliness arising from a decline in social interaction and engagement. Older people tend to spend a significant time alone and limited socialization often leads to the feelings of isolation and loneliness (Davison & Hagedorn, 2012). Given the high usage and consumer behaviours in regards to smartphones, it presents as a viable means to enable older people to stay connected to their family members and friends, increasing the level and depth of social interaction and improving their psychological well-being. However, smartphones, with significantly more functions and features compared to traditional mobile phones, can be extremely complicated for use by older adults. Therefore, from an age-friendly perspective, smartphones should be designed with a simpler interface with user-/age-friendly features and functions. Currently, a manufacturer from Sweden introduced an age-friendly smartphone named ‘Doro’ with adaptive features customized for seniors, such as louder and clearer sound settings, easy-to-read display and built-in assistance button for emergency and urgent purposes (Doro, 2019). In addition, ‘Doro’ is equipped with greater security and safety features with real-time back-up system linking to the hospitals and healthcare facilities (Doro, 2019). It is hoped that smartphones designed specifically for the elderly can be further developed in the near future.

Companion social-interactive robots pose as another innovative breakthrough, for which a gerontechnological product can provide at least a certain degree of comfort, social engagement and companionship. These therapeutic robots are designed to reduce stress

and loneliness and to stimulate social interaction between seniors and caregivers. For example, the PARO, a Japanese interactive pet-type robot with an appearance of a baby seal, was designed to target the psychological and social aspects of dementia, and to stimulate social interaction and communication without concerns of the unpredictable nature of live animals, cleanliness and allergies, as evident in animal-assisted therapy (Yu et al., 2015). Study findings involving PARO indicated that it could be a cost-effective psychosocial treatment option for reducing agitation amongst people with dementia as compared to psychosocial group activities and sensory interventions (Mervin et al., 2018).

Gerontechnology has the potential in achieving the attainable and worthy goal of 'ageing in place' through supporting frail elderly people to continue living in the community they are familiar with (Vasunilashorn, Steinman, Liebig, & Pynoos, 2012). Physical capacity deteriorates as people age. Disabilities and restricted body movements become most prevalent for people aged 70 or above (Census and Statistics Department, 2014). Assistive elderly-care technologies can enhance functional capacity and ability to perform basic daily tasks or activities. For instance, personal hygiene assistive devices such as the 'Sit and Shower' devices provide fully automated bathing experiences for older adults (Sit and Shower, 2020). Surveillance and emergency assistive systems can provide immediate assistance in urgent emergency situations (Logistics and Supply Chain MultiTech R&D Centre, 2020). There are also robotics or machineries to assist with rehabilitation and regaining of body movements. For instance, a surface electromyography (sEMG) driven exoskeleton robotic hand is designed to assist with people undergoing stroke rehabilitation (Rehab-robotics, 2020); the MedEXO Robotics group has designed exoskeleton products to provide tremor-stabilizing assistance for patients with Parkinson's disease (MedExo Robotics, 2020). It is clear that gerontechnology enhances functional capacity, facilitates independent living and delays institutionalization in the elderly; moreover, it assists caregivers in providing elderly care, thereby alleviating their burden and pressure.

Gerontechnology for elderly healthcare also plays a role in prevention. Monitoring devices such as health tracking wristband devices or non-invasive glucose monitoring devices are in place to measure and record different health-related markers parameters such as blood pressure, pulse rate, blood glucose level, respiration rate, and sleeping patterns (Kuehn, 2016). There are also gerontechnological products designed specifically for older adults or those living with chronic conditions, including Alzheimer's disease and dementia (Robert et al., 2013). A mobile application named 'Brainastic' offers brain training games and exercises as part of cognitive assessment for elderly people, allowing early detection and diagnosis of cognitive impairment and dementia (Mindvivid, 2020). It is worth noting that further clinical validation and careful analysis of data are required before these technological innovations are made widely available, and acceptable, to the aged population (Kuehn, 2016).

As the population becomes more educated with an increase in accumulated assets, there is undoubtedly a higher demand for enhanced quality of life (Census and Statistics Department, 2017). The application of gerontechnological advances by the public is expected to become more popular. Yet, due to the natural decline in functional capacity as people age, it is

important to bear in mind that any information and technology devices should be user-oriented and, in the context of gerontechnology, age-friendly.

4.1.2 Telecare and telemedicine

Telecare and telemedicine (often collectively referred to as telehealth) play an important role in the field of geriatrics since older persons with mobility problems or physical disabilities often find it difficult to access the traditional form of clinic-based healthcare services (Hui, Woo, Hjelm, Zhang, & Tsui, 2001). Telecare and telemedicine open up opportunities for slightly more pleasant experiences for community-dwelling older people or the frail elderly to access health services remotely. This in turn saves time and costs for nursing homes as arranging transportation and escort services for older or disabled residents can be difficult.

Telecare can offer seniors a wide spectrum of healthcare services, ranging from chronic care management to online therapy, from remote counselling to health interventions and home monitoring (Sullivan, 2018). Telecare has been demonstrated to be a feasible and acceptable approach to provide rehabilitative services. Existing pilot studies assessed the effects of telecare interventions and programmes for the following purposes: for cognitive assessment and treatment for mild dementia or mild cognitive impairments (Poon, Hui, Dai, Kwok, & Woo, 2005); educational programme regarding diet, glucose monitoring and foot care for patients with diabetes (Chan, Woo, & Hui, 2005); diagnosis and management of foot disorders for podiatric patients (Corcoran, 2003); exercise programme for older adults with knee pain (Wong, Hui, & Woo, 2005); community-based stroke rehabilitation programme to stroke patients (Lai, Woo, Hiu, & Chan, 2004); incontinence programme for older women with urge or stress incontinence in the community (Hui, Lee, & Woo, 2006).

Telecare may pose as a viable healthcare service delivery mode in public health emergency situations. In the case of the 2019 coronavirus pandemic, longer waiting time for non-emergency medical appointments together with the reluctance by the public to proactively seek medical advice/healthcare services posed great hurdles to the existing healthcare system (South China Morning Post Editorial, 2020). In this regard, telecare and telemedicine were revealed to be a satisfactory triage system for early identification as well as management of critical care.

Geriatricians also welcome the availability of telecare as remote/virtual arrangements save time and increase productivity. Very often, the outreach clinics and CGAT clinicians were only able to visit the frailest residents on a per-quota system, or, in the worst–case scenario, none of the healthcare professionals were able to visit patients with urgent medical conditions in a timely manner due to heavy workload in the hospitals. Furthermore, due to the multidisciplinary nature of gerontology, services could prove to be difficult to be organized and delivered in a clinic setting (Hui, Woo, Hjelm, Zhang, & Tsui, 2001). Telecare and telemedicine facilitate the smooth and ongoing delivery of necessary healthcare services for older adults in need of such multidisciplinary geriatric services. Moreover, telecare serves as a triage for urgent medical problems and shifts the management of chronic conditions

from the hospital to the community setting. A local pilot study was executed to connect a community-based geriatric assessment team to a 200-bed nursing home through telecare for medical consultations, replacing the conventional clinic or outreach visits. With a total of 1001 consultations being conducted, the findings suggested that telemedicine was adequate for service delivery in up to 60% to 99% of the cases, depending on the specialty. The study also revealed 9% fewer visits to the A&E department and a 11% reduction of admission to an acute hospital ward, enhancing the productivity and contributing to cost-savings (Hui & Woo, 2002). This study has demonstrated that telemedicine could be a feasible means of care delivery to a nursing home.

Besides, there are geographical advantages in Hong Kong where community centres are relatively accessible on foot or by the city's efficient public transport system. The mode of community care service delivery could also be designed so that older adults are organized in a group and group activities are then led by designated staff or trained volunteers in community centres using a telecare (Chan, Woo, & Hui, 2005).

Despite the advantages mentioned above, safety concerns have been raised over telemedicine for which symptoms may be easily missed by the consulting clinicians given that there is no 'in-person' interaction, resulting in undiagnosed or misdiagnosed problems (David, 2020). There are also issues of liability, leaving service providers at risk of liability claims of negligence (David, 2020). To rectify this potential issue, it is recommended that telecare and telemedicine are used specifically in the follow-up cases, where the patient is already known by the responsible geriatrician; for initial assessment of new cases face-to-face interviews and physical examinations remain mandatory (Hui, Woo, Hjelm, Zhang, & Tsui, 2001).

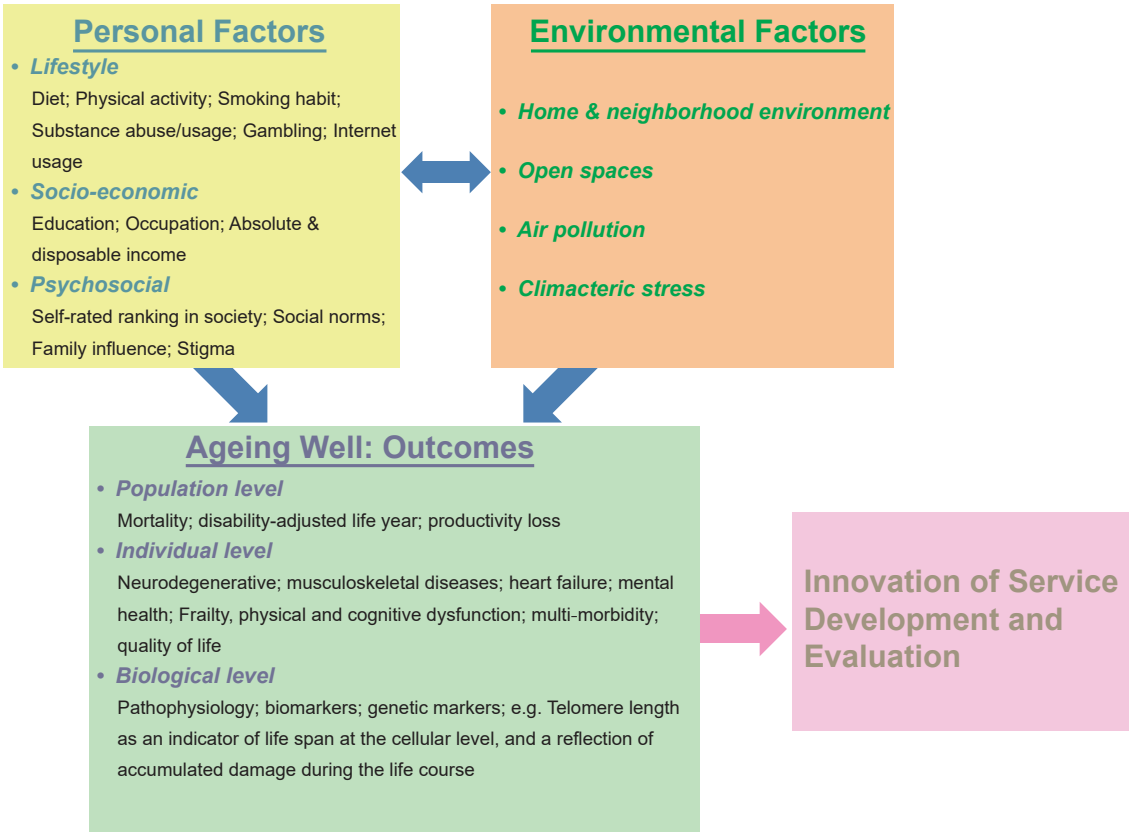
4.2 Multidisciplinary approach to providing age-friendly community support and health services in Hong Kong

4.2.1 Primary care and person-centred care services

It is of vital importance to design a healthcare system that is aligned with the needs of older people. Shifting from the hospital-based, physician-centred, episodic and acute care model, primary care should be further developed where people-centred service delivery is strengthened to people of all age groups and to cater for the holistic needs of individuals. People are encouraged to take ownership for their own health and it is important to develop an assessment that can cover physical, mental, social and spiritual needs of individuals for better delivery of holistic people-centred care model (Our Hong Kong Foundation, 2018).

When the focus of public health policy shifts from acute care to integrated care, primary care, long-term care that require preventive and monitoring measures against chronic conditions (Woo, 2017), an integrated framework that covers all relevant contributory factors to healthy ageing is required to fully drive forward a multidisciplinary effort, achieving the goal of age-friendly community support and health services. Such a holistic framework should take into consideration the individual risk factors such as lifestyle, socioeconomic status and the psychosocial factors as well as the physical and social environmental factors (Figure 4.1) (Woo, 2017). These factors are often neglected and yet contribute to ageing well.

Figure 4.1 An integrated framework for ageing well



Source: Woo (2017)

4.2.1.1 Strengthening home and community care services

The importance of home community care services is well recognized. Effective home and community care services allow older adults to stay in their own community and reduce institutionalization (Chui, 2011). Given that the current home and community care services primarily focus on serving older persons assessed to be of moderate and severe level of impairment, it has been suggested that people with mild impairment are managed through enhancing IHCS (Elderly Commission, 2014). Furthermore, a stringent quality assurance system to monitor the quality of home care services should be enhanced within the funding modes of the voucher system.

Box 4.2 Home and community care services: global lessons

Various countries are devoted to providing high-quality community-based in-home services for elders (Sau Po Centre on Ageing, 2011). In **Canada**, 'Integrated Services for Frail Elders', a programme of integrated care for vulnerable elderly people living in the community, contributed to a 50% reduction in alternate level inpatient stays, in which patients remain in hospital awaiting nursing home (Béland et al., 2006). The Community Aged Care Package (CACP) in **Australia** also is in place to enable older adults to remain living in the community instead of being institutionalized (Eleazer & Fretwell, 1999). In the **US**, 'Federal Medical Assistance Percentage (FMAP)' is provided for a period of one year to older adults who move from an institution to a qualified home and community-based programme, as a form of encouragement to live and age in their own community (Congressional Research Service, 2020).

4.2.1.2 Improving discharge support

Effective provision of home and community care services upon hospital discharge is important as it prompts the provision of longitudinal care, reduces readmission rates and minimizes the risk of further attendance to A&E departments (Chui, 2011). For some older persons, particular those who are newly discharged from hospitals, their needs for proper and comprehensive care services are transient in nature (Elderly Commission, 2014). For seamless service delivery where the elders are able to transit smoothly along the corresponding care pathways, coordinated referral mechanisms are indispensable. Thus, an interface between the medical/clinical sector service providers and community-level primary care centres should be strengthened and the predominant provision of private primary care services should be rectified such that frail elderly patients may be managed continuously on a regular basis.

4.2.1.3 Enhancing health prevention in the community

DECCs and NECs should reinforce their roles in promoting healthy, active ageing. A greater focus should be placed on early identification of individual needs so as to provide appropriate assistance and referrals in advance. For example, identifying relevant health risks as attributed to obesity and falls can help mitigate the risk of related and more severe conditions such as cardiovascular diseases and fractures as early as possible (Sau Po Centre on

Ageing, 2011). Greater emphasis should also be placed on preventing deterioration for elderly people with mild levels of impairment.

Public health prevention programmes targeting avoidable mortality risks also leave some room for improvement (Woo, Chau, & Mak, 2013). The rationale of these preventive programmes is that certain causes of death are avoidable upon the implementation of effective interventions. In Hong Kong, cancers of the colon, breast, and rectum are major causes of death; however, existing evidence indicated that both colorectal cancer and breast cancer could be prevented through early detection of tumour markers and other alarming symptoms (Starfield, Shi, & Macinko, 2005). However, in Hong Kong population-wide health screening for certain cancers remains inadequate and screening tests are often costly.

Box 4.3 Health prevention in Singapore

Policy strategies were introduced by the Singaporean government to incorporate preventive health care services into the community and to fully utilize community resources to promote physical well-being (Yuen, Močnik, Yu, & Yap, 2020). The '**Project Silver Screen**' provides regular health screening of vision, hearing, and oral health in easily-accessible community centres or residents' committees to monitor functional ability of Singaporeans aged 60 years or above (Singapore Silver Pages, 2020). The '**Community Network for Seniors**' project brings together various parties from the network to conduct home visits, providing basic healthcare and preventive services (e.g. screening) to neighbourhoods (Gov.sg, 2020).

4.2.1.4 Promoting healthy lifestyle and active ageing

Healthy, active ageing depends on good physical and psychological health statuses. The importance of a vibrant and positive community should be recognized for optimum social networking and responding to healthcare needs for all within the community. Community-based initiatives to promote an active lifestyle through healthy balanced diet and regular exercise are of vital importance and DECCs and NECs are best placed to exert their roles in promoting healthy living and active ageing (Elderly Commission, 2014).

Box 4.4 Promoting healthy living: initiatives in Singapore

Health policies and campaigns directed towards promoting a healthy lifestyle for all and creating age-friendly communities are in place in Singapore (Yuen, Močnik, Yu, & Yap, 2020). Organized by the Ministry of Health (2020a), the **Active Ageing programmes** involving exercise sessions such as dancing (Zumba Gold, K-Pop fitness), health promotion/healthy living workshops and other social activities such as Karaoke and Rummy-O session were implemented at the neighbourhood level.

An exercise campaign named '**You Can Get Moving**' was introduced by the Singapore Health Promotional Board (2017) aiming to improve older adults' physical strengths, balance and flexibility, with exercise programmes designed with simplicity (minimal need for equipment) and attention to safety measures.

4.2.2 Cohesive integration on service providers across all levels

In Hong Kong, several healthcare departments and units in the public sector are responsible for providing health and medical services and long-term care services, namely the Hospital Authority, Department of Health and Social Welfare Department. Given the increasingly diverse nature of community care and support services such as elderly centre services, community care services, and other community support services (SWD elderly information website, 2020), a cohesive, integrated approach is required to facilitate better access to appropriate services and to strengthen the interoperability of various systems across the spectrum (Legido-Quigley et al., 2020). Sophisticated medical-social collaboration/ integration within and across service providers/sectors via reformed inter-sectoral policy strategies and sufficient funding resources is much needed. Further groundwork, such as evaluation of policy measures and real-world issues, cross-sector engagement involving all service providers and formulation of quality standards and strategic milestones for service optimization, should be regularly reviewed for better efficiency and applicability (Yeo 2017).

4.2.2.1 Integration of medical and social services

Medical-social integration, for example by providing holistic care in local communities, helps to redistribute resources and enables the community and social sectors to each take on more responsibilities in service provision (The Economist Intelligence Unit, 2015). Such cross-sector collaboration alleviates pressure of the overrun public health system and also increases the availability of resources for long-term care, reducing unnecessary hospitalization and emergency admission. As a matter of fact, enhancing collaboration between medical and social has been found to minimize the associated healthcare costs. A recent study reported that, by investing every $1 in community care services, $8.4 of acute-care costs could be saved; investing every $1 in Outbound CGST services led to a saving of $7.6 in acute-care costs (Our Hong Kong Foundation, 2018). For rehabilitative services, medical social workers could act as service coordinators, facilitating the linkage between rehabilitation programmes at the community level (such as those organized by NGOs) and medical rehabilitation at the hospital level.

4.2.2.2 Feasibility of a ‘Chronic Disease Management Voucher’ scheme

Existing research findings illustrated that the EHCV scheme was ineffective in achieving its primary objective – to promote continuous doctor-patient relationship – due to the following: (1) insufficient subsidy amount; (2) low enrolment rate among primary health care professions; (3) uneven distribution of enrolled healthcare professionals; and (4) people requiring acute and episodic care services were the major users (The Hong Kong Medical Association, 2015). In their report titled ‘An investment for the Celebration of Aging’, Our Hong Kong Foundation proposed a ‘Chronic Disease Management Voucher’ scheme that focuses specifically on NCD management, such as programmes to prevent disease progression and health deterioration or subsidized screening tests of hypertension and diabetes (Our Hong Kong Foundation, 2018). Findings from further analysis of this proposed scheme suggested that

vouchers for NCD management could be a cost-effective policy measure (CUHK Jockey Club School of Public Health and Primary Care 2017).

4.2.2.3 Using the electronic health record system

The use of an electronic registry of health records for patients, especially older patients who have a longer medical history, is a key feature of modern-day health systems. In Hong Kong, a new initiative of developing a 'Health portal' as part of the eHRSS was recently recommended (Our Hong Kong Foundation, 2018). This online platform serves as an information hub for promoting self-management and empowering people to closely monitor their own health status, and to integrate them into the care process.

4.2.2.4 Optimizing the telephone booking system for medical appointments

The telephone booking system for medical appointments in Hong Kong is in need of further optimization. It has been suggested that the booking system could be expanded from telephone to a web-based online system (similar to the 'Health portal' mentioned above). Efforts were in place in making the system more user-friendly, such as replacing computerised voice automation system with authentic human voice to make it easier to listen/understand, extending the response time for users to input data and simplifying the procedures of data entry (Legislative Council, 2015); however, feedback collected from end users indicated that a manually-operated telephone appointment system with real-time response from a helpline assistant was preferred.

4.2.2.5 Resilience of healthcare system amid global pandemics

In the case of global public health emergencies such as a pandemic, the public- and private-sector health service providers are at the forefront of facing the consequences and a sudden, exponential surge in hospital admissions and healthcare demands is a huge challenge (Delivorias & Scholz, 2020). It is, therefore, critically important to better integrate services across other sectors in order to synergize efforts and abilities to respond to the unexpected changes and substantial impact to the health system (Hanefeld et al., 2018; Legido-Quigley et al., 2020). The dual-track basis of the Hong Kong health system with intertwined public and private healthcare sectors should be regularly reviewed for service optimization and for swift response to unforeseeable circumstances. Outbreak of a communicable disease, such as influenza, lasts for a limited duration only and thus requires short-term treatment strategies. However, for global pandemics, the sudden surge of hospital admission and requirement of long-term treatment warrant better preparedness from all health systems (Delivorias & Scholz, 2020).

Box 4.5 Response to public health emergencies: the Irish experience

Ireland set up a 'Community Response Forum' in each local health authority to provide services to vulnerable residents affected by the COVID-19 pandemic and lockdown restrictions (Age Friendly Ireland, 2020). The 'COVID19 Community Response Helpline' helps to arrange for basic services such as meal deliveries and local transportation; in collaboration with ALONE, a charitable organization, the helpline also provides emotional support and counselling services for older adults in need during lockdown and social isolation. Online physical activity classes are uploaded online to allow older people affected by the pandemic to stay physically active whilst staying at home. Additionally, regular inclusive 5-minute round-up of all updated information and news, available community resources and activities, are provided (Age Friendly Ireland, 2020).

References

Age Friendly Ireland. (2020). Home. Ireland. Retrieved from https://agefriendlyireland.ie/

AgeUK London. (2020). Community support & health services. The UK. Retrieved from https://www.ageuk.org.uk/london/projects-campaigns/age-friendly-london/community-support--health-services/?utm_content=bufferbb13e&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer

American Geriatrics Society, British Geriatrics Society, & American Academy of Orthopaedic Surgeons Panel on Falls Prevention. (2001). Guideline for the prevention of falls in older persons. *Journal of the American Geriatrics Society*, *49*, 664–672. https://doi.org/10.1046/j.1532-5415.2001.49115.x

Audit Commission. (2014). Provision of long-term care services for the elderly. Audit Commission, the Government of the HKSAR. Retrieved from https://www.aud.gov.hk/pdf_e/e63ch01.pdf

Aujoulat, I., d'Hoore, W., & Deccache, A. (2007). Patient empowerment in theory and practice: Polysemy or cacophony? *Patient Education and Counseling*, *66*(1), 13–20. https://doi.org/10.1016/j.pec.2006.09.008

Bergen, G., Stevens, M. R., & Burns, E. R. (2016). Falls and fall injuries among adults aged ≥65 years - United States, 2014. *Morbidity and mortality weekly report*, *65*(37), 993–998. https://doi.org/10.15585/mmwr.mm6537a2

Béland, F., Bergman, H., Lebel, P., & Clarfield, A. M., Tousignant, P., Contandriopoulos, A. & Dallaire L. (2006). A system of integrated care for older persons with disabilities in Canada: Results from a randomized controlled trial. *The Journals of Gerontology: Series A: Biological sciences and medical sciences*, *61*(4), 367-43. https://doi.org/10.1093/gerona/61.4.367

Beard, J. R., Officer, A., De Carvalho, I. A., Sadana, R., Pot, A. M., Michel, J. P., . . . Chatterji, S. (2016). The World report on ageing and health: A policy framework for healthy ageing. *The Lancet*, *387*(10033), 2145-2154. https://doi.org/10.1016/S0140-6736(15)00516-4

Beyer, K. M. M., Kaltenbach, A., Szabo, A., Bogar, S., Nieto, F. J., & Malecki, K. M. (2014). Exposure to neighborhood green space and mental health: Evidence from the survey of the health of Wisconsin. *International Journal of Environmental Research and Public Health*, *11*(3), 3453-3472. https://doi.org/10.3390/ijerph110303453

Bian, S., Guo, Q., & Wang, X. (2018). Construction of a senior service system in the context of a healthy China. *Global Health Journal*, *2*(4), 28-34. https://doi.org/10.1016/S2414-6447(19)30175-7

Buildings Department. (2008). *Design Manual Barrier Free Access 2008*. Buildings Department, the Government of the HKSAR. Retrieved from https://www.bd.gov.hk/doc/en/resources/codes-and-references/code-and-design-manuals/BFA2008_e.pdf

Census and Statistics Department. (2014). *Special Topics Report No. 62. Persons with disabilities and chronic diseases*. Census and Statistics Department, the Government of the HKSAR. Retrieved from http://www.statistics.gov.hk/pub/B11301622014XXXXB0100.pdf

Census and Statistics Department. (2017). *Feature article - Hong Kong population projections for 2017 to 2066, Hong Kong Monthly Digest of Statistics*. Census and Statistics Department, the Government of the HKSAR.

Centers for Disease Control and Prevention. (2014). *Healthy places terminology*. Centers for Disease Control and Prevention, the Government of the HKSAR. Retrieved from http://www.cdc.gov/healthyplaces/terminology.htm

Chan, S., Leung, V., Tsoh, J., Li, S., Yu, C., Yu, G., Poon, T., Pan, P., Chan, W., Conwell, Y., Lam, L. & Chiu, H. (2011). Outcomes of a two-tiered multifaceted elderly suicide prevention program in a Hong Kong Chinese community. *The American Journal of Geriatric Psychiatry, 19*(2), 185 – 196. https://doi.org/10.1097/JGP.0b013e3181e56d0f

Chan, W. M., Woo, J., Hui, E., Lau, W. W. Y, Lai, J. C. K, & Lee, D. (2005). A community model for care of elderly people with diabetes via telemedicine. *Applied Nursing Research*, *18*(2), 77-81. https://doi.org/10.1016/j.apnr.2004.11.002.

Chief Executive HKSAR. (2013). *Providing decent homes for elderly*. Hong Kong Government. Retrieved from https://www.ceo.gov.hk/archive/2017/eng/blog/blog20130528.html

Chow, N., & Lum, T. (2008). *Trends in family attitudes and values in Hong Kong: Final report*. Department of Social Work and Social Administration, the University of Hong Kong. Retrieved from http://hdl.handle.net/10722/159856

Chui, E. (2008). Ageing in Place in Hong Kong – challenges and opportunities in a capitalist Chinese city. *Ageing International*, *32*(3), 167-182. https://doi.org/10.1007/s12126-008-9015-2

Chui, E., Chan, K., Chong, A., Ko, L., Law, S., Law, C., Leung, E., Leung A., Lou, V. & Ng, S. (2009). *Elderly Commission's Study on Residential Care Services for the Elderly. Final report*. Elderly Commission. Retrieved from https://www.elderlycommission.gov.hk/en/download/library/Residential%20Care%20Services%20-%20Final%20Report(eng).pdf

Chui, E. (2011). Long-term care policy in Hong Kong: Challenges and future directions. *Home Health Care Services Quarterly*, *30*(3), 119–132. https://doi.org/10.1080/01621424.2011.592413

Chung, R. & Yeoh, E. (2019). Chapter 3 Policy direction for end-of-life care in Hong Kong. In K. N. Chan, H. C. Fong, Y. Wong, W. Q. Lou, & L. W. Chan, (Ed.), *Innovation· Impact: The Foundation of Community-based End-of-Life Care in Hong Kong* (pp.41-56). The Jockey Club End-of-Life Community Care Project. Retrieved from http://www.socsc.hku.hk/JCECC/case_book/HKU_SS_JCECC_book.pdf

Comfort Care Concern Group. (2020). *Services.* Retrieved from https://www.cccg.org.hk/service/

Congressional Research Service. (2020). *Medicaid's Federal Medical Assistance Percentage (FMAP)*. Congressional Research Service. Retrieved from https://fas.org/sgp/crs/misc/R43847.pdf

Corcoran, H., Hui, E., & Woo, J. (2003). The acceptability of telemedicine for podiatric intervention in a residential home for the elderly. *Journal of Telemedicine and Telecare, 2003*(9), 146-149. https://doi.org/10.1258/135763303767149942.

CUHK Jockey Club Institute of Ageing & Stanley Ho Big Data Decision Analytics Research Centre. (2020). *Jockey Club Community eHealth Care Project - Project evaluation: Final report*. The Chinese University of Hong Kong.

David, E. (2020, 7 May). *Hong Kong: Telemedicine – Necessity is the mother of adoption. But barriers remain*. Mondaq.com. Retrieved from https://www.mondaq.com/hongkong/healthcare/929614/telemedicine-necessity-is- the-mother-of-adoption-but-barriers-remain

Davison, G. & Hagedorn A. (2012). Chapter 22 - Technology and Ageing. In J. R. Beard, S. Biggs, D. E. Bloom, L. P. Fried, P. Hogan, A. Kalache, and S. J. Olshansky (Ed.), *Global Population Ageing: Peril or Promise?* (pp. 107-111). Geneva: World Economic Forum, 2011. Retrieved from https://demographic-challenge.com/files/downloads/6c59e8722eec82f7ffa0f1158d0f4e59/ageingbook_010612.pdf

Delivorias, A. & Scholz, N. (2020). *Economic impact of epidemics and pandemics*. European Parliament. European Parliamentary Research Service. Retrieved from https://www.europarl.europa.eu/RegData/etudes/BRIE/2020/646195/EPRS_BRI(2020)646195_EN.pdf

Department of Health. (2013). *Non-communicable diseases watch. Falls in the elderly*. Hong Kong Government. Retrieved from https://www.chp.gov.hk/files/pdf/ncd_watch_nov2013.pdf

Department of Health. (2016). *Elderly health service. Health information. Dementia*. Hong Kong Government. Retrieved from https://www.elderly.gov.hk/english/common_health_problems/dementia/dementia.html

Department of Health. (2018). *Concept of primary care and family doctor*. Hong Kong Government. Retrieved from https://www.fhb.gov.hk/pho/english/careyou/concept.html

Department of Health. (2019a). *Background of Elderly Health Care Voucher Scheme*. Hong Kong Government. Retrieved from http://www.hcv.gov.hk/eng/pub_background.htm

Department of Health. (2019b). C*ommunity Visitors Scheme National Guidelines*. Australian Government. Retrieved from www.health.gov.au/resources/publications/community-visitors-scheme-cvs-national-guidelines

Department of Health. (2019c). *Dental services. Community special dental service*. Hong Kong Government. Retrieved from https://www.dh.gov.hk/english/main/main_ds/main_ds_dcp.html

Department of Health. (2020). *Transition Care Programme*. Australian Government. Retrieved from https://www.health.gov.au/initiatives-and-programs/transition-care-programme#:~:text=This%20program%20helps%20older%20people,approved%20providers%20of%20transition%20care.

Department of Health & Food and Health Bureau. (2018). *Towards 2025 strategy and action plan to prevent and control non-communicable diseases in Hong Kong.* Department of Health & Food and Health Bureau, the Government of the HKSAR. Retrieved from https://www.chp.gov.hk/files/pdf/saptowards2025_fullreport_en.pdf

Doro, A. B. (2019). *Doro. Service*. Sweden, Norway and the UK. Retrieved from https://www.doro.com/en-gb/services/response-by-doro/

eHealth. (2020). *Electronic health record sharing system records*. Hong Kong. Retrieved from https://www.ehealth.gov.hk/en/about_ehrss/electronic_health_record/index.html

Eleazer, P., & Fretwell, M. (1999). The PACE model (Program for All Inclusive Care of the Elderly): A review. In P. Katz, R. Kane, & M. Mezey (Eds.), *Emerging Systems in Long-Term Care Organization*. New York: Springer Publishing. (pp. 88-117).

Elderly Commission. (2014). *Elderly Services Programme Plan*. Elderly Commission, the Government of the HKSAR. Retrieved from https://www.elderlycommission.gov.hk/en/download/library/ESPP_Final_Report_Eng.pdf

Faculty of Social Sciences. (2020). *Jockey Club End-of-Life Community Care Project. Capacity Building and Education Programmes on End-of-life Care*. Faculty of Social Sciences, The University of Hong Kong. Retrieved from http://foss.hku.hk/jcecc/en/cuhk-jockey-club-institute-of-ageing/

Food and Health Bureau. (2008). *Synopsis of healthcare financing studies: Projection of Hong Kong's healthcare expenditure*. Food and Health Bureau, the Government of the HKSAR. Retrieved from https://www.fhb.gov.hk/beStrong/files/consultation/projecthealthexp_eng.pdf

Food and Health Bureau. (2010). *Primary care development in Hong Kong: Strategy document*. Food and Health Bureau, the Government of the HKSAR. Retrieved from https://www.fhb.gov.hk/download/press_and_publications/otherinfo/101231primary_care/e_strategy_doc.pdf

Food and Health Bureau. (2017). R*eport of the Strategic Review on Healthcare Manpower Planning and Professional Development.* Food and Health Bureau, the Government of the HKSAR. Retrieved from https://www.fhb.gov.hk/download/press_and_publications/otherinfo/180500_sr/e_sr_final_report.pdf

Food and Health Bureau. (2018a). *Dementia Support Scheme*. Hong Kong Government. Retrieved from https://www.fhb.gov.hk/en/press_and_publications/otherinfo/180500_dcss/dcss_index.html

Food and Health Bureau. (2018b). *End-of-life Care: Legislative proposals on advance directives and dying in place - consultation document*. Food and Health Bureau, the Government of the HKSAR. Retrieved from https://www.fhb.gov.hk/download/press_and_publications/consultation/190900_eolcare/e_EOL_care_legisiative_proposals.pdf

Food and Health Bureau. (2019). *District health centre*. Hong Kong Government. Retrieved from https://www.dhc.gov.hk/en/index.html.

Food and Health Bureau (2020). *Voluntary Health Insurance Scheme. About VHIS*. Hong Kong Government. Retrieved from https://www.vhis.gov.hk/en/about_us/scheme.html

GBD 2015 DALYs & HALE Collaborators. (2016). Global, regional, and national disability-adjusted life-years (DALYs) for 315 diseases and injuries and healthy life expectancy (HALE), 1990–2015: A systematic analysis for the Global Burden of Disease Study 2015. *The Lancet*, *388*, 1603–1658. https://doi.org/10.1016/S0140-6736(16)31460-X

GovHK. (2018). *Community Care Fund continues to support carers of elderly persons and persons with disabilities from low-income families*. Hong Kong Government. Retrieved from https://www.info.gov.hk/gia/general/201808/01/P2018080100206.htm?fontSize=1

GovHK. (2019). *Government strives to build dementia and elderly friendly community.* Hong Kong Government. Retrieved from https://www.info.gov.hk/gia/general/201901/26/P2019012500838.htm?fontSize=1

Gov.sg. (2020). *Caring for our seniors*. Singapore Government. Retrieved from https://www.gov.sg/article/caring-for-our-seniors

Haggerty, J., Reid, R., Freeman, G., Starfield, B., Adair, C., & Mckendry, R. (2003). Continuity of care: A multidisciplinary review. *The BMJ*, *327*(7425), 1219-1221. Retrieved from https://doi.org/10.1136/bmj.327.7425.1219

Hanefeld, J., Mayhew, S., Legido-Quigley, H., Martineau, F., Karanikolos, M., Blanchet, K., . . . Balabanova, D. (2018). Towards an understanding of resilience: Responding to health systems shocks. *Health Policy and Planning*, *33*(3), 355-367. https://doi.org/10.1093/heapol/czx183.

Hayashi, M. (2017). The Dementia Friends Initiative – supporting people with dementia and their carers: Reflections from Japan. *International Journal of Care and Caring*, *1*(2), 281-287. https://doi.org/10.1332/239788217X14951898377524

Health Promotion Board. (2017). *New exercise campaign to encourage active living among seniors, including those with reduced mobility*. Singapore Government. Retrieved from https://www.hpb.gov.sg/article/new- exercise-campaign-to-encourage-active-living-among-seniors-including-those-with-reduced-mobility

Holt-Lunstad, J., Smith, T. B., & Layton, J. B. (2010). Social relationships and mortality risk: A meta-analytic review. *PLoS Medicine*, *7*(7), e1000316. http://dx.doi.org/10.1371/journal.pmed.1000316

Hong Kong Government. (2017). *The Chief Executive's 2017 Policy Address*. Retrieved from https://www.policyaddress.gov.hk/2017/eng/index.html

Hong Kong Housing Authority. (2005). *Universal Design Guidebook for Residential Development in Hong Kong.* Hong Kong Housing Authority. Retrieved from https://www.hkhs.com/en/publications/publications_detail/category/udg/id/155

Hong Kong Housing Society. (2019). *Senior Citizen Residence Scheme*. Hong Kong. Retrieved from https://www.hkhs.com/en/our-business/elderly-housing/senior-citizen#:~:text=Launched%20in%201999%20with%20two,for%20the%20middle%2Dincome%20elderly.

Hospital Authority. (2008). *Universal Accessibility Programme.* Hong Kong. Retrieved from http://www32.ha.org.hk/capitalworksprojects/en/Project/Minor/Universal-Accessibility-Programme.html

Hospital Authority. (2010a). *Chronic Disease Management Project*. Hong Kong. Risk Assessment and Management. Retrieved from https://www.ha.org.hk/haho/ho/hacp/RAMP_GOPC_en.pdf

Hospital Authority. (2010b). *Public-private partnership (PPP) Programmes: Patient empowerment Programme*. Hong Kong. Retrieved from https://www3.ha.org.hk/ppp/pep.aspx?lang=eng

Hospital Authority. (2016). *Strategic Service Framework for Rehabilitation Services*. Hong Kong Hospital Authority. Retrieved from https://www.ha.org.hk/haho/ho/ap/HA-RehabSSF-02.pdf

Hospital Authority. (2017a). *Strategic Plan 2017-2022: Innovating for better care*. Hong Kong Hospital Authority. Retrieved from http://www.ha.org.hk/haho/ho/ap/HA-SP_1.pdf

Hospital Authority. (2017b). *Strategic service framework for palliative care*. Hong Kong Hospital Authority. Retrieved fromhttps://www.ha.org.hk/haho/ho/ap/PCSSF_1.pdf

Hospital Authority. (2019). *HA Guideline on Advance Care Planning*. Hong Kong Hospital Authority. Retrieved from https://www.ha.org.hk/haho/ho/psrm/EACPGuidelines.pdf

Hospital Authority. (2020a). *Accident & Emergency (A&E).* Hong Kong. Retrieved from https://www.ha.org.hk/visitor/ha_visitor_index.asp?Content_ID=10051&Lang=ENG&Dimension=100&Parent_ID=10042

Hospital Authority. (2020b). *Community Psychogeriatric Team.* Hong Kong. Retrieved from https://www.ha.org.hk/visitor/ha_visitor_text_index.asp?Content_ID=10092&Lang=ENG&Dimension=100&Parent_ID=10089#:~:text=Community%20Psychogeriatric%20Teams%20are%20part,rehabilitation%20programmes%20to%20psychogeriatric%20patients

Hospital Authority. (2020c). *Fees and charges.* Hong Kong. Retrieved from https://www.ha.org.hk/visitor/ha_visitor_index.asp?Content_ID=10045&Lang=ENG

Hospital Authority. (2020d). *Introduction of General Out-patient Clinic Services.* Hong Kong. Retrieved from https://www.ha.org.hk/visitor/ha_visitor_index.asp?Content_ID=10052&Lang=ENG&Dimension=100&Parent_ID=10042

Hospital Authority. (2020e). *Miscellaneous: Mobile apps.* Hong Kong. Retrieved from https://www.ha.org.hk/visitor/ha_visitor_index.asp?Content_ID=222264&Lang=ENG&Dimension=1&Ver=HTML#:~:text=The%20Hospital%20Authority%20(HA)%20mobile,to%20manage%20their%20own%20health.

Hospital Authority. (2020f). *PPP Programmes.* Hong Kong. Retrieved from https://www4.ha.org.hk/ppp/en/homepage

Hospital Authority. (2020g). *Specialist Out-patient Clinics.* Hong Kong. Retrieved from https://www.ha.org.hk/visitor/ha_visitor_index.asp?Content_ID=10053&Lang=ENG&Dimension=100&Parent_ID=10042

Hospital Authority. (2020h). *Waiting Time for Stable New Case Booking for Specialist Out-patient Services in Hong Kong.* Hong Kong. Retrieved from https://www.ha.org.hk/visitor/template25.asp?Parent_ID=10053&Content_ID=214177&Dimension=100&Lang=ENG&Ver=HTML&Change_Page=1

Hui, E., Lee, P. S. C., & Woo, J. (2006). Management of urinary incontinence in older women using videoconferencing versus conventional management: A randomised controlled trial. *Journal of Telemedicine and Telecare*, *12*, 343-347. https://doi.org/doi: 10.1258/135763306778682413.

Hui, E. & Woo, J. (2002). Telehealth for older patients: The Hong Kong experience. *Journal of Telemedicine and Telecare*, *8*(3_suppl), 39–41. https://doi.org/10.1258/13576330260440808

Hui, E., Woo, J., Hjelm, M., Zhang, Y. T, & Tsui, H. T. (2001). Telemedicine: A pilot study in nursing home residents. *Gerontology*, *47*(2001), 82-87. https://doi.org/10.1159/000052778

Inouye, S. K., Studenski, S., Tinetti, M. E., & Kuchel, G. A. (2007). Geriatric syndromes: Clinical, research and policy implications of a core geriatric concept. *Journal of the American Geriatrics Society*, *55*(5), 780-791. https://doi.org/10.1111/j.1532-5415.2007.01156.x

James, B. D., Boyle, P. A., Buchman, A. S., & Bennett, D. A. (2011a). Relation of late-life social activity with incident disability among community-dwelling older adults. *The Journals of Gerontology Series A Biological Sciences and Medical Sciences*, *66*(4), 467-73. https://doi.org/10.1093/gerona/glq231

James, B. D., Wilson, R. S., Barnes, L. L., & Bennett, D. A. (2011b). Late-life social activity and cognitive decline in old age. *Journal of the International Neuropsychological Society*, *17*(6), 998-1005. https://doi.org/10.1017/S1355617711000531

Jockey Club Cadenza Hub. (2020). *PowerPoint presentation - Visit to the Jockey Club CADENZA Hub by Professor Sophia Chan*, Secretary for Food and Health, HKSAR Government 3 July 2018.

Jockey Club Institute of Ageing, Sau Po Centre on Ageing, Asia-Pacific Institute of Ageing Studies, & Institute of Active Ageing. (2019). J*ockey Club Age-friendly City Project - Cross-district report of baseline assessment on age-friendliness.* Retrieved from https://www.jcafc.hk/uploads/docs/Cross-district-report-of-baseline-assessment-on-age-friendliness-(18-districts).pdf

Ko, W. M. (2013). *HK healthcare is a dual-track system.* Hong Kong Government. Retrieved from https://www.news.gov.hk/en/record/html/2013/04/20130409_190409.shtml

Kuehn, B. M. (2016). Wearable biosensors Studied for clinical monitoring and treatment. *JAMA: The Journal of the American Medical Association*, *316*(3), 255-257. https://doi.org/10.1001/jama.2016.6240

Lai, J. C. K., Woo, J., Hui, E., & Chan, W. M. (2004). Telerehabilitation – A new model for community based stroke rehabilitation. *Journal of Telemedicine and Telecare*, *10*(4), 199-205. https://doi.org/10.1258/1357633041424340

Legido-Quigley, H., Asgari, N., Teo, Y. Y., Leung, G., Oshitani, H., Fukuda, K., . . . Heymann, D. (2020). Are high-performing health systems resilient against the COVID-19 epidemic? *The Lancet*, *395*(10227), 848-850. https://doi.org/10.1016/S0140-6736(20)30551-1

Legislative Council. (2015). *LCQ18: Telephone appointment service of Hospital Authority.* Hong Kong Government. Retrieved from https://www.info.gov.hk/gia/general/201503/25/P201503250446.htm

Legislative Council. (2019a). *LCQ6: Emergency respite and emergency home care services for the elderly and persons with disabilities.* Hong Kong Government. Retrieved from https://www.info.gov.hk/gia/general/201903/20/P2019032000602.htm?fontSize=1

Legislative Council. (2019b). *LCQ14: Elderly Dental Assistance Programme.* Hong Kong Government. Retrieved from https://www.info.gov.hk/gia/general/201910/30/P2019103000226.htm

Legislative Council. (2019c). *LCQ15: Advance directives in relation to medical treatment.* Hong Kong Government. Retrieved from https://www.info.gov.hk/gia/general/201905/22/P2019052200260.htm?fontSize=1

Legislative Council Panel on Health Services. (2016). *Review of Elderly Health Assessment Pilot Programme.* Legislative Council Panel on Health Services, the Government of the HKSAR. Retrieved from https://www.legco.gov.hk/yr15-16/english/panels/hs/papers/hs20160620cb2-1740-4-e.pdf

Legislative Council Panel on Welfare Services. (2009). *Community support services for ex-mentally ill persons.* Legislative Council Panel on Welfare Services, the Government of the HKSAR. Retrieved from https://www.legco.gov.hk/yr08-09/english/panels/ws/papers/ws0608cb2-1711-3e.pdf

Legislative Council Panel on Welfare Services. (2019). *Support for Carers of Elderly Persons and of Persons with Disabilities.* Legislative Council Panel on Welfare Services, the Government of the HKSAR. Retrieved from https://www.legco.gov.hk/yr18-19/english/panels/ws/papers/ws20190222cb2-810-1-e.pdf

Legislative Council Panel on Welfare Services, Panel of Health Services. (2017). *Support for persons suffering dementia and their family members.* Legislative Council Panel on Welfare Services, Panel of Health Services, the Government of the HKSAR. Retrieved from https://www.legco.gov.hk/yr16-17/english/panels/ltcp/papers/ltcp20170328cb2-1066-1-e.pdf

Legislative Council Secretariat. (2015). *Research brief - Challenges of population ageing*, *Issue No. 1*, *2015–2016*. Research Office, the Government of the HKSAR. Retrieved from https://www.legco.gov.hk/research-publications/english/1516rb01-challenges-of-population-ageing-20151215-e.pdf

Legislative Council Secretariat. (2016). *Dental care services for elderly in Hong Kong.* Research Office, the Government of the HKSAR. Retrieved from https://www.legco.gov.hk/research-publications/english/1617rb02-dental-care-services-for-elderly-in-hong-kong-20161220-e.pdf

Legislative Council Secretariat. (2017). *Care services for elderly persons with dementia.* Research Office, the Government of the HKSAR. Retrieved from https://www.legco.gov.hk/research-publications/english/essentials-1617ise10-care-services-for-elderly-persons-with-dementia.htm#endnote15

Legislative Council Secretariat. (2020). *Policy support to carers in selected place.* Research Office, the Government of the HKSAR. Retrieved from https://www.legco.gov.hk/research-publications/english/1920rt07-policy-support-to-carers-in-selected-places-20200309-e.pdf

Leung, D. D. M. (2019). Influence of functional, psychological, and environmental factors on falls among community-dwelling older adults in Hong Kong. Psychogeriatrics, 19(3), 228-235. https://doi.org/10.1111/psyg.12386

Leung, R. (2018 10 March). Elderly Hongkongers are way more likely to kill themselves than others. Why? *South China Morning Post.* Retrieved from https://www.scmp.com/news/hong-kong/health-environment/article/2136393/elderly-hongkongers-are-way-more-likely-kill

Lin, F, Luk, J, Chan, T., Mok, W, & Chan, F. (2015). Effectiveness of a discharge planning and community support programme in preventing readmission of high-risk older patients. *Hong Kong Medical Journal*, *21*(3), 208-216. https://doi.org/10.12809/hkmj144304

Lindberg, B., Nilsson, C., Zotterman, D., Söderberg, S., & Skär, L. (2013). Using Information and Communication Technology in Home Care for Communication between Patients, Family Members, and Healthcare Professionals: A Systematic Review. *International journal of telemedicine and applications*, 2013, 461829. https://doi.org/10.1155/2013/461829

Litwin, H. (2011). The association between social network relationships and depressive symptoms among older Americans: what matters most? *International Psychogeriatrics, 23*(6), 930-940. https://doi.org/10.1017/S1041610211000251

Logistics and Supply Chain MultiTech R&D Centre. (2020). I*nfrared thermal sensing safety alert system for elderly*. Hong Kong. Retrieved from https://www.lscm.hk/eng/channel.php?channel=case-2-5

Lou, V. W., Chui, E. W., Leung, A. Y., Tang, K. L., Chi, I., Leung Wong, E. K., & Kwan, C. W. (2011). Factors affecting long-term care use in Hong Kong. *Hong Kong Medical Journal*, *17*(3 Suppl 3), 8–12. Retrieved from https://www.hkmj.org/abstracts/v17n3%20Suppl%203/8.htm

Lordos, E. F., Herrmann, F. R., Robine, J. M., Balahoczky, M., Giannelli, S. V., Gold, G., & Michel, J. P. (2008). Comparative value of medical diagnosis versus physical functioning in predicting the 6-year survival of 1951 hospitalized old patients. *Rejuvenation Research*, *11*(4), 829-836. https://doi.org/10.1089/rej.2008.0721

Luk, J. K. (2018). End-of-life services for older people in residential care homes in Hong Kong. *Hong Kong Medical Journal*, *24*(1), 63. https://doi.org/10.12809/hkmj166807.

Lum, T. Y. S., Lou, V. W. Q., Chen, Y., Wong, G. H. Y., Luo, H., & Tong, T. L. W. (2016). Neighborhood support and aging-in-place preference among low-income elderly Chinese city-dwellers. *The Journals of Gerontology: Series B*, *71*(1), 98-105. https://doi.org/10.1093/geronb/gbu154

Maas, J., Verheij, R. A., Groenewegen, P. P., de Vries, S., & Spreeuwenberg, P. (2006). Green space, urbanity, and health: How strong is the relation? *Journal of Epidemiology Community Health.* https://doi.org/10.1136/jech.2005.043125

Marengoni, A., Angleman, S., Melis, R., Mangialasche, F., Karp, A., Garmen, A., . . . Fratiglioni, L. (2011). Aging with multimorbidity: A systematic review of the literature. *Ageing research reviews*, *10*(4), 430-439. https://doi.org/10.1016/j.arr.2011.03.003

McNabney, M., Willging, P., Fried, L., & Durso, S. (2009). The “Continuum of Care” for older adults: Design and evaluation of an educational series. *Journal of the American Geriatrics Society*, *57*(6), 1088-1095. https://doi.org/10.1111/j.1532-5415.2009.02275.x

MedExo Robotics. (2020). *Our product & solution*. Hong Kong. Retrieved from https://www.medexorobotics.com/menu

Mervin, M. C., Moyle, W., Jones, C., Murfield, J., Draper, B., Beattie, E., & Thalib, L. (2018). The cost-effectiveness of using PARO, a therapeutic robotic seal, to reduce agitation and medication use in dementia: Findings from a cluster–randomized controlled trial. *Journal of the American Medical Directors Association, 19*(7), 619-622.e1. https://doi.org/10.1016/j.jamda.2017.10.008

Millán-Calenti, J. & Maseda, A. (2011). Elderly people, disability, dependence and new technologies. In J. Pereira (Ed.), *Handbook of research on personal autonomy technologies and disability informatics* (pp. 36-45). IGI Global. https://doi.org/10.4018/978-1-60566-206-0.ch003

Mindvivid. (2020). *Brainastic*. Hong Kong. Retrieved from https://www.mindvivid.com/

Ministry of Health. (2020a). *Active Ageing Programmes.* Health Hub, Singapore Government. Retrieved from https://www.healthhub.sg/programmes/160/AAP

Ministry of Health. (2020b). *Seniors’ Mobility and Enabling Fund.* Singapore Government. Retrieved from https://www.healthhub.sg/a-z/costs-and-financing/26/seniors-mobility-and-enabling-fund-smf

Ministry of Community Development and Sports. (2001). *Eldercare Master Plan (FY 2001 to FY 2005)*. Singapore Government. Retrieved from https://eresources.nlb.gov.sg/printheritage/detail/166f6614-9ed2-4278-91ea-4be86caa64ec.aspx

National Health Service. (2017). *Next steps on the NHS five year forward view*. Singapore Government. Retrieved from https://www.england.nhs.uk/wp-content/uploads/2017/03/NEXT-STEPS-ON-THE-NHS-FIVE-YEAR-FORWARD-VIEW.pdf

Nakanishi, M. & Nakashima, T. (2014). Features of the Japanese national dementia strategy in comparison with international dementia policies: How should a national dementia policy interact with the public health- and social-care systems? *Alzheimer's & Dementia, 10*(4), 468-476.e3. https://doi.org/10.1016/j.jalz.2013.06.005

Organization for Economic Co-operation and Development. (2008). *Public-Private Partnerships: In pursuit of risk sharing and value for money*, OECD Publishing, Paris. https://doi.org/10.1787/9789264046733-en.

Organization for Economic Co-operation and Development. (2011). *A System of Health Accounts: 2011 Edition*, OECD Publishing, Paris, https://doi.org/10.1787/9789264116016-en.

Our Hong Kong Foundation. (2018). *Fit for purpose: A health system for the 21st century.* Research report. Our Hong Kong Foundation. Retrieved from https://www.ourhkfoundation.org.hk/sites/default/files/media/pdf/ohkf_research_report_digital_1201.pdf

Planning Department. (2016). *An inclusive and supportive city for all ages*. Planning Department, the Government of HKSAR. Retrieved from https://www.hk2030plus.hk/document/An%20Inclusive%20and%20Supportive%20City%20for%20All%20Ages_Eng.pdf

Poon, P., Hui, E., Dai, D., Kwok, T., & Woo, J. (2005). Cognitive intervention for community-dwelling older persons with memory problems: Telemedicine versus face-to-face treatment. *International Journal of Geriatric Psychiatry, 20*(3), 285-286. https://doi.org/10.1002/gps.1282

Preiser, W. (2001). *Universal Design Handbook*, McGraw-Hill, New York.

Pruitt, S., Annandale, S., Epping-Jordan, J., Diaz, J. M. F., Khan, M., Kisa, A., & Wagner, E. (2002). Chapter 1 Chronic conditions: The health care challenge of the 21st Century. In World Health Organization, I*nnovative care for chronic conditions: Building blocks for action*. (pp. 11–26). Retrieved from http://www.who.int/chp/knowledge/publications/iccc_ch1.pdf

Rehab-robotics. (2020). *Hand of hope: For hand rehabilitation.* Retrieved from https://pdf.medicalexpo.com/pdf/rehab-robotics-company/hand-hope-hand-rehabilitation/77946-153280.html

Robert, P. H., Konig, A., Andrieu, S., Bremond, F., Chemin, I., Chung, P. C., Dartigues, J. F., Dubois, B., Feutren, G., Guillemaud, R., Kenisberg, P. A., Nave, S., Vellas, B., Verhey, F., Yesavage, J., & Mallea, P. (2013). Recommendations for ICT use in Alzheimer's disease assessment: Monaco CTAD expert meeting. *The Journal of Nutrition, Health & Aging, 17*(8), 653–660. https://doi.org/10.1007/s12603-013-0046-3

Sansone, R. A., & Sansone, L. A. (2012). Doctor shopping: A phenomenon of many themes. *Innovations in Clinical Neuroscience*, *9*(11–12), 42–46. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/23346518

Santos-Eggimann, B., Cuénoud, P., Spagnoli, J., & Junod, J. (2009). Prevalence of frailty in middle-aged and older community-dwelling Europeans living in 10 countries. *The Journals of Gerontology: Series A*, *64*(6), 675-681. https://doi.org/10.1093/gerona/glp012.

Sau Po Centre on Ageing. (2011). *Consultancy study on community care services for the elderly. Final report.* Department of Social Work & Social Administration, The University of Hong Kong. Retrieved from https://www.elderlycommission.gov.hk/en/download/library/Community%20Care%20Services%20Report%202011_eng.pdf

Singapore Silver Pages. (2020). *Welcome to the Singapore silver pages.* Singapore Government. Retrieved from https:// www.silverpages.sg/AboutUs.

Sit & Shower. (2020). *Automatic shower. Easier for bather & caregiver Alike.* Retrieved from http://www.sitnshower.com/

Smith, R. (2000). A good death: An important aim for health services and for us all. *British Medical Journal, 320*(7228), 129-130. https://doi.org/10.1136/bmj.320.7228.129.

Social Welfare Department. (2020a). *Community support services for the elderly.* Hong Kong Government. Retrieved from https://www.swd.gov.hk/en/index/site_pubsvc/page_elderly/sub_csselderly/id_introduction/

Social Welfare Department. (2020b). *Dementia Friendly Campaign.* Hong Kong Government. Retrieved from https://www.swd.gov.hk/dementiacampaign/en/index.html

Social Welfare Department. (2020c). *Innovation and Technology Fund for Application in Elderly and Rehabilitation Care.* Hong Kong Government. Retrieved from https://www.swd.gov.hk/en/index/site_pubsvc/page_supportser/sub_itfund/

Social Welfare Department. (2020d). *Pilot Scheme on Community Care Service Voucher for the Elderly (CCSV).* Hong Kong Government. Retrieved from https://www.swd.gov.hk/en/index/site_pubsvc/page_elderly/sub_csselderly/id_psccsv/

Social Welfare Department. (2020e). *Pilot Scheme on Multi-disciplinary Outreaching Support Teams for the Elderly.* Hong Kong Government. Retrieved from https://www.swd.gov.hk/en/index/site_pubsvc/page_elderly/sub_residentia/id_moste/

Social Welfare Department. (2020f). *Pilot Scheme on Support for Elderly Persons Discharged from Public Hospitals after Treatment.* Hong Kong Government. Retrieved from https://www.swd.gov.hk/en/index/site_pubsvc/page_supportser/sub_tcs/

Social Welfare Department. (2020g). *Pilot Scheme on Residential Care Service Voucher for the Elderly.* Hong Kong Government. Retrieved from https://www.swd.gov.hk/en/index/site_pubsvc/page_elderly/sub_residentia/id_psrcsv/#:~:text=The%20Pilot%20Scheme%20on%20Residential%20Care%20Service%20Voucher%20for%20the%20Elderly&text=The%20Social%20Welfare%20Department%20(SWD,of%20three%20years%20by%20batches.

Social Welfare Department. (2020h). *Residential Care Services for the Elderly*. Hong Kong Government. Retrieved from https://www.swd.gov.hk/en/index/site_pubsvc/page_elderly/sub_residentia/

Social Welfare Department. (2020i). *Standardised Care Need Assessment Mechanism for Elderly Services.* Hong Kong Government. Retrieved from https://www.swd.gov.hk/en/index/site_pubsvc/page_elderly/sub_standardis/

Social Welfare Department. (2020j).*Waiting list for subsidised residential care services for the elderly*. Hong Kong Government. Retrieved from https://www.swd.gov.hk/storage/asset/section/632/en/LTC_statistics_HP-Eng(202009).pdf

Society for the Promotion of Hospice Care. (2020). *Palliative care service.* Jockey Club Home for Hospice. Retrieved from https://www.hospicecare.org.hk/service-detail.php?id=22&lang=en

South China Morning Post Editorial. (2020, 13 April). *Why telemedicine is worth embracing*. South China Morning Post. Retrieved from www.scmp.com/comment/opinion/article/3079673/why-telemedicine-worth-embracing

Starfield, B., Shi, L., Macinko, J. (2005). Contribution of primary care to health systems and health. *Milbank Q*, *83*(3), 457–502. https://doi.org/10.1111/j.1468-0009.2005.00409.x

Sullivan, T. (2018). *The expected impact of telemedicine in elderly.* The Policy and Medicine. Retrieved from https://www.policymed.com/2018/08/the-expected-impact-of-telemedicine-on-the-elderly.html

SWD elderly information website. (2020). *Introduction of long term care services.* Retrieved from https://elderlyinfo.swd.gov.hk/en/ltc_introduction.html

Takechi, H., Yabuki, T., Takahashi, M., Osada, H., & Kato, S. (2019). Dementia cafés as a community resource for persons with early-stage cognitive disorders: A nationwide survey in Japan. *Journal of the American Medical Directors Association, 20*(12), 1515-1520. https://doi.org/10.1016/j.jamda.2019.04.017

The Economist Intelligence Unit. (2015). *The 2015 Quality of Death Index: Ranking palliative care across the world.* The Economist Intelligence Unit. Retrieved from https://www.eiuperspectives.economist.com/sites/default/files/2015 EIU Quality of Death Index Oct 29 FINAL. Pdf

The Hong Kong Medical Association. (2015). *Results of surveys on Elderly Health Care Voucher Scheme.* The Hong Kong Medical Association. Retrieved from https://www.healthyhkec.org/SCE10/presentations/seminar1/Dr.%20Douglas%20CHAN_Use%20of%20HealthCare%20Voucher.pdf

The Hong Kong Medical Association. (2018). *Report of doctor's fees survey 2018. Hong Kong.* The Hong Kong Medical Association. Retrieved from https://www.thkma.org/pressrelease/details/20190125_a1.pdf

The Hong Kong Society of Rehabilitation. (2020). *About accessible transport and travel services.* Hong Kong. Retrieved from https://www.rehabsociety.org.hk/our-services/transport_travel/

The Jockey Club School of Public Health and Primary Care. (2017). *3rd interim report: Quality of healthcare for the aging – health system and service models to better cater for an aging population*. Hong Kong.

Tsang, E. (2016, 26 March). *Inside Hong Kong's public hospital crisis: Temporary beds, angry patients, nurses and other doctors stretched to breaking points.* South China Morning Post. Retrieved from https://www.scmp.com/news/hong-kong/health-environment/article/1931049/inside-hong-kongs-public-hospital-crisis-temporary

Vasunilashorn, S., Steinman B., Liebig, P., & Pynoos, J. (2012). Aging in place: Evolution of a research topic whose time has come. *Journal of Aging Research*, *2012*, 1-6. https://doi.org/10.1155/2012/120952

Wang, D., Lau, K., Yu, R., Wong, S., Kwok, T., & Woo, J. (2017). Neighboring green space and transitions between frailty states among Chinese elderly in Hong Kong. *Innovation in Aging*, *1*(suppl_1), 433-433. https://doi.org/10.1093/geroni/igx004.1553

Wiles, J., Leibing, A., Guberman, N., Reeve, J., & Allen, R. (2012). The meaning of "aging in place" to older people. *The Gerontologist*, *52*, 357–366. http://doi.org/10.1093/geront/gnr098

Wong W.S. (2018). *Technology in diabetic patients care.* Department of Medicine, North District Hospital. Retrieved from https://www.healthyhkec.org/SCE13/presentations/seminar-2-talk-4.pdf

Wong, Y. K, Hui, E., & Woo, J. (2005). A community-based exercise programme for older persons with knee pain using telemedicine. *Journal of Telemedicine and Telecare*, *11*, 310-315. http://doi.org/10.1258/1357633054893346

Woo, J. (2017). Designing fit for purpose health and social services for ageing populations. *International Journal of Environmental Research and Public Health*, *14*(5), 457. https://doi.org/10.3390/ijerph14050457

Woo, J., Chau, P. H., & Mak, B. (2013). Chapter 9 - Elder-friendly Service Delivery Models. In J. Woo (Ed.), *Aging in Hong Kong: A comparative perspective*. Boston, MA: Springer US.

Woo, J., Mak, B., & Yeung, F. (2013). Age-friendly primary health care: An assessment of current service provision for older adults in Hong Kong. *Health Services Insights*, *6*(2013), 69-77. http://doi.org/10.4137/HSI.S12434

Woo, J., Yu, R., Wong, M., Yeung, F., Wong, M., & Lum, C. (2015). Frailty screening in the community using the FRAIL scale. *Journal of the American Geriatrics Society*, *16*, 412–419. http://doi.org/10.1016/j.jamda.2015.01.087

World Health Organization. (1998). *Health promotion glossary.* Geneva World Health Organization. Retrieved from http://www.who.int/healthpromotion/about/HPG/en/

World Health Organization. (2007). *Global age-friendly cities: A guide.* Geneva World Health Organization. Retrieved from www.who.int/ageing/publications/Global_age_friendly_cities_Guide_English.pdf

World Health Organization. (2015a). *WHO global strategy on people-centred and integrated health services: Interim report.* Service Delivery and Safety. Geneva World Health Organization. Retrieved from http://apps.who.int/iris/bitstream/handle/10665/155002/WHO_HIS_SDS_2015.6_eng.pdf?sequence=1&isAllowed=y%0Ahttp://apps.who.int/iris/bitstream/10665/155002/1/WHO_HIS_SDS_2015.6_eng.pdf%0Ahttp://www.who.in/servicedeliverysafety/areas/people-centred-care/gl

World Health Organization. (2015b). *World report on ageing and health.* Geneva World Health Organization. Retrieved from http://apps.who.int/iris/bitstream/handle/10665/186463/9789240694811_eng.pdf;jsessionid=8487430EAB057D2F499A21E63F0B3 42F?sequence=1

World Health Organization. (2017a). *Global strategy and action plan on ageing and health.* Geneva World Health Organization. Retrieved from https://www.who.int/ageing/WHO-GSAP-2017.pdf?ua=1

World Health Organization. (2017b). *Integrated care for older people: Guidelines on community-level interventions to manage declines in intrinsic capacity.* Geneva World Health Organization. Retrieved from https://www.who.int/ageing/publications/guidelines-icope/en/

World Health Organization. (2017c). *Mental health of older adults.* Geneva World Health Organization. Retrieved from http://www.who.int/news-room/fact- sheets/detail/mental-health-of-older-adults

World Health Organization. (2017d). *Operationalizing the concept of intrinsic capacity in clinical settings.* Geneva World Health Organization. Retrieved from https://www.who.int/ageing/health-systems/clinical-consortium/CCHA2017-backgroundpaper-1.pdf

World Health Organization. (2019a). *Integrated care for older people (ICOPE) guidance for person-centred assessment and pathways in primary care.* Geneva World Health Organization. Retrieved from https://www.who.int/ageing/publications/icope-handbook/en/

World Health Organization. (2019b). *Integrated care for older people (ICOPE) implementation framework: Guidance for systems and services.* Geneva World Health Organization. Retrieved from https://www.who.int/ageing/publications/icope-framework/en/

Yeoh, E. K. (2004). *Steps aim to prevent elderly suicide*. News.gov.hk. Retrieved from https://www.news.gov.hk/isd/ebulletin/en/category/ontherecord/040324/html/040324en11001.htm

Yeoh, E. K. (2017). *Age-friendly health services.* Presented in the Jockey Club Age-friendly City Project public forum - Age-friendly community support and health services. Retrieved from https://www.jcafc.hk/uploads/images/source/ppt_prof_yeoh-1.pdf

Yim, Y. T. (2008). *An analysis of emergency department service utilization by elderly patients in Hong Kong.* The Chinese University of Hong Kong.

Yu, R., Cheung, O., Lau, K., & Woo, J. (2017). Associations between perceived neighborhood walkability and walking time, wellbeing, and loneliness in community-dwelling older Chinese people in Hong Kong. *International Journal of Environmental Research and Public Health*, *14*(10), 1199. https://doi.org/10.3390/ijerph14101199

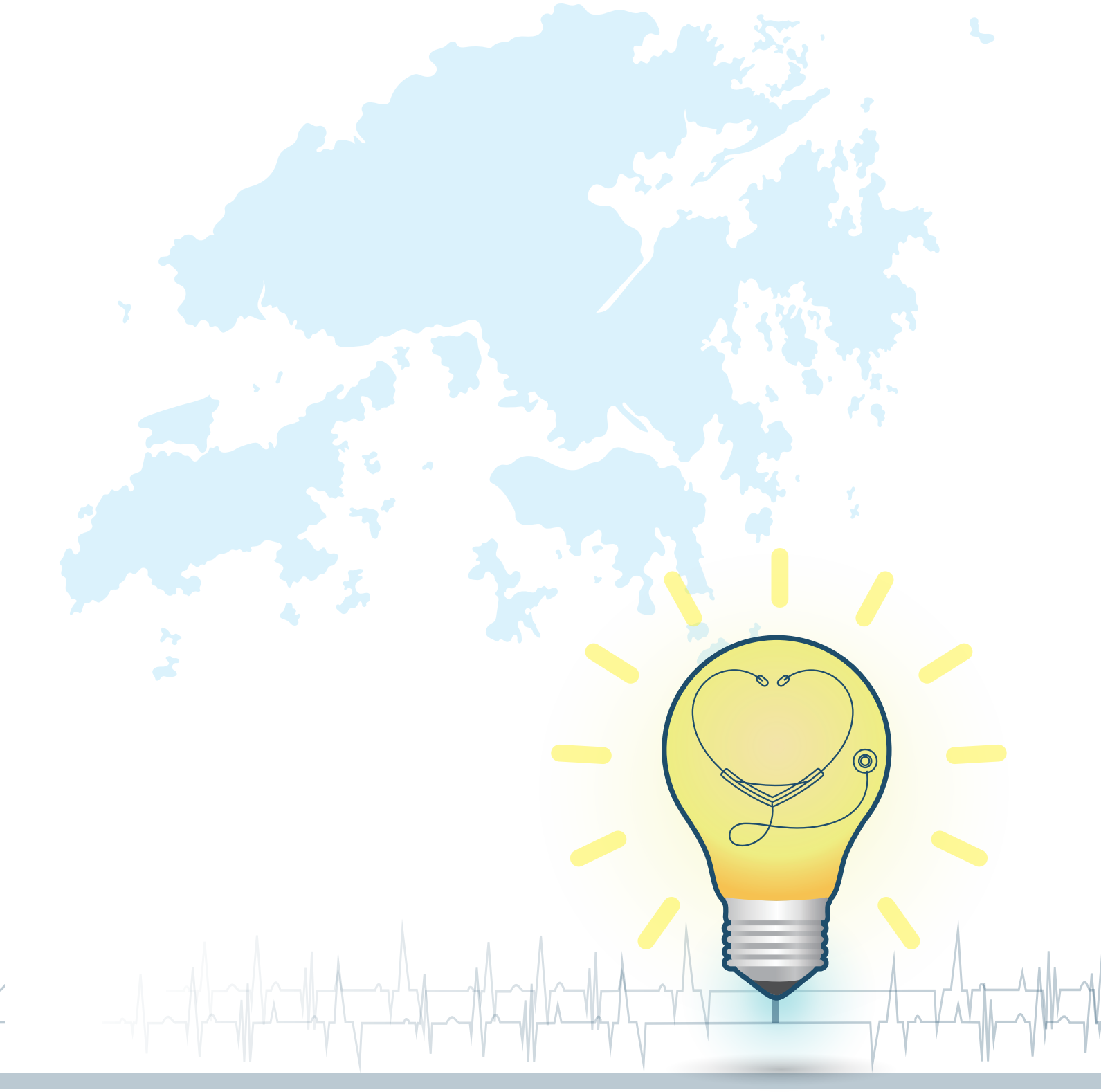
Yu, R., Hui, E., Lee, J., Poon, D., Ng, A., Sit, K., Ip, K., Yeung, F., Wong, M., Shibata, T., & Woo, J. (2015). Use of a therapeutic, Socially Assistive Pet Robot (PARO) in improving mood and stimulating social interaction and communication for people with dementia: Study protocol for a randomized controlled trial. *JMIR Research Protocols*, *4*(2), e45. https://doi.org/10.2196/resprot.4189

Yu, R., Wang, D., Leung, J., Lau, K., Kwok, T., & Woo, J. (2018). Is neighborhood green space associated with less frailty? Evidence from the Mr. and Ms. Os (Hong Kong) study. *Journal of the American Medical Directors Association*, *19*(6), 528–534. https://doi.org/10.1016/j.jamda.2017.12.015

Yu, R., Wong, M., Chang, B., Lai, X., Lum, C.M., Auyeung, T.W., Lee, J., Tsoi, K., Lee, R., & Woo, J. (2016). Trends in activities of daily living disability in a large sample of community-dwelling Chinese older adults in Hong Kong: An age-period-cohort analysis. *BMJ*, *6*, e013259.

Yuen, B., Močnik, S., Yu, F., & Yap, W. (2020). *Ageing-friendly neighbourhoods in Singapore, Asia-Pacific, Europe and North America.* Cham: Springer International Publishing AG.

Zhou, J., & Salvendy, G. (2018). *Human aspects of it for the aged population. Applications in health, assistance, and entertainment*. Cham: Springer International Publishing AG.



賽馬會齡活城市
Jockey Club Age-friendly City

Thematic Report Series on the Concept of

an Age-friendly City in Hong Kong

Community Support and Health Services

Initiated and funded by:

The Hong Kong Jockey Club Charities Trust

Partner institution:

香港中文大學
The Chinese University of Hong Kong

香港中文大學
賽馬會老年學研究所
CUHK Jockey Club Institute of Ageing