



賽馬會齡活城市  
Jockey Club Age-friendly City



# AgeWatch Index for Hong Kong

## Topical Report on Enabling Environment



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



Initiated and funded by

香港賽馬會慈善信託基金  
The Hong Kong Jockey Club Charities Trust  
同心 同步 同進 RIDING HIGH TOGETHER

# AgeWatch Index for Hong Kong: Topical Report on Enabling Environment

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: <http://www.jcafc.hk>

## Project Team:

Prof. Jean Woo, Director, CUHK Jockey Club Institute of Ageing  
Dr. Ruby Yu, Research Fellow, CUHK Jockey Club Institute of Ageing  
Mr. Anson Chau, Research Assistant, CUHK Jockey Club Institute of Ageing  
CUHK Jockey Club Institute of Ageing

ISBN: 978-988-13332-5-4

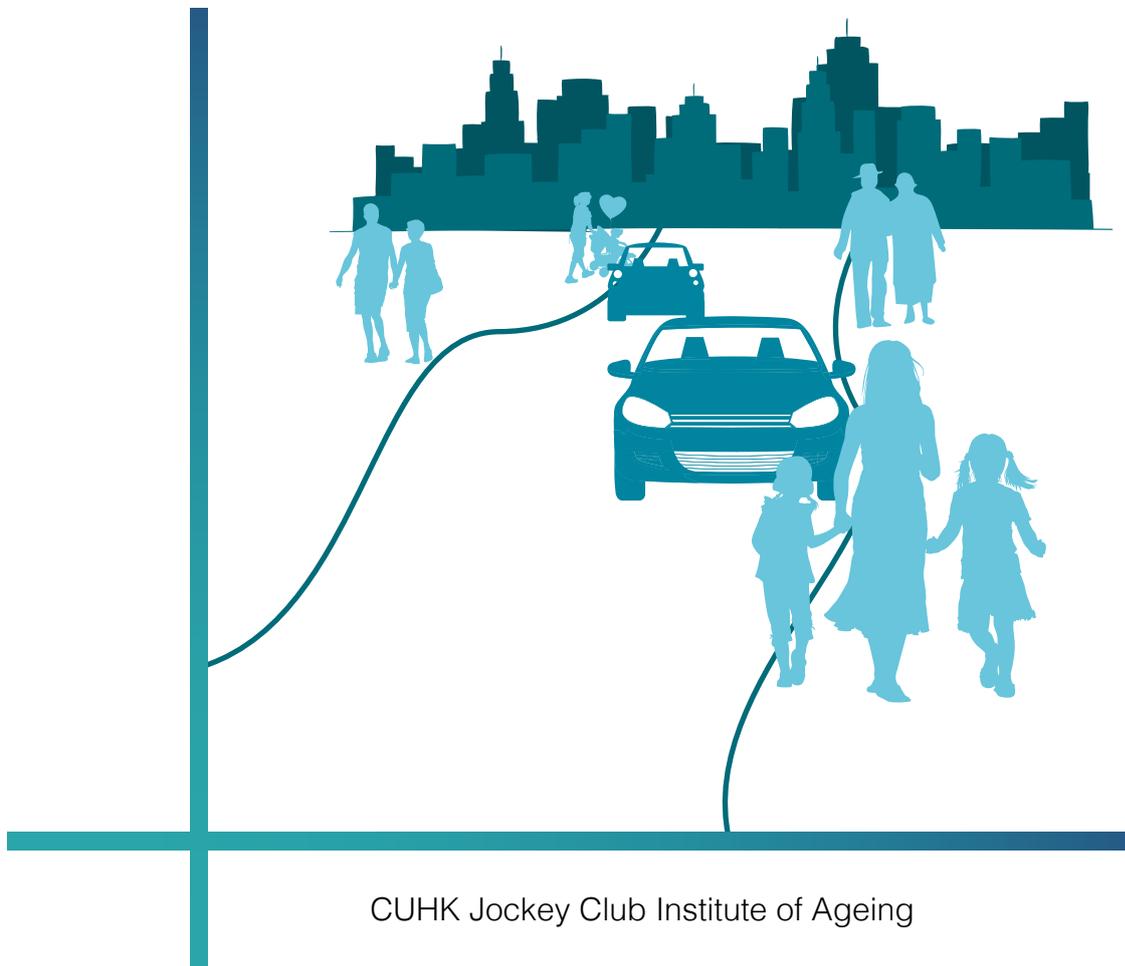
Published in 2017

The copyright of this report belongs to the original authors and The Hong Kong Jockey Club. Interested parties are welcome to reproduce any part of this publication for non-commercial use. Acknowledgement of this publication is required.



賽馬會齡活城市  
Jockey Club Age-friendly City

# AgeWatch Index for Hong Kong: Topical Report on Enabling Environment



CUHK Jockey Club Institute of Ageing



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

Initiated and funded by



香港賽馬會慈善信託基金  
The Hong Kong Jockey Club Charities Trust

同心同步同進 RIDING HIGH TOGETHER

## **The Chinese University of Hong Kong Jockey Club Institute of Ageing**

In support of the Chinese University of Hong Kong's (CUHK) aspiration to overcome the challenges brought by the ageing population to society, CUHK has established The CUHK Jockey Club Institute of Ageing in 2014 with the generous support from The Hong Kong Jockey Club Charities Trust.

Since its establishment, the Institute has embarked on collaborative researches in gerontechnology, healthy ageing and community intervention programmes for health promotion and prevention of frailty. Efforts to promote messages of active ageing have been made through a dedicated series of TV programmes; announcing the results of the first multi-dimensional AgeWatch Index of Hong Kong in 2015; and supporting the implementation of the Jockey Club Age-friendly City Project (JCAFC Project) initiated and funded by The Hong Kong Jockey Club Charities Trust.

Building on the University's long-standing efforts of ageing researches and partnership with charitable organizations, the Institute will continue to build its capacity and serve as a platform of ageing-related researches, 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.



Preface by The Hong Kong Jockey Club .....	P.4
Preface by the CUHK Jockey Club Institute of Ageing .....	P.5
Executive Summary .....	P.6
Chapter 1 The Importance of an Enabling Environment in Ageing Hong Kong .....	P.7
Chapter 2 Conceptualizations of an Enabling Environment .....	P.13
Chapter 3 Worldwide Examples of Initiatives of Creating an Enabling Environment .....	P.25
Chapter 4 Hong Kong as an Age-friendly City: An Overview .....	P.37
Chapter 5 Way Forward: The Future of Hong Kong as an Age-friendly City .....	P.51
References .....	P.54



## Preface — The Hong Kong Jockey Club

The challenge of building Hong Kong into an age-friendly city requires the collective effort of many different stakeholders in the community. Since 2015, The Hong Kong Jockey Club Charities Trust has partnered four gerontology research institutes of local universities to implement the Jockey Club Age-friendly City project. A key component of this project is the AgeWatch Index for Hong Kong, which indicates how the city fares against other countries or territories in terms of the social and economic well-being of older people. In connection with this, a series of topical reports featuring the four domains of the Index, namely income security, health status, capability and enabling environment, will be published periodically.

This first topical report features the “enabling environment”, which is undoubtedly an important factor affecting the well-being of older people. It examines the concept and importance of an enabling environment for older people through various environmental and personal factors. Examples of worldwide initiatives in this area are also highlighted to create a comprehensive picture. Together with the project’s baseline assessment findings for different districts of Hong Kong and the data provided in the Index, this report offers a valuable overview of Hong Kong’s age-friendliness and sheds light on potential areas for improvement. We hope it will facilitate project planning, so as to make Hong Kong increasingly age-friendly over the coming years.

On behalf of the Trust, I should like to express my heartiest thanks to the CUHK Jockey Club Institute of Ageing for undertaking the work of compiling the Index and publishing this series of topical reports. I hope they will enhance public understanding of the concept of an age-friendly city and assist all parties involved in building an age-friendly Hong Kong. By continuously improving the enabling environment for older people, we can help them achieve active and positive ageing in the community, which is something to which we all aspire.

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



# Preface — CUHK Jockey Club Institute of Ageing

As one of the four domains in the Global AgeWatch Index, the enabling environment is an indispensable determinant of well-being of older people. Many features of the environment enable older people to achieve active and healthy ageing. These features include not only physical infrastructure like the outdoor and green space, but also the social elements like establishing meaningful social connections with older people and cultivating a sense of respect for them. A comprehensive investigation of the enabling environment for older people increases our understanding of the impact of the environment on the well-being of older people. It also helps multiple stakeholders design our city to be more age-friendly.

While the global population is ageing, providing a comfortable and engaging environment for older people is a common goal for all countries and territories. The World Health Organization (WHO) has created strong momentum around the globe in promoting the concept of age-friendly city. In response to the appeal by the WHO, age-friendly initiatives are being created in various levels: countries, cities and communities. These innovative initiatives attend to older people's needs of their urban life and bring impacts to improve well-being of older people. They are valuable references that we can borrow from when building our age-friendly city.

In Hong Kong, there is an emerging need to build an age-friendly city. Supported by the Hong Kong Jockey Club Charities Trust, our Institute has joined three other ageing institutes in Hong Kong to implement an age-friendly city project, combining academic researches with district programmes to enhance the overall age-friendliness of Hong Kong. The project has been extended to all districts in Hong Kong this year. With concerted effort by the government, district councils, NGOs and, of course, older people, Hong Kong will become a more age-friendly city for our older people to age well.

Prof. Jean Woo, MD, FRCP, FRACP  
Director, CUHK Jockey Club Institute of Ageing  
The Chinese University of Hong Kong



## Executive Summary

This is the first report of the topical report series of the Global AgeWatch Index for Hong Kong. Each report in this series investigates significant worldwide trends and initiatives of one domain (i.e. income security, health status, capability and enabling environment) in the Global AgeWatch Index, in particular to the local context of Hong Kong. This series provides a broader context of the four domains to the annual Report of AgeWatch Index for Hong Kong.

This report provides a detailed discussion of the domain of enabling environment in Hong Kong. It illustrates the concept of an age-friendly environment and highlights the importance of building up an age-friendly city. It also presents the examples of age-friendly initiatives around the world and in Hong Kong. The report aims to arouse readers' awareness of building up an age-friendly Hong Kong.

## 行政摘要

本報告為「香港長者生活關注指數」專題報告系列的第一本報告。每本專題報告以香港為例，探討有關「全球長者生活關注指數」四個領域（收入保障、健康狀況、能力和有利環境）之一的重要國際趨勢及行動。此系列增補「香港長者生活關注指數報告」，有幫讀者了解香港長者不同領域上的福祉。

本報告詳盡討論香港在「有利環境」領域上的表現，闡述了長者及年齡友善城市的概念及強調建立長者及年齡友善城市的重要性，並介紹了香港以至全球的長者及年齡友善計劃。本報告旨在提高大眾對建立香港成為長者及年齡友善城市的關注。



# Chapter 1

# Chapter 1

## The Importance of an Enabling Environment in Ageing Hong Kong

Hong Kong is facing an ageing population. In 2064, the number of elderly (aged 65 and above) will be 2.58 million, increasing from 1.07 million in 2014. In contrast, the number of younger people (aged 15 to 64) will drop from 5.04 million in 2014 to 3.92 million in 2064 (Census and Statistics Department, HKSAR Government, 2015). Overall, the proportion of the elderly (excluding foreign helpers) in the total population will increase drastically from 15% in 2014 to 36% in 2064 (Census and Statistics Department, HKSAR Government, 2015), meaning that one among three Hong Kong people will be an elder. With an increasing ageing population in the foreseeable future, providing a supportive age-friendly environment for current and future generations of older people in Hong Kong is of utmost importance to maintain their quality of life and well-being.

### 1.1 Importance of a supportive environment for older people

Apart from personal factors, the surrounding living environment is one of the determinants of well-being or quality of life in older people (Figure 1.1). The environmental factors, for example, air pollution, living conditions, open spaces, and social connection in neighborhood, are influential to the process of ageing well. Therefore, a more in-depth understanding of the impacts of different aspects in an enabling or age-friendly environment could lead to actual improvement in older people's well-being or quality of life.

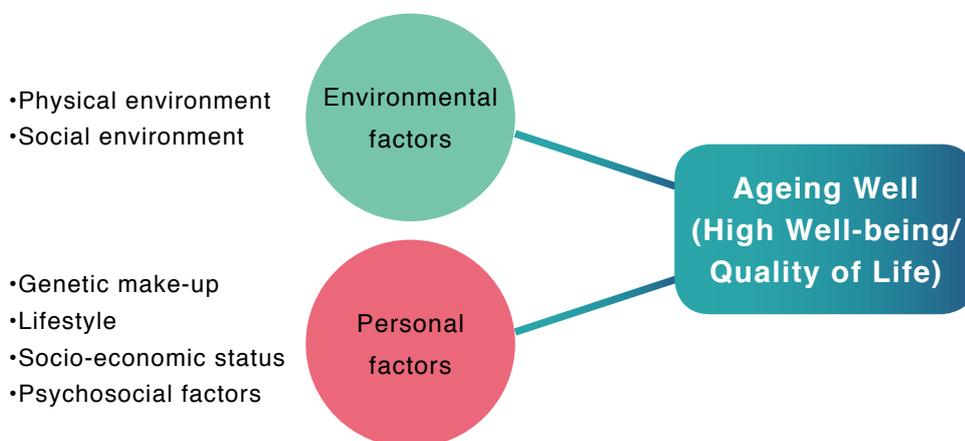


Figure 1.1 Contribution of living environment to aging well

The discussion of an age-friendly environment has been fueled by the advancement of the field of environmental gerontology during the 1960s. The multidisciplinary field of environmental gerontology addresses “the description, explanation, and modification or optimization of the relation between the older people person and his or her environment” (Wahl & Weisman, 2003, p.616). Environmental gerontologists have long examined the impact of neighborhood environment on older people's well-being (e.g. Krause, 2004; Wahl & Lang, 2003). Emerging evidence from environmental gerontology suggests that the neighborhood environment is closely related to the well-being of the residing older people, especially to their



independence, mobility and quality of life (Phillipson, 2007; Scharf, Phillipson, & Smith, 2007). A growth in literature in this area warrants attention on impacts of the living environment on the overall well-being of the older people.

The notion of age-friendly community is based on the concept “ageing in place”, which attends to older people’s wish to stay in a familiar environment when they age (Rowles, 1994). “Ageing in place” seems to be a common among older people (Chapman & Howe, 2001; Van Wezemael & Gilroy, 2007). A national survey by the American Association of Retired Persons (AARP) in America found that 73% of the Americans aged 45 and above strongly agreed that they wanted to stay in their current residence as long as possible; while 67% strongly agreed that they wanted to remain in their local community as long as possible (Keenan, 2010). In order to provide a safe and comfortable place for older people to age in place, the establishment and maintenance of an age-friendly community is the top priority, especially in rapidly ageing countries/regions. A supportive environment favoring ageing in place is established via comprehensive planning and provision of various supporting services in the community, as well as the removal of barriers that isolate older people and limit their activities (Pynoos & Nishita, 2007). It is an accessible dwelling where older people’s physical activity level, social networks and overall well-being are maintained (e.g. Booth, Owen, Bauman, Clavisi, & Leslie 2000; Tomaszewski, 2013). Facilitating ageing in place by enhancing age-friendliness is also a widely adopted policy goal over the world (Heumann & Bold, 1993; Rowles, 1994).

An age-friendly community is a place where “older people are actively involved, valued, and supported with infrastructure and services that effectively accommodate their needs” (Alley, Liebig, Pynoos, & Choi, 2007, p.4). The concept of age-friendly community originates from the ecological model of ageing, suggesting that well-being in later life is a result of the interaction between the competence of the older people and the demands of the living environment (Smedley & Syme, 2000). When people grow older, they may become more vulnerable so that they may not easily cope with the demands of the neighborhood environment (Lawton, 1986). Besides, they usually stay longer time in their community or neighborhood, so that the features of their living environment pose large impact on their well-being (Glass & Balfour, 2003). Therefore, an age-friendly environment should facilitate the person-environment fit by moderating the demands of the living environment so the environment can fit into the competence of the older people (Lawton & Nahemow, 1973).

In the recent decade, there has been growing interests among governments and non-governmental organizations over the world to optimize the living environment of the older people. In the face of global ageing, the World Health Organization (WHO) (2007b) mentioned that “making cities more age-friendly is a necessary and logical response to promote the well-being and contributions older urban residents and keep cities thriving” (p.4). Supporting older

people to age actively in their own community, WHO launched the Global Age-Friendly Cities project which involved older people living in 33 cities from 22 countries worldwide expressing their opinions about age-friendliness of their cities. In 2007, *The Global Age-Friendly Cities: A Guide* and a checklist of essential features of age-friendly cities have been published for cities to assess and improve their age-friendliness in both physical and social environments.

### **1.2 Age-friendly environment and its features**

Broadly speaking, features of an age-friendly community/neighborhood are not only confined to physical environment, such as availability of recreational facilities and access to transportation; but also social environment, such as social network and social cohesion. A recent review of international literature on features of age-friendly environment by Lui et al (2009) found that features of an age-friendly community lie along the continuum between an emphasis on physical environment and social environment. The article reviewed the existing models of age-friendly communities and summarized that most of them cover a range of features in both environments. Both physical and social environment are essential to an age-friendly environment favoring ageing in place.

#### **1.2.1 Physical environment**

Physical environment refers to the “community infrastructure or resources as well as design specifications for various aspects of the built environment that address the needs of older people living in the community” (Lui, Everingham, Warburton, Cuthill, & Barlett, 2009, p.117). The physical environment is particularly essential to the physical functioning of the older people, since they need to gain more support and backup from the physical environment as their functional capacity decline over time (Lawton, 1986). Review by Yen, Michael, & Perdue (2009) confirmed that more accessible urban design supported higher levels of walking in older people. Besides, barriers in physical environment, such as lighting and wet surface, have been identified as risk factors for fall in older people (Letts et al., 2010). In general, both outdoor and indoor environment are important considerations for the well-being of the older people.

##### **1.2.1.1 Outdoor environment**

The features of outdoor environment are closely related to the well-being of the older people. Supportive outdoors spaces contribute to a more active life-style for older people by making going outdoors easier leading to their better quality of life (Sugiyama & Thompson, 2007). In particular, walkability of a neighborhood is associated with less cardiovascular disease, obesity and depression in older people (Berke, Gottlieb, Moudon, & Larson, 2007; Berke, Koepsell, Moudon, Hoskins, & Larson, 2007). Besides, other features such as access to recreational facilities (such as shopping mall, recreational center and gym), pedestrian-oriented road design and transportation are related to increased physical activity and self-



rated health in older people (Balfour & Kaplan, 2002; Booth et al., 2000; Bowling et al., 2006; Li & Fisher, 2004; Parra et al., 2010;). Also, green spaces (e.g. parks and gardens) and blue spaces (e.g. lakes and fountains) are also found to be important to physical, social and mental well-being of older people (Finlay, Franke, McKay, & Sims-Gould, 2015). In contrary, poor street conditions, heavy traffic, excessive noise, extreme temperature and air pollution have been related to poorer health outcomes in older people (Balfour & Kaplan, 2002; Bowling et al., 2006; Liu, Lee, Perez-Padilla, Hudson, & Mannino, 2008; Schootman et al., 2006; Rantakokko et al., 2009). Similarly, reports of neighborhood problems, such as litter and rubbish, smells and fumes, and vandalisms, were associated with older adults' poorer mental health (Gale, Dennison, Cooper, & Sayer, 2011). Better urban planning and elder-oriented policy making could improve the outdoor environment for a more safe and comfortable outdoor environment for the older people.

### **1.2.1.2 Indoor environment**

Housing and indoor environment is another key factor for the well-being of older people, observing that older people are more likely to stay in their current residence as long as possible. As indicated by the AARP survey, 75% of the respondents aged 45 or above were very likely or likely to be able to stay in their current home for their rest of their life (AARP, 2003). Specifically, respondents mentioned that bedroom on the main level, non-slip floor surfaces, bathroom aids such as grab bars, personal alert system and entrance without steps were crucial to them. Brink (1998) noted that safety, security, affordability, comfortability and usability are essential considerations of older people's housing. More importantly, as home hazards were found to be the most common environmental risk factor for indoor falls (see review by Letts et al., 2010), increasing home safety has been a strategy to prevent indoor falls and increase indoor mobility among older people. Home assessment interventions and modification with a client-centered orientation and frequent follow-up can be successful in reducing falls and enhancing activity level (Chase, Mann, & Wasek, & Arbesman, 2012; Clemson, Mackenzie, Ballinger, Close, & Cumming, 2008).

### **1.2.2 Social environment**

Apart from physical environment, a supportive social environment is also essential to the well-being of the older people as well. Social environment refers to the extensiveness and quality of social connections that promote inclusion and participation in the living environment. It is widely documented that social connections serve as buffers to effect of stressful life on mental well-being (Kawachi & Berkman, 2001). Besides, social engagement to a community also provides older people with meaningful social roles, giving them purpose and meaning in life, sense of belonging and attachment to his neighborhood (Berkman, Glass, Brissette, & Seeman, 2000). Higher level of older people's social interaction is associated with lower functional decline (Avlund, Lund, Holstein, & Due, 2004) and depressive symptoms (Sugisawa et al., 2002). Review by Yen et al (2009) also confirmed that social environment in the

neighborhood were significantly associated with mortality and incidence of heart disease. Latest research also finds that social support is related to measured biomarkers strongly predictive to ageing and mortality in old age, such as systolic blood pressure, and C-reactive protein (Yang et al., 2016). Understandably, social connections are particularly important in old age, as older people are at risk of losing existing social contacts as they age, such as loss of friends and relatives or institutionalization. As noted by The Social Exclusion Unit of the United Kingdom (2006), social exclusion may start at middle age and can be particularly severe in old age. These lines of evidence provides strong support for the importance of providing and maintaining a supportive social environment for the older people.



One community level measure of social connection receiving much research interest is social capital. Social capital, being an essential social infrastructure (Putnam, 1995), is “the social resources available to people through participation in civic and community networks, essential social infrastructures and organizations, the connections and cohesiveness of networks among individuals, and the norms of reciprocity, cooperation, and trust” (Bowling et al., 2006, p.476). Social capital is manifested in a neighborhood as dimensions like social trust/reciprocity and voluntary organization participation. Indeed, associations between social capital and a range of health outcomes were found in older people. For example, Sundquist et al (2014) found that social capital is linked will all-cause mortality and cause-specific mortality in cancer, stroke and chronic lower respiratory diseases etc. Lower level of social capital is also found to be associated with psychological distress in a sample of Japanese older people (Kobaysahi, Suzuki, Noguchi, Kawachi, & Takao, 2015). Thus, fostering social trust and social participation can promote social capital in a community, which raises the overall well-being of the older people living there.

Another similar concept regarding the social environment is neighborhood social cohesion. Neighborhood social cohesion is the capacity of residents to achieve social control over the environment and to engage in collective action for the common good within a neighborhood (Sampson, 2003; Sampson, Raudenbush, & Earls, 1997). Poor neighborhood social cohesion has been found to be associated with lower self-rated health (Cagney, Browning, & Wen, 2005), frailty (Cramm & Nieboer, 2013), higher mortality (Inoue, Yorifuji, Takao, Doi, & Kawachi, 2013), and poorer mental well-being (Gale et al., 2011), independently of socioeconomic and health variables. Enhancing social bonding strengthens linkage between members in neighborhood, thus facilitating building an age-friendly community there.

An age-friendly environment enables older people to age well and maintain their well-being. In step with ageing population in Hong Kong, there is a need to investigate if the age-friendliness of Hong Kong is in pace with the demand of the rapid increase in older people. This topical report, supplementing the annual “Report on AgeWatch Index for Hong Kong”, aims to summarize the research findings about age-friendliness of the living environment in Hong Kong and provide insights in promoting enabling environment in Hong Kong.



# Chapter 2



# Chapter 2

## Conceptualizations of an Enabling Environment

An enabling environment satisfies older people's need for compensating for their physical and social changes accompanied by ageing (Beard & Petitot, 2010). The term "age-friendly" has incorporated the idea of an enabling environment where "enable older [people] to be able participate in their community" (Steels, 2015, p.45). Enhancing age-friendliness in cities has been a recent focus, since the urban living environment is influential in promoting the contribution and well-being of the older people living there (WHO, 2007b) (see Box 2.1 for how scales of well-being or quality of life in older people captures their perception about the living environment).

### **2.1 An overview of frameworks and models of enabling environment**

Recently, different frameworks or models of age-friendly cities have been put forward by researchers, local communities and policymakers. This chapter reviews some of conceptualizations of age-friendly or enabling environment in these frameworks and models, which are valuable benchmark for age-friendly initiatives to draw upon.

Review by Steels (2015) summarized key features of some of these frameworks or models (Table 2.2). A detailed examination into these frameworks or models reveals a lot of commonalities among them. For example, they cover a number of features in both physical and social aspects of environment concerned by older people. Besides, the development of these frameworks or models include participation and involvement of different stakeholders, inviting inter-sectoral collaborations between governmental organizations, research institutes, non-governmental organizations, and, most importantly, older people.



### **Box 2.1 Assessing age-friendliness of the environment in measures of well-being or quality of life of older people**

It is widely documented that both features of physical and social environments are important to the well-being or quality of life of older people. In this regard, scales or assessments of well-being/quality of life of older people should contain items probing into the age-friendliness of the environment. For example, Quality of Life Profile: Senior Version (Raphael, 1995) contain items examining both the quality of physical (e.g. being physically able to get around one's home/neighborhood) and social environment (e.g. being able to count on family members for help).

Features of environment assessed by various scales/assessments of quality of life in older people have been discussed in the article by Boggatz (2016). He examined different instruments of subjective quality of life in older people and their items relevant to the dimensions of environment. Table 2.1 presents some of these instruments and lists out the items relevant to the environmental features in these instruments.

Table 2.1 Different conceptualizations of features of environment in various quality of life

Scale/assessment	Social environment	Physical environment
Quality of Life Profile: Senior version (Raphael, 1995)	Support from family/neighbors	Space for privacy/space equipped for seniors/health services/accessibility to places in neighborhood
The World Health Organization Quality of Life Assessment for older persons (WHOQOL-OLD) (Winkler et al., 2006)	Intimacy, social participation	/
Hong Kong Quality of Life Scale for older Chinese People (HKQoLOCP) (Chan et al., 2008)	Interpersonal relationships: family relations/supportive network	Living conditions
Elderly Quality of Life Index (EQoLI) (Paschoal et al., 2008)	Social/family dimension such as living in peace with family	Environment dimension such as violence and pollution
Older People Quality of Life Questionnaire (OPQOL) (Bowling, 2009)	Social relationships and participations, social integration	Area: home and neighborhood

Source: Adapted from Table 3, p.64-65, Boggatz (2016)

From the above table, it can be seen that age-friendly environment is an integral component of older people’s well-being and quality of life. It also highlights the awareness on age-friendliness of the environment in enhancing the well-being or quality of life of older people.

Table 2.2 Selected frameworks or models of age-friendly cities and communities

Name of framework/model	Author (Year)	Country	Key features of age-friendly framework/model
Positive Ageing Framework	New Zealand Ministry of Social Development (2007)	New Zealand	<ul style="list-style-type: none"> <li>• Devised to improve opportunities for older people to participate in the community</li> <li>• Framework allows ageing policies to be understood and developed</li> <li>• Includes ten areas of policy focus: income, health, housing, transport, living in the community, Maori cultural identity, access to facilities and services, attitudes, employment, and opportunities</li> <li>• Each policy focus has a central outcome</li> <li>• Indicators allocated to each area of focus</li> </ul>
Social Connectivity framework	Menec et al. (2011)	Canada	<ul style="list-style-type: none"> <li>• Use an ecological perspective to form their framework</li> <li>• The framework is centred on the older person, followed by family and friends, the community environment and the policy environment</li> <li>• The concept of social connectivity as a basic beneficial outcome is used to connect the person to the policy environment</li> <li>• The community environment is made up of the following areas: physical environment; housing; social environment; communication and participation; transportation options; informal and formal community supports and health services; and opportunities for participation</li> </ul>
Healthy Ageing in Canada framework	Health Canada (2006)	Canada	<ul style="list-style-type: none"> <li>• Three mechanisms (supportive environments, mutual aid and self-care) in centre of framework are used to pursue vision</li> <li>• Includes five principles: dignity, independence, participation, fairness and security</li> <li>• Includes five areas of policy focus: social connectedness, physical activity, healthy eating, falls prevention and tobacco control</li> </ul>

Source: Adapted from Table 1, p.47, Steels (2015)



## **2.2 Conceptualization of enabling environment in regional/national levels**

The concept of enabling or age-friendly environment goes beyond the individual level's well-being/quality of life. Regional or even national efforts of planning an environment promoting well-being of older people are powerful to create more far-reaching impacts on well-being of all older people. Therefore, there is a need to have tools to assess multiple aspects of the enabling environment at a community, regional or even national level. The following section discusses some of these macro-level tools in evaluating different aspects of the physical and social environments which promote well-being or quality of life of older people.

### **2.2.1 Domain of enabling environment in Global AgeWatch Index**

The Global AgeWatch Index (<http://www.helpage.org/global-agewatch/>), developed and constructed by HelpAge International, is the first analytical framework that assesses key aspects of the health, economic and psychosocial well-being of the elderly at national level. It is a multidimensional index providing a global picture of performance of various countries in supporting the well-being of older people. It aims to “improve the quality of life and well-being of older people” and “highlight successes and shortcomings of strategic responses to population ageing challenges” (HelpAge International, 2013, p.7).

Capturing the multidimensionality of well-being and quality of life in older people, the Global AgeWatch Index consists of 13 indicators grouped into 4 key domains: income security, health status, capability, and enabling environment. In particular, the domain of enabling environment captures enabling features of communities in which older people live which have been prioritized by them (HelpAge International, 2013). These indicators are social connections, physical safety, civic freedom and access to public transport. Table 2.3 listed the definitions of these indicators in the domain of enabling environment.

Table 2.3 Indicators of domain of enabling environment in Global AgeWatch Index

Indicator	Objective	Item
4.1 Social connections	Measures the perceived support available from relatives or friends.	Percentage of people aged 50+ who responded “yes” to the survey question: “If you were in trouble, do you have relatives or friends you can count on to help you whenever you need them, or not?”
4.2 Physical safety	Measures how safe people feel in their neighbourhood.	Percentage of people aged 50+ given positive answers to the question “Do you feel safe walking alone at night in the city or area where you live?”
4.3 Civic freedom	Measures how much control older people feel they have over their life.	Percentage of people aged 50+ who provided a positive response to the survey question: “In this country, are you satisfied or dissatisfied with your freedom to choose what you do with your life?”
4.4 Access to public transport	Measures access to and quality of public transport which is key to older people’s quality of life, enabling them to access services (health, shops) and friends and family.	Percentage of people aged 50+ who provided a positive response to the survey question: “In the city or area where you live, are you satisfied or dissatisfied with the public transportation systems?”

Source: Adapted from HelpAge International (2013)

The findings of the latest Global AgeWatch index 2015 suggested that there is a wide cross-country variation in the domain of enabling environment. Switzerland ranked the top among 96 countries, being at the 13th, 27th, 10th and 2nd for social connections, physical safety, civic freedom and access to public transport respectively. Austria ranked the second, followed by United Kingdom, Norway and Netherlands. These countries performed quite well in building an enabling and age-friendly environment for the older people to live well and serve as potential good models for other countries to look upon when designing an enabling environment for their older people.



## 2.2.2 WHO's Age-friendly City Project

In face of global population ageing and urbanization, members of the United Nations designated “designing enabling and supportive environments” as one of the priority areas in 2002 Madrid International Plan of Action on Ageing. Subsequently, the World Health Organization (WHO) proposed an active ageing policy framework in 2002 to highlight “the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age” (WHO, 2007b, p.5). WHO's active ageing framework depends on a wide range of personal and environmental factors, including both the physical and social environment that older people settle in Figure 2.1. Therefore, by improving aspects of urban settings and services in the living environment, an age-friendly city provides older people with opportunities to achieve active ageing, thus enhancing their well-being or quality of life.

To investigate the features of an age-friendly city and determinants of active ageing, WHO adopted a bottom-up participatory approach to interview older people around the world about their view of age-friendliness of a city. A total of 1485 participants aged 60 or above from 33 cities joined the focus groups to express their views of various age-friendliness topics of their cities. Similarly, focus groups with caregivers and service providers from the public, voluntary and commercial sectors were also conducted. Eight domains have been identified as aspects of urban life which are essential determinants of active ageing in an age-friendly city. A checklist of essential features under these eight domains has been developed for various stakeholders to examine the age-friendliness of their cities. These eight domains and some of their components are summarized in Table 2.4. The complete checklist (WHO, 2007a) is available at [http://www.who.int/ageing/publications/Age\\_friendly\\_cities\\_checklist.pdf](http://www.who.int/ageing/publications/Age_friendly_cities_checklist.pdf).

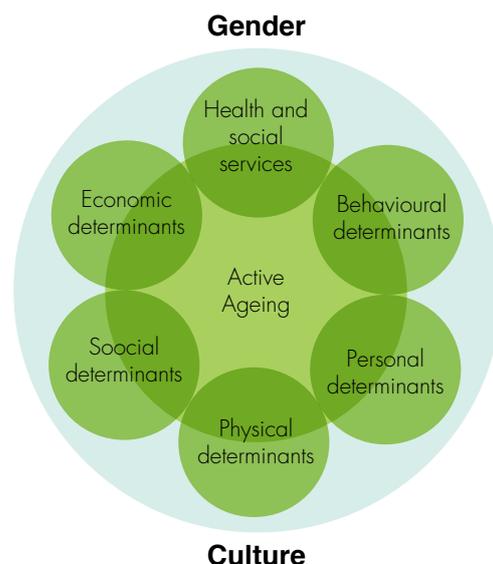


Figure 2.1 Determinants of active ageing  
Source: p.5, WHO (2007b)

Table 2.4 Eight domains of WHO's Age-friendly City concept and selected descriptions from each domain

Age-friendly city topic areas	Examples of features of age-friendliness
Outdoor spaces and buildings	<ul style="list-style-type: none"> <li>- Pleasant and clean environment (including greenspaces)</li> <li>- Age-friendly pavements and safe pedestrian crossings</li> <li>- Age-friendly buildings</li> </ul>
Transportation	<ul style="list-style-type: none"> <li>- Availability and affordable</li> <li>- Reliability and frequency</li> <li>- Age-friendly vehicles and specialized services for older people</li> </ul>
Housing	<ul style="list-style-type: none"> <li>- Affordable housing</li> <li>- Age-friendly modification and maintenance</li> <li>- Comfortable and safe living environment</li> </ul>
Social participation	<ul style="list-style-type: none"> <li>- Affordable and diverse activities</li> <li>- Promoting and awareness of activities</li> <li>- Fostering community integration</li> </ul>
Respect and social inclusion	<ul style="list-style-type: none"> <li>- Respectful and inclusive services</li> <li>- Public images of ageing</li> <li>- Intergenerational and family interactions</li> </ul>
Civic participation and employment	<ul style="list-style-type: none"> <li>- Volunteering options for older people</li> <li>- Age-friendly employment options</li> <li>- Civic participation</li> </ul>
Communication and information	<ul style="list-style-type: none"> <li>- Age-friendly formats and design</li> <li>- Widespread information</li> <li>- Use of information and communication technology</li> </ul>
Community support and health services	<ul style="list-style-type: none"> <li>- Accessible and affordable health care services</li> <li>- Extensive network of community services</li> <li>- Emergency planning and care</li> </ul>

Source: Adapted from WHO (2007b).



### 2.2.3 WHO's core indicators to measure the age-friendliness of cities

The use of indicators to rate age-friendliness was suggested by researchers (Beard & Petitot, 2010; Lui et al., 2009). Indicators enable different stakeholders to measure age-friendliness of various areas quantitatively, thus providing evidence about the effectiveness of age-friendly city interventions or policies and tracking change in age-friendliness over time. In order to provide structured guidance for cities to develop relevant and appropriate indicators to assess their age-friendliness, the WHO (2015b) has also examined to use core indicators to plan, monitor and evaluate the age-friendliness of a city. The indicators follow a systematic and scientific approach to capture measurability, validity, replicability, sensitivity to change and possibility of disaggregation. These indicators, covering both accessibility of the physical environment and the inclusiveness of the social environment, allow flexibility for regional adaptation. Two types of operational definitions are provided in each indicator. Some examples are shown in Table 2.5.

As mentioned in WHO (2015b), the core indicators do not necessarily correspond to the eight domains of an age-friendly city presented above although the original key concepts and principles of the eight domains have been incorporated. These core indicators serve as measurable and practical tools for investigation of age-friendliness of a city and also for evaluation of progress of intervention programs in enhancing age-friendliness. The full list of these core indicators can be found in the document *Measuring the age-friendliness of cities: a guide to using core indicators*, which can be retrieved from the link [http://www.who.int/kobe\\_centre/ageing/age\\_friendly\\_cities/AFC\\_Indicator\\_Guide\\_Pilot\\_English.pdf](http://www.who.int/kobe_centre/ageing/age_friendly_cities/AFC_Indicator_Guide_Pilot_English.pdf).

Table 2.5 Examples of core indicators measuring age-friendliness of cities

	Suggested definition	Suggested definition using self-report data
<b>Accessibility of the physical environment (in total 5 indicators)</b>		
1. Neighborhood walkability	Proportion of streets in the neighbourhood that have pedestrian paths which meet locally accepted standards.	Proportion of older people who report that their neighbourhood is suitable for walking, including for those who use wheelchairs and other mobility aids.
2. Accessibility of public transportation vehicles	Proportion of public transport vehicles with designated places for older people or people who have disabilities.	Proportion of older people who report that public transport vehicles (e.g. train cars, buses) are physically accessible for all people, including those who have limitations in mobility, vision or hearing.
3. Affordability of housing	Proportion of older people who live in a household that spends less than 30 per cent of their equalized disposable income on housing.	Proportion of older people who report that housing in their neighbourhood is affordable.
<b>Inclusiveness of the social environment (in total 8 indicators)</b>		
1. Paid employment	Proportion of older people who are currently unemployed.	Proportion of older people who report to have opportunities for paid employment.
2. Availability of social and health services	Proportion of older people living in a household with a disposable income above the risk-of-poverty threshold.	The proportion of older people who report having their personal care or assistance needs met in their home or community through the use of formal (public or private) services.

Source: Adapted from WHO (2015b)



In 2015, the Public Health Agency of Canada (2015) has applied the indicators to measure the baseline of and progress of initiatives in eight domains of age-friendliness of the local community. Box 2.2 describes more details of this guide which serves as a reference model of how the framework can be adopted into local practice.

The urban living environment creates both challenges and opportunities to induce age-friendliness in promoting active ageing and well-being of older people. Understandably, conceptualizations of age-friendly environment in various frameworks or models target both physical and social aspects of the environment, with emphasis on collaborations between multiple stakeholders and engagement of older people. These conceptualizations give valuable insights to building up an enabling and age-friendly environment in different communities and countries around the world.

**Box 2.2 The use of indicators in planning, implementing and evaluating age-friendly community initiatives: The case of Canada**

Different countries or regions are developing their own measures to evaluate the age-friendliness of their communities under the WHO’s framework, including Canada. The Public Health Agency of Canada developed *the Age-friendly Communities Evaluation Guide* as part of its continuous commitment to promote the use of WHO’s Age-friendly Cities model throughout Canada. The aim of the Guide is to help local communities measure the progress of their age-friendly programmes to improve life of older people.

The Guide enlists 43 indicators across eight domains under the WHO age-friendly city framework, in addition to four indicators of longer-term health and social outcomes. It also provides suggestions and practical tools to measure each indicator, which can be tailor-made to meet the needs of different local communities. These indicators were designed to be specific, observable and measurable, over the short, medium and long term (see an example in the area of transportation in Table 2.6). The Guide provides a valuable reference to those who advocates the use of evidence-based tools to assess and improve age-friendliness of their areas. For more details, please refer to the Guide available at <http://www.phac-aspc.gc.ca/seniors-aines/alt-formats/pdf/indicators-indicateurs-v2-eng.pdf>.

Table 2.6 Example of indicators measuring age-friendliness in the area of transportation in Age-friendly Communities Guide developed by Public Health Agency of Canada

Domain	Theme	Indicator	Suggested measurement method
Transportation	Transportation options and public transit	<ul style="list-style-type: none"> <li>· Availability of a range of affordable options for transportation.</li> <li>· Proportion (or number) of buses that are accessible, clean, and with destination and number clearly displayed.</li> <li>· Bus stops/shelters are safe and accessible.</li> <li>· Proportion of people age 65+ who have access to and use public transportation.</li> </ul>	Program inventory and/or existing municipal data
	Age-friendly streets and parking	<ul style="list-style-type: none"> <li>· Streets have clear and appropriate street signage and lane markers.</li> <li>· Parking lots and spaces are kept clear of snow and ice.</li> </ul>	Walking assessment

Source: Public Health Agency of Canada (2015)



# Chapter 3



## Chapter 3

### Worldwide Examples of Initiatives of Creating an Enabling Environment

In face of rapid global ageing population, international, regional and national levels of initiatives to improve age-friendliness have been implemented in the last decade. This chapter illustrates with examples international and regional efforts in creating an enabling environment for older people. Contemporary initiatives with some serving as possible role models for cities or communities, including Hong Kong, will be cited.

#### 3.1 The World Health Organization (WHO) and its initiatives

The WHO has been playing a proactive role in promoting well-being of older people around the world. In response to global ageing population, WHO promoted and facilitated the creation of age-friendly cities and communities in 2010 when the WHO Global Network of Age-friendly Cities and Communities (Network) was established to support local's vision of making their community age-friendly. The Network is committed to fostering involvement of older people and multi-sectoral stakeholders, evaluating the age-friendliness of their place and identifying priorities for action, and directing evidence-based planning and policy-making. As of 30 June 2016, the Network has included more than 280 cities and communities in 33 countries.

In 2015, WHO published the *World Report on Ageing and Health* to put forward the public health framework of healthy ageing and ways to achieve it. The report conceptualizes healthy ageing as “the process of developing and maintaining the functional ability that enables well-being in older age” (WHO, 2015c, p.13; see Figure 3.1). Under the framework, the intrinsic capacity of an individual is defined as “the composite of all the physical and mental capacities that [he or she] can draw on at any point in time” (WHO, 2015c, p.12), and interacts with the environment to bring about older people’s functional ability, which is “health-related attribute that enables people to be and to do what they have reason to value” (WHO, 2015c, p.13), and serves as the goal of healthy ageing.

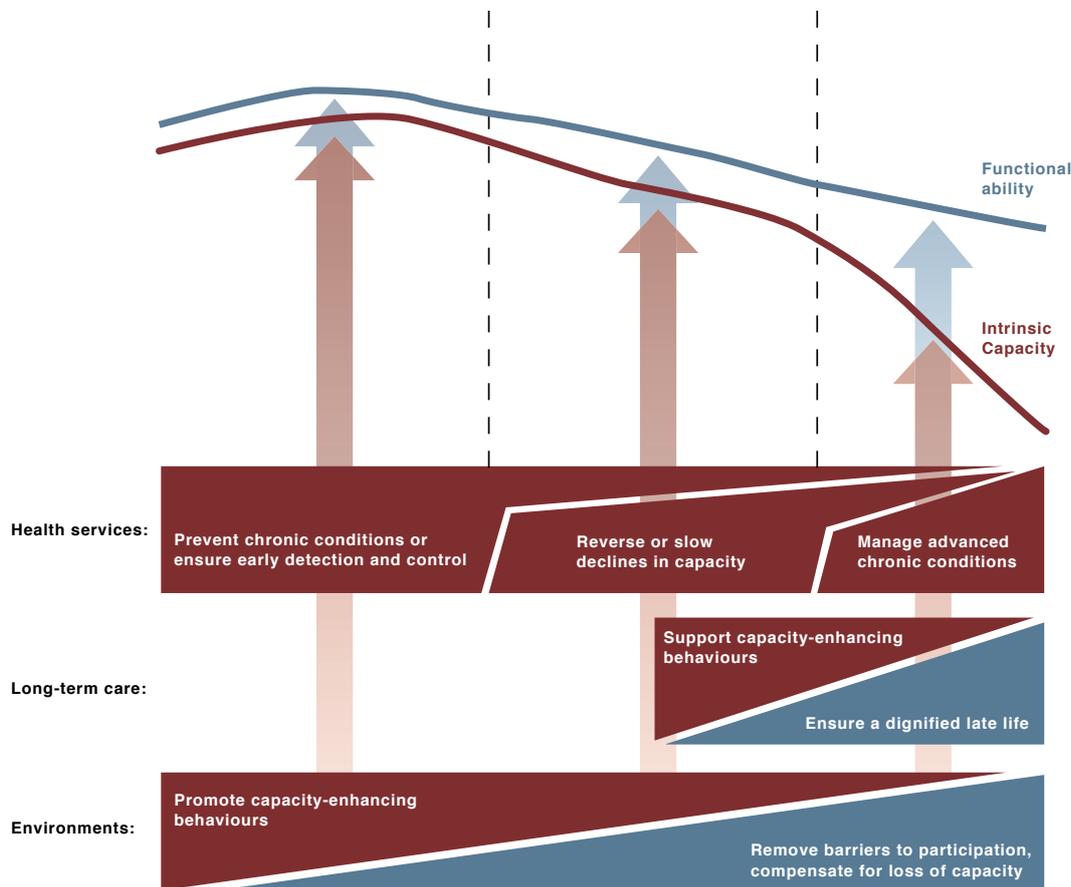


Figure 3.1 The public-health framework for Healthy Ageing: Opportunities for public-health action across the life course

Source: p.14, WHO (2015c). *World Report on Ageing and Health-Summary*.

Creating an age-friendly environment is one of the ways to achieve healthy ageing as the functional ability of older people depends very much on their surrounding living environment (WHO, 2015c). The report discusses five key domains of functional ability that can be fostered by their living environment, namely “to meet their basic needs”, “to learn, grow and make decisions”, “to be mobile”, “to build and maintain relationships”, and “to contribute to families and communities”, which are valued by older people. Enhancing age-friendliness creates positive impacts to more than one of these abilities which are strongly interconnected. For example, safe and affordable transportation enables older people to access basic living needs such as food and health care, while they can also go out to learn new skills, take voluntary or paid work, and meet friends.

Achieving healthy ageing through creating age-friendly environment attracts attention from many countries around the world. In view of this, the WHO consulted its member states and other stakeholders to develop a comprehensive *Global Strategy and Action Plan on Ageing and Health*. It suggests two goals to achieve its vision of promoting healthy ageing globally:

1. By 2020, all governments commit to fostering healthy ageing, with action plans in place to maximize functional ability that reach every person.
2. By 2020, governments, other stakeholders and older people themselves build a platform to support a Decade on Healthy Ageing (2020-2030).



The Strategy highlighted the objective of creating age-friendly environments to optimize functional ability. Recently, the Draft 1 of the *Global Strategy and Action Plan on Ageing and Health* (WHO, 2015a) proposed three approaches to create age-friendly environment: enable autonomy, empower older adults and their families and organizations that represent them, and support healthy ageing interventions at all levels of government. Complementing WHO's effort in promoting age-friendly environments, countries and communities have launched a wide range of programmes and initiatives to improve their age-friendliness. Some innovative and effective initiatives can be used as references in adopting WHO's guidelines into effective practices in improving the age-friendliness of their communities.

## 3.2 Age-friendly city initiatives around the world

### 3.2.1 Canada

In Canada, the proportion of people aged 65 and above will surge from 15.3% in 2013 to 23.4% in 2033 (medium growth scenario; Statistics Canada, 2015). To plan for age-friendly communities within Canada, the Public Health Agency of Canada takes the role of national coordination and facilitation of age-friendly community initiatives, while the provincial governments direct to promote and implement action in collaboration with municipal governments (Plouffe et al., 2012). As early as in 2006, the Federal, Provincial, and Territorial Ministers Responsible for Seniors of Canada released a discussion paper entitled *Healthy Ageing: A New Vision, A Vital Investment* (Federal, Provincial, and Territorial Ministers Responsible for Seniors, Canada, 2006) to advance the notion of "supportive environments" as a key policy mechanism to support healthy ageing in Canada. The paper defines supportive environments as "the physical and social surroundings that enable healthy aging in the settings where older Canadians live, work, learn, love, recreate and worship" (p.10). It coincides with the WHO project in developing the *Age-friendly City Guide*. Specifically, four provincial governments in Canada supported



the participation of their cities (i.e. Sannich in British Columbia, Portage la Prairie in Manitoba, Sherbrooke in Quebec, and Halifax in Nova Scotia) in the consultation stage of development of the guide.

As at 30 June 2016, 22 cities and communities in Canada have joined the Network. Local efforts to improve age-friendliness have been supported by provincial governments and the federal government through multi-sectoral engagements, application of policy tools at their disposal and promotion of knowledge development and evaluation (Plouffe & Kalache, 2011). Different cities or communities have developed their own age-friendly initiatives best suit their local needs in their places. For example, the City of London, the first city in Canada to join the Network, created opportunities for older people to participate in the design of new and repurposed community centers to ensure their needs are considered during the planning stage. In Ottawa where around 10% of older people are isolated and more risky of reducing independence, the Community Connect programme was established in 2013 to arouse the awareness of and identify vulnerable older people as well as to offer telephone information and referral services to them. Different from traditional referral service, the programme regularly contacts older people, identify and link isolated or at-risk older people for extra support.

### 3.2.2 United States

The number of Americans aged 65 and above will be more than double by 2060 (Population Reference Bureau of United States, 2015). By 2060, 24% of the Americans will be aged 65 and above, increasing from 15% in 2014. To prepare for the ageing population, many age-friendly initiatives are being implemented in the United States. Scharlach (2012) has identified a total of 292 age-friendly initiatives in the United States, including community planning initiatives, system coordination and programme development, co-location of services, and consumer associations. These include participation by Portland and New York in preparation of the *Global Age-friendly Cities: A Guide*. Most of these age-friendly initiatives identified involve community planning efforts mainly by local cities and towns, while the federal government seems to play a relatively smaller role (Scharlach, 2012).

As at June 2016, more than 50 cities and communities in United States joined the Network and started to make changes to prepare for an ageing society. For example, New York City has launched Age-friendly New York City (<http://www.agefriendlynyc.org/index.html>), jointly led by the Office of the Mayor of New York City, the New York City Council, and The New York Academy of Medicine, to make it a better place to age well. This project covers multiple aspects of older people's living experience in New York City. One of the initiatives is a searchable online directory of life-long learning opportunities

for older people at New York City's colleges and university. Other initiatives include helping business attract older people by considering age-friendly features of their business and training ambassadors to promote the concept of age-friendliness. Similar age-friendly initiatives in other cities in the United States are on a rise.

### 3.2.3 Australia

The Australian population aged 65 years or above is expected to increase from 14% at mid-2012 to around 19% in 2031 (Australian Bureau of Statistics, 2013). The effort of Australia to build up age-friendly environment can be traced back to the 1990s when the national governments and some states attempted to develop more evidence-based policies on ageing and health (Kendig & Browning, 2010). Among Australian cities, the State of Victoria has been at the forefront of the age-friendly initiatives. It is one of the earliest participants in developing the WHO Age-friendly Project. One of its cities, Maribyrnong, contributed to the *WHO Age-friendly City Guide* released in 2007. Following the success of Victoria, the WHO age-friendly framework has been widely adopted by more local governments. A review of local government's use of the *WHO Age-friendly City Guide* concluded that older people and government officials viewed the checklist valuable for addressing concerns for ageing over domains and over levels of government (Municipal Association of Victoria, Victorian Government, Council on the Ageing of Victoria, 2009).

Detailed and long-term planning of age-friendly initiatives in Australia is manifested in their action plans. An example is the *Active Ageing Strategy* by the City of Unley (2015) in South Australia. The key priorities within the strategy were based on an extensive engagement undertaken in late 2014. The strategy outlines not only actions being carried out, but also short term "quick wins" as well as longer term objectives. For instance, to achieve the goal of "our residents are actively involved in the community throughout their lives", several "quick wins" are noted. One of them is the activation of the An Active Ageing Alliance to provide input and advice to all areas of Council operation on enhancing Age Friendly approach, which also aims to increase older people's community involvement and participation in shaping the city. These "quick wins" serve as practical stepping stones to achieve the longer term objectives.

### 3.2.4 Japan

Japan is facing a rapidly ageing population. The latest estimate suggests that 26% of the Japanese population is 60 years old or above in 2014 (Statistics Bureau, Japan, 2016b). The population projection made in January 2012 estimated that Japanese population aged 65 or above will reach nearly 40% in 2060 (Statistics Bureau, Japan,



2012a), ageing faster than any other counties in the world (The Economist, 2014). In order to better plan and prepare for an enabling environment for current and future generation of older people, the *General Principles Concerning Measures for the Aged Society* have been established as guidelines for comprehensive measures to be enforced by the Japanese Government. The implementation status of age-friendly measures is reported in the *Annual Report on the Ageing Society*. In the 2015 report (Cabinet Office, Japan, 2015), ongoing programmes such as promotion of information and communication technologies use, development of a lifelong learning network forum, promotion of disaster prevention measures were featured, aiming to promote social participation and learning as well as living environment for the older people.

Each prefecture or city has its own age-friendly policies as well. Akita City was the first Japanese city to participate the Network in December 2011. Attending to its higher than national average of proportion of older people, Akita City has adopted the basic principle of “[building] a society in which people can lead a lively life by continuing to be active and contributing to their local communities even in older age” (Akita City Hall Health and Welfare Department, 2013) in its age-friendly city action plan. Collaboration between the city government and the citizens follows eight basic policies. For example, for Basic Policy 2: Improve the convenience of transportation facilities, the Bus Coin Project has been implemented to allow older people aged 68 and above to take a bus at an affordable price of 100 yen.

On the other hand, Japan is innovative in redesigning communities for older people to age in place. In a project by the Institute of Gerontology, the University of Tokyo, a social experiment is conducted in the Toyoshikidai district of Kashiwa City, Chiba Prefecture. The project has already begun construction in this rapidly aging neighborhood of an age-friendly community that includes not only recreation and healthcare facilities, but also workplaces for the elderly (Figure 3.1). In addition, a “Community Eatery” is set up at the center of the neighborhood aiming to extend healthy lifespans of older people by providing them with nutritionally balanced meals in a comfortable setting. It is a dining hall that caters both older and younger citizens, thus facilitates intergenerational exchange. Similar community-redesigning projects have also been implemented in Fukui City, Fukui Prefecture and Otsuchi Town, Iwate Prefecture.

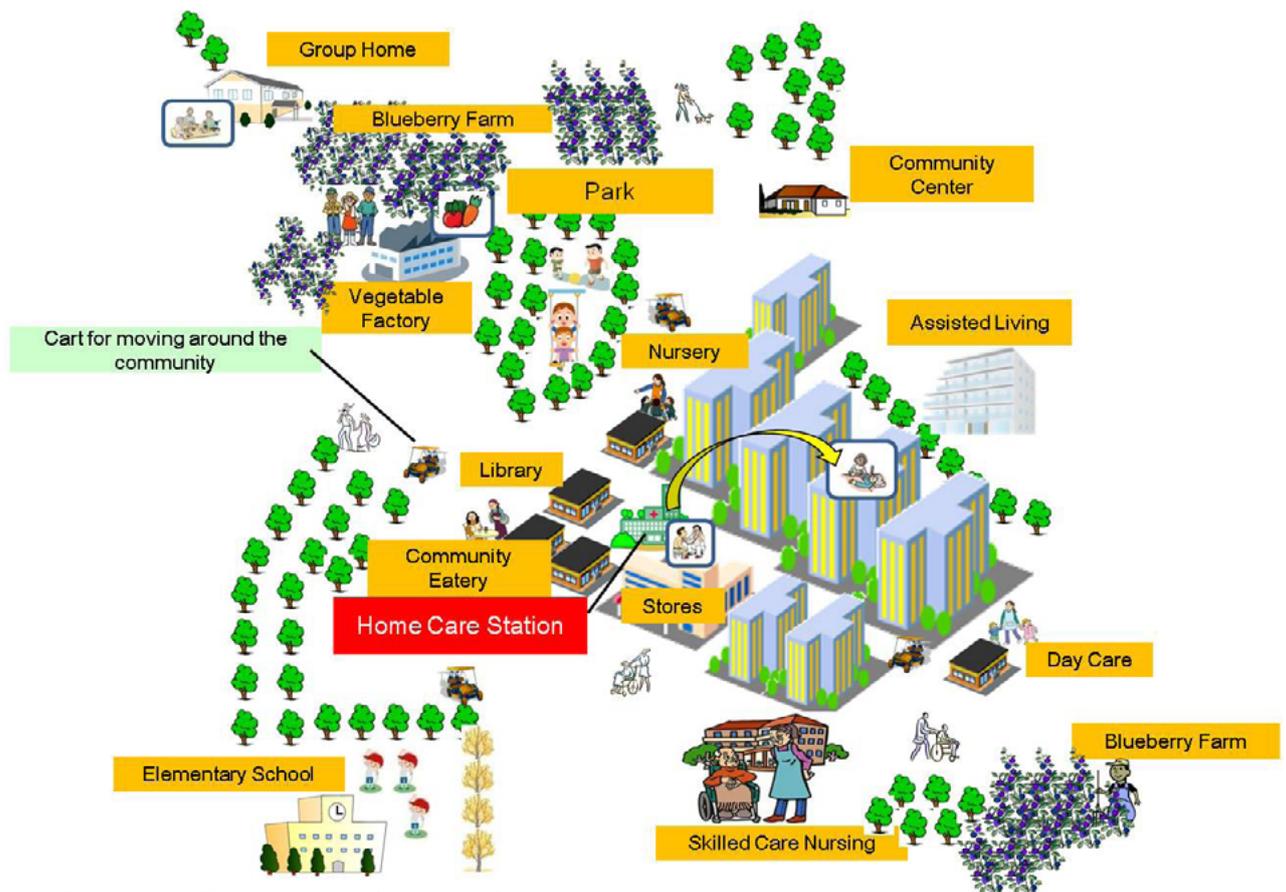


Figure 3.2 The design of an age-friendly community in Kashiwa

Adapted from <http://www.u-tokyo.ac.jp/en/utokyo-research/feature-stories/toward-active-living-by-a-centenarian-generation/>

### 3.3 Age-friendly cities initiatives and Global AgeWatch Index (GAWI)

The ultimate goal of creating age-friendly environment is to provide a supportive place for older people to age well and enhance their well-being. It is therefore interesting to know how countries fare in overall age-friendliness and what age-friendly initiatives have been taking or taken by them. While Domain 4 of GAWI offers us a scientific tool to assess the well-being of older people in terms of perceived age-friendliness of their countries, looking into age-friendliness initiatives of countries with excellent performance in GAWI Domain 4 provides insights of good initiatives. They could be taken as references when designing and implementing age-friendly initiatives in own community, cities and even countries. Table 3.1 summarizes selected examples of age-friendly initiatives listed in the WHO Global Database of Age-friendly Practices by countries with high ranking in Domain 4 of Global AgeWatch Index 2015.



A glance of Table 3.1 revealed that countries with outstanding performance in the domain of enabling environment have implemented various age-friendly initiatives to enhance the living environment of their older people. These initiatives cover multiple domains of age-friendliness proposed by WHO, including both physical and social environments. In addition, engagement of older people from planning to implementation stages in these initiatives is common, highlighting a bottom-up approach in improving age-friendliness. These approaches should be encouraged when designing age-friendly initiatives for improving the well-being of older people.

Examination of the indicator ranking in the domain of enabling environment reveal possible relationships on how age-friendly initiatives are related to a particular aspect of age-friendliness. For example, United Kingdom ranked the 3rd in terms of the indicator of social connection, suggesting older people there has developed extensive and intimate social network. Several initiatives targeting the social environment in the United Kingdom were listed in the WHO database. One of the initiatives is the Age-friendly Belfast Intergenerational Toolkit and Guide by Belfast, a city in Northern Ireland of the United Kingdom. The guide and toolkit provide practical guidelines in adopting an intergenerational approach to actively engage older people in their communities to promote their social participation and a sense of belonging. Programmes adopting an intergenerational approach promote interactions between generations, allowing younger and older people to participate, meet and cooperate. Such an intergenerational approach not only helps extend older people's social network, but also enhances mutual understanding between generations which in turn helps alleviate ageism. The guide and toolkit serve as valuable resources for cultivating intergenerational harmony and promoting social inclusion among older people in Belfast.

Numerous initiatives building enabling environment for older people aim to improve well-being of older people with different specific needs, including those with chronic disease and dementia (see Box 3.1 for guidelines of building up dementia-friendly communities in the United Kingdom). Age-friendly initiatives around the world have provided insights on how an enabling environment for older people can be realized in real practice. These initiatives serve as valuable references for Hong Kong to design and implement age-friendly initiatives in local communities.

Table 3.1 Global AgeWatch Index 2015 ranking and selected examples of age-friendly initiatives from WHO Global Database of Age-friendly Practices

Country	Value of Domain 4 GAWI 2015	Ranking of Domain 4 GAWI 2015 <sup>a</sup>	No. of age-friendly initiatives	Example(s) of Initiatives	City or community	Domain of WHO age-friendliness targeted
Switzerland	83.74	2	1	Polaroid - Espace de conversation de langues étrangères (in English: Polaroid – Space for conversation in foreign languages)	Geneva	Social participation
United Kingdom	81.81	4	6	Older People's website for information and advice	Newcastle upon Tyne	Communication and information
				Age-friendly Belfast Intergenerational Toolkit andGuide	Belfast	Respect and social inclusion
Norway	80.09	5	2	Recognizing volunteering seniors	Oslo	Community support and health services
Slovenia	79.17	8	3	Computer literacy lessons for the elderly	The City of Ljubljana	Respect and social inclusion
Canada	78.86	10	12	The Halton HomeShare Program	Burlington	Housing
				Age-Friendly Outdoor Trails	Ottawa	Outdoor space and building
United States of America	76.78	18	14	Safe Routes to Age in Place	Little Havana, Miami, Florida	Transportation
				Mayoral Candidate Forum	Portland, Oregon	Employment and civic participation
				Tool Table: Devices to make everyday life a little easier	Bowdoinham, Maine	Housing
Spain	74.70	13	2	Age-friendly business	Ordizia, Orio, Zumarraga & Hondarribia	Respect and social inclusion

<sup>a</sup>The rankings are the original ranking of the GAWI 2015 (i.e. without Hong Kong)

Source: HelpAge International (2015a) & WHO Global Database of Age-friendly Practices ([http://apps.who.int/datacol/custom\\_view\\_report.asp?survey\\_id=600&view\\_id=653&display\\_filter=1](http://apps.who.int/datacol/custom_view_report.asp?survey_id=600&view_id=653&display_filter=1))



	Involvement of older people	Role of older people
	Multiple or all stages	The senior participants manage and animate the conversation tables, contribute to the preparation of the aperitif.
	Multiple or all stages	Elders Council led the way in demonstrating how older people can be involved in identifying issues of concern, and in participating in co-producing solutions.
	Multiple or all stages	There is an on-going relationship with older people promoting intergenerational practice. The Greater Belfast Seniors Forum was consulted, inputted into our practice, designed and developed new ways of working and incorporated young people's perspectives in the development of our intergenerational resource.
	Multiple or all stages	The City of Oslo awarded the elected volunteers with an Oslo's coat of arms reward medallion.
	As service users	Older people were empowered to start using new technologies and communications.
	Multiple or all stages	Older people come together to address the strengths, needs, gaps and barriers as it relates to Housing in the City of Burlington.
	Multiple or all stages	Older adults were involved in all aspects of the initiative, through involvement on the planning committee, volunteering to conduct trail audits, and participation in the workshops.
	Multiple or all stages	Older people were empowered to identify changes needed for creating sage walking areas and voice their needs to the right stakeholders.
	Multiple or all stages	A forum where the top candidates of election discussed age-friendly topics in public was hosted. Older adults were involved in planning the event.
	Multiple or all stages	Conversations with older residents were organized to find out what kind of devices they needed in their home that they had not been able to find. All of the devices on the tool table are a direct response to a need expressed by one of residents.
	Consulted during the planning process	Older people and people with dementia are involved in forums and focal groups about businesses and shops.

### Box 3.1 Building an enabling environment for people with dementia: Dementia-friendly communities in the United Kingdom

Older people with dementia face great barriers in their living environment. This gives rise to initiatives of building dementia-friendly communities for them. According to the findings from Alzheimer’s Society “DFC survey”, many people with dementia feel isolated from their local area and cannot participate in activities they enjoyed before their condition developed. The survey also highlighted the psychological and emotional barriers faced by them, such as a lack of confidence, being worried about becoming confused, being worried about getting lost and also mobility and physical health issues. In order to enhance the quality of life of people with dementia, there is a need to build up a dementia-friendly community.

A dementia-friendly community is a community where people with dementia “are empowered to have high aspirations and feel confident, knowing they can contribute and participate in activities that are meaningful to them” (Alzheimer’s Society, 2013, p.41). There are 10 key areas that dementia-friendly communities should achieve and are summarized in Figure 3.3. Interested readers may consult *Building Dementia-Friendly Communities: A Priority for Everyone* for more descriptions and examples of each of these areas in the United Kingdom.



Figure 3.3 Ten aspects of dementia-friendly community

Source: p.x, Alzheimer’s Society (2013).



# Chapter 4



## Chapter 4

### Hong Kong as an Age-friendly City: An Overview

Providing an enabling or age-friendly environment in Hong Kong is essential to the well-being of its older people. Examining the history and development of age-friendly initiatives and projects, in addition the research findings, help understand the current status of age-friendliness in Hong Kong.

#### 4.1 History of age-friendly initiative in Hong Kong

Hong Kong was not one of the participating members when the WHO first launched the Age-friendly City Project in 2006. However, the concept of age-friendly city has quickly attracted attention in various parties in Hong Kong, mainly the NGOs, district councils and charities. In the early phase, the promotion and implementation of age-friendly city in Hong Kong was in a grass-root governance mode (Sun, Chao, Woo, & Au, 2017). Woo (2013) commented that Hong Kong was quite early in adopting and promoting age-friendliness. The concept of age-friendly city was first promoted by the Hong Kong Council of Social Service (HKCSS), a territory-wide federation of NGOs of Hong Kong with more than 400 agency members. As early as in 2008, the HKCSS set up a steering committee to enhance public awareness on age-friendly Hong Kong via soliciting support from NGOs and other local agencies at district level. Programmes of age-friendly Hong Kong were initiated in 2009 in four districts (e.g. Kwai Tsing, Sai Kung, Central and Western, and Southern district). With continuous support from charities and district councils, age-friendly city programmes are being implemented in 18 districts. These programmes are conducted by its NGO members, following guidelines from a manual designed by the HKCSS in adopting WHO's concept of age-friendly city to improve age-friendliness of the district. In supporting WHO's call for an age-friendly city, the Hong Kong Jockey Club Charities Trust also actively launched age-friendly campaigns and programme. The CADENZA Symposium 2010: "Age-Friendly World Cities and Environment" was jointly organized by the by CADENZA: A Jockey Club Initiative for Seniors with the Faculty of Social Sciences at the University of Hong Kong and Faculty of Medicine at the Chinese University of Hong in 2010.

In 2011, a public education campaign was organized by the HKCSS and CADENZA: A Jockey Club Initiative for Seniors to raise public awareness of the importance of an age-friendly Hong Kong and to create a more inclusive environment for older people. The five-month campaign included workshops, ambassadors training and a short film competition to spread the concept of age-friendly city in Hong Kong. Then in 2015, the Hong Kong Jockey Club Charities Trust partnered with four local gerontology research institutes to commence the "Jockey Club Age-friendly City Project". The project targets at building momentum in districts to develop into an age-friendly community, recommending a framework for districts to undertake continual improvement in age-friendliness, and arousing public awareness and encouraging community participation. The project is piloted in eight districts, in which their age-friendliness were assessed



and areas for improvement were identified. Starting from 2017, the project has been extended to the remaining ten districts.

The Hong Kong SAR government has implemented numerous age-friendly related policies and programmes. Elderly-centered initiatives are launched by various governmental bureaux and departments. In particular, the Elderly Commission was established in 1997 to advise the Hong Kong Government on the setting up a comprehensive policy for older people to age actively and healthy. In recent years, the Government has started to take up an active role in developing Hong Kong into an age-friendly city. The notion of building an age-friendly Hong Kong first appeared in the consultation document of population policy in 2013. In making continuous efforts to develop Hong Kong into an age-friendly city to promote active ageing, the Hong Kong government has formally incorporated age-friendly initiatives in the *Policy Address 2016*. Continual improvements in age-friendliness of Hong Kong and additional age-friendly initiatives have also been mentioned in the latest *Policy Address 2017*. In addition, the Labour and Welfare Bureau provides additional resources to district councils to encourage them to join the WHO Global Network of Age-friendly Cities and Communities and improve the age-friendliness of districts. With concerted efforts of NGOs, charities, district councils and the government, effective coordination and mobilization of resources will further enhance the age-friendliness of Hong Kong.

## **4.2 Researches on age-friendliness of Hong Kong**

A comprehensive review of age-friendliness of Hong Kong not only provides insights about the current status of Hong Kong in providing an enabling environment for the older people, but also offers a basis for measurable outcomes to track changes in age-friendliness over time. Several attempts have been made to assess age-friendliness in Hong Kong using different frameworks as follows:

### **4.2.1 AgeWatch Index of Hong Kong 2015: Domain of enabling environment**

The Global AgeWatch Index assesses essential elements of an age-friendliness of countries from a global level, including the domain of enabling environment. Although the Global AgeWatch Index so far does not include Hong Kong, the CUHK Jockey Club Institute of Ageing has compiled the “AgeWatch Index for Hong Kong” based on the methodology of the Global AgeWatch Index. According to the findings of the “AgeWatch Index for Hong Kong 2015”, Hong Kong ranked the first in the domain of enabling environment among 97 countries or territories. The ranking of the indicators in the enabling environment domain, in comparisons with some developed countries, are summarized in Table 4.1.

Table 4.1 Ranking of domain of enabling environment and its indicators in AgeWatch Index for Hong Kong 2015

Ranking(s)					
Country/territory	Domain of enabling environment	Indicator 4.1 Social connections	Indicator 4.2 Physical safety	Indicator 4.3 Civic freedom	Indicator 4.4 Access to public transport
Hong Kong	1	57	1	21	1
Switzerland	2	13	27	10	3
United Kingdom	4	3	27	15	9
Canada	10	3	13	10	62
USA	18	3	24	32	27
Japan	22	22	16	40	49

Source: CUHK Jockey Club Institute of Ageing (2017), HelpAge International (2015)

The domain of enabling environment in AgeWatch Index for Hong Kong offers an overall territory-wide sketch of the age-friendliness of Hong Kong. The above findings suggested that Hong Kong's performance was excellent in providing an enabling environment to support the well-being of its older people. Specifically, Hong Kong ranked the top for the indicator of physical safety and access to public transport. However, Hong Kong's performance in social connections lagged behind many developed countries. The findings suggest that older people in Hong Kong may not have adequate social support in the social environment, although it is safe and highly accessible. Detailed findings and discussion of the AgeWatch Index for Hong Kong can be found in recently published Report on AgeWatch Index for Hong Kong 2015.

In addition to studying variations in environmental determinants of well-being across countries, the enabling environment domain of the Global AgeWatch Index could also be used to examine variations in well-being of older people within a country or territory. Box 4.1 discusses the relationship between the domain and well-being indicators in Hong Kong older people.



### Box 4.1 Individual's perceived age-friendliness under the framework of Global AgeWatch Index and their well-being

It is found that individuals' perceived age-friendliness based on the framework of the enabling environment domain of the Global AgeWatch Index is related to their well-being. A telephone survey (Hong Kong Elderly Well-being Survey 2015) was conducted to investigate the perceived age-friendliness of Hong Kong based on the four indicators in the enabling environment domain of the Global AgeWatch Index. Well-being indicators, such as life satisfaction, mental health, and sense of community, were also measured. 1202 participants over 50 years old were successfully interviewed. Results suggested that all four indicators in the domain of enabling environment were associated with all of the well-being measures. Besides, the domain of enabling environment (geometric mean of the ratings of the four indicators) was associated with all of the well-being indicators after controlling for demographics. In particular, the indicators of physical safety and access to public transport were independently associated with all of the well-being indicators (see Table 4.2). The findings reveal that perceived age-friendliness of individuals is related with their well-being, which suggests that interventions targeting the age-friendliness within a country or territory may improve the citizens' well-being.

Table 4.2 Results of regressions of domain of enabling environment of the Global AgeWatch Index on well-being indicators in Hong Kong

	Outcome variable		
	Life satisfaction	Mental health	Sense of community
Domain of enabling environment	Standardized beta		
Social connections	0.20***	0.05	0.17***
Physical safety	0.08*	0.12**	0.14***
Civic freedom	0.14***	0.07	0.13**
Access to public transport	0.24***	0.17***	0.24***

Models were adjusted for gender, age, education level, and employment status

\*\*\*  $p < .001$

\*\*  $p < .01$

\*  $p < .05$

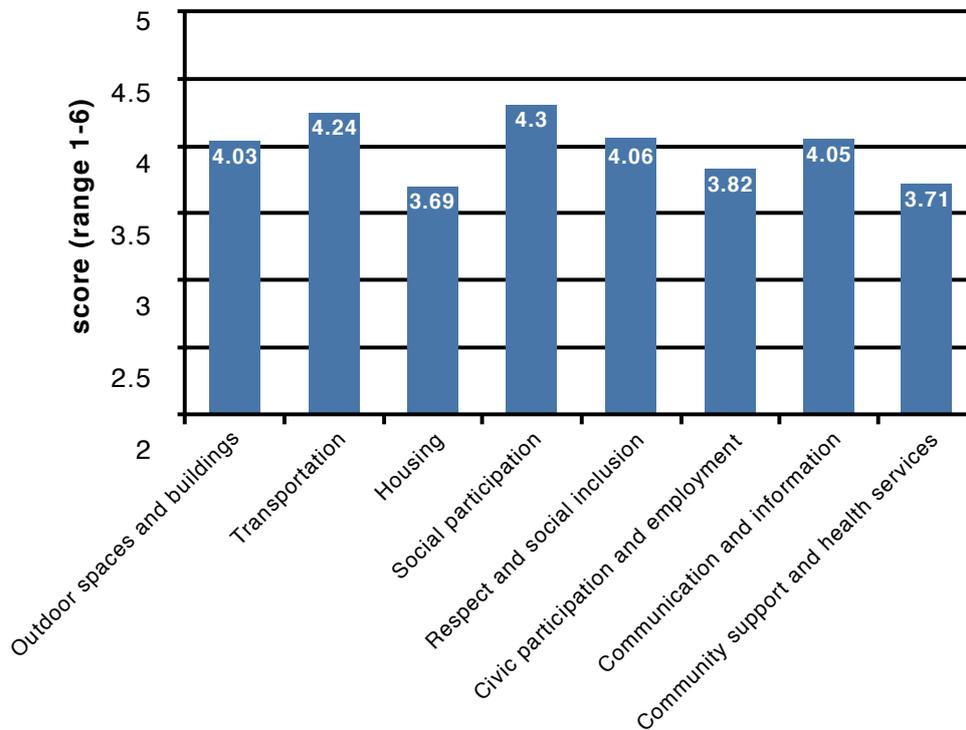
## **4.2.2 WHO framework-based initiatives**

### **4.2.2.1 Studies by HKCSS**

The WHO framework of the eight domains of age-friendliness is widely adopted in the studies of age-friendliness in Hong Kong. For example, the HKCSS has conducted a focus group study from September 2010 to February 2011 (Chan, Lou, & Ko, 2016) where participants comprising representatives of older people, NGOs, private sector, think tanks, government officials and academics shared their views on the age-friendliness of WHO's eight domains in Hong Kong. The focus group interviews revealed that participants were satisfied with the transportation and health services in Hong Kong. However, the "outdoor spaces and buildings" and "housing" domains were highlighted to be areas of improvement. Moreover, the social environment of Hong Kong, such as respect and social inclusion, was found unsatisfactory among participants who commented that social awareness of respect and intergenerational interactions were lacking in Hong Kong.

### **4.2.2.2 Cross-district analysis of eight pilot districts in the Jockey Club Age-friendly City Project**

As the first phase of the Jockey Club Age-friendly City project, a baseline assessment of age-friendliness based on the WHO eight domains has been conducted in eight districts (i.e. Sha Tin, Tai Po, Central and Western District, Wan Chai, Islands, Tsuen Wan, Kowloon City and Kwun Tong) in 2015. The baseline assessment used both quantitative and qualitative approaches. For the quantitative part, a 53-item questionnaire based on the WHO's checklist of age-friendly cities (2007) was designed. Participants were asked to rate items on a 6-point Likert scale, ranging from 1 (strongly disagree) to 6 (strongly agree) to indicate the degree of perceived age-friendliness in the district they resided. A total of 4,274 participants with varying demographic profile were interviewed. The average scores of the eight domains are shown in Figure 4.1. Results showed that the domain of social participation was rated the highest, while the domain of housing was the lowest.



### WHO age-friendliness domains

Figure 4.1 Mean scores of WHO 8-domain age-friendliness in Hong Kong based on eight pilot districts of the Jockey Club Age-friendly City project

Source: CUHK Jockey Club Institute of Ageing

The qualitative part consists of focus group interviews which invite in-depth views on advantages and barriers of the community on the eight domains of age-friendliness in participants' residing district. Suggestions for improving age-friendliness in these districts were raised in the focus group interviews. For example, regarding the domain of community support and health services being one of the poor performing age-friendly domains in Hong Kong, focus group participants aged 70 or above agreed that Elderly Health Care Vouchers Scheme make health and medical services more affordable. However, participants aged 60 to 69 mentioned that medical care were quite costly since they were not yet eligible for the voucher scheme. One 65-year-old elder living in Shatin said, "We wish to suggest the government to lower the eligible age for medical vouchers from aged 70 years to 65 years. At present, none of us aged 65 to 69 can enjoy the medical services." Similar comments were found in other focus group interviews. The Policy Address 2017 proposes lowering the eligible age for the Elderly Health Care Vouchers to 65 and it is expected that more older people can enjoy affordable primary care services.

### **4.3 Age-friendly physical and social environment in Hong Kong**

As discussed in Chapter 1, both physical (indoor and outdoor) and social environment are indispensable components of an age-friendly city. A comprehensive discussion of age-friendliness of a place needs to take into account of citizens' view, local policies and initiatives, and also scientific researches on the micro aspects such as their home and macro aspects such as the urban planning of their city. In a modern cosmopolitan city such as Hong Kong, the characteristics landscape and living conditions of the city define its own age-friendliness.

#### **4.3.1 Physical environment**

##### **4.3.1.1 Indoor environment**



Accommodations for older people should be affordable and, most importantly, cater for their daily needs. Currently, several housing schemes targeting older people are offered by the Housing Authority. For example, the Housing for Senior Citizens Scheme was introduced to provide older people with self-contained flats with 24-hour warden service. Several schemes (e.g. Single Elderly Persons Priority Scheme) are also available in which applications for public housing are prioritized or entitled special allocation arrangements. In newly built public housing estates, the Housing Authority has also adopted the concept of universal design which satisfies the changing needs of users at different ages (including older people). Besides, the Housing Society initiated housing schemes for more financially-able older people in Hong Kong. The Senior Citizen Residence Scheme targets middle-income older people and provides life-long rental with community support, recreational, and medical services. The Tanner Hill project under the Joyous Living Scheme is available for high-income older people. In promoting age-friendly accommodations, the Housing Society has set up the Elderly Resources Center in Yau Ma Tei with an age-friendly housing showroom featuring elder-friendly furniture and housing appliances.

Understandably, an affordable, barrier-free, and comfortable living environment is highly regarded by older people in Hong Kong. As cited above, housing is perceived to be one of the worst performing domains of age-friendliness in Hong Kong. Apart from external environment, continual improvement in indoor environment, possibly via modifications of the living environment on a subsidized basis (especially for older people living in private housing), could be a direction to enhance the living experiences of older people.



### 4.3.1.2 Outdoor environment

#### Climate and weather

Climate and weather are precondition elements of building an age-friendly environment (Fitzgerald, & Caro, 2014). The effect of climate and weather on older people's health has been widely documented. Older people are more vulnerable to weather stress. In Hong Kong, seasonal variations in disease incidence and mortality have been observed in older people in Hong Kong (Yan, 2000). Under the influence of global warming, more extreme weather is expected to directly affect local older people's health. In particular, extreme temperatures have been found to be related to mortality (Chan, Goggins, Kim, & Griffiths, 2010) and hospital admissions due to hemorrhagic stroke (Goggins, Woo, Ho, Chan, & Chau, 2012). Indeed, Hong Kong ranked top among Asian cities with highest natural disaster risk (ARCADIS, 2015) where flood and storms are quite prevalent in Hong Kong. A recent study by Chan, Yue, Lee, and Wang (2016) found that disaster awareness and preparedness of Hong Kong people is quite low. As older people are more vulnerable to disasters, disaster preparedness is crucial to their survival and recovery from disasters. To highlight the importance of disaster preparedness of older people, emergency preparedness and resilience has been incorporated as one of the age-friendly domains in Washington. Similarly, initiatives targeting older people's disaster awareness and preparedness in older people in Hong Kong should be implemented (see Box 4.2 for discussion of disaster preparedness in older people in Hong Kong).

### Box 4.2 Disaster preparedness of older people in Hong Kong

Older people are more vulnerable to disasters, as they usually have sensory impairments and reduced mobility. In Hong Kong, the disaster preparedness of older people is found inadequate. Loke, Lai, and Fung (2012) interviewed 1137 older people about their views on disaster preparedness. Disasters perceived as most likely to occur in Hong Kong among older people were major transport accidents (54.3%), fires (47.9%) and storms/flooding (41.5%). The study found that only 22.4% of the respondents could be classified as being prepared for disasters, which includes preparation of survival items (for example radio with batteries and first aid kit) at home and preparation of all family members for disaster situations (for example identifying escape route). In particular, those who were born in Hong Kong, living with others, having neighbors to count on for help and perceiving the ability to help themselves are more likely to be prepared for disasters.

Policymakers and healthcare professionals need to identify older people who are more vulnerable to disasters. The Social Vulnerability Index (SVI) (Chau, Gusmano, Cheng, Cheung, & Woo, 2014) can be used to assess the disaster vulnerability of older people at the neighborhood level. The SVI assesses disaster vulnerability of the neighborhoods with seven domains including older population size and their features (i.e. poverty, institutionalization, living alone, disability, communication obstacle, and access to primary care). A huge variation in disaster vulnerability assessed with SVI was observed among constituency areas in Hong Kong, from highest in Sha Ta (North district) and lowest in Chung On (Shatin district). The SVI reveals the geographical distribution of disaster vulnerability of older people and forms basis for resource allocation and strategy development for disaster preparedness of older people.

#### Transportation

The transportation system in Hong Kong is reputable for its efficiency and accessibility. The performance was ranked the top among 84 cities in the Urban Mobility Index 2.0 (Arthur D. Little, & The International Association of Public Transportation, 2014). The excellence of Hong Kong transportation network is supported with its rail-based system supplemented by franchised buses, minibus, taxis and ferries. The efficient transportation system in Hong Kong increases mobility of its older people, maintaining their physical activity levels and also overall well-being.

A telephone survey (Hong Kong Elderly Well-being Survey 2016) by the CUHK Jockey Club Institute of Ageing in 2016 successfully interviewed 773 respondents aged 60 or above and found that 85.85% of them feel satisfied or very satisfied with the public



transportation in Hong Kong. The high satisfaction level of the transportation system in Hong Kong is consistent with the findings in the AgeWatch Index for Hong Kong and the baseline assessment of the Jockey Club Age-friendly City Project. Several factors may contribute to the result. The Government Public Transport Fare Concession Scheme for the Elderly and Eligible Persons with Disabilities, which was launched in 2012, enables older people to travel on the railways, franchised buses and ferries at a concessionary fare of HKD2 per trip. A study by Cheung (2016) confirmed that the scheme encouraged travel and increased social participation and social connections among older people. Besides, priority seats for older people have been assigned in railways and buses which make their travelling more comfortable. However, voices of improving age-friendliness of public transport stops and stations (such as installation of lifts and shelters) have been raised in focus group studies cited above. Another area that should be addressed is provision of adequate and affordable specialized transport services for frail or disabled older people.

### **Public and outdoor space**

The quality of public space is also a crucial component of the outdoor environment. A safe and walkable environment keeps older people active and brings benefits to their well-being. For older people in particular, a walkable environment for older people should include diverse land use, accessible facilities and services, highly connected streets, barrier-free and comfortable walkways and safety (Cerin et al., 2010). A survey by Hung, Manandhar, and Ranasinghe (2015) revealed that residential and commercial areas in Hong Kong had higher availability of walking paths, less obstruction and more security from crime. In contrast, industrial areas in Hong Kong performed poorly on these indicators. Recently, a study by Civic Exchange (2016), an independent Hong Kong-based public policy think tank, examined the walkability of four Hong Kong districts (i.e. Choi Hung, Kwun Tong, Mongkok and Central). Choi Hung performed the best among the four districts and was observed to be well-planned with connected and accessible sidewalks, clear signage and pedestrian-friendly facilities. Central performed average in walkability, followed by Mongkok and Kwun Tong performed the worst. The above studies pinpointed a wide variation in walkability in Hong Kong and further improvement in walkability is needed in some districts. Commitment to enhancing Hong Kong's walkability is highlighted in Policy Address 2017.

The “Hong Kong Government Universal Accessibility Programme”, introduced in 2012, aims at facilitating access to public walkways to create a community with universal urban design for older people to walk around with greater ease. The significance of strategic planning for an age-friendly Hong Kong is also addressed in the “Hong Kong 2030+:

Towards a Planning Vision and Strategy Transcending 2030”, a study to update the territorial development strategy which focuses on city planning, land and infrastructure development, and the shaping of the built and natural environment of Hong Kong beyond 2030. Barrier-free access tailor-made for the older people should be widely adopted in design of the streets and pedestrian facilities including walkways, ramps, staircases and pedestrian crossings, and even public toilets to improve the experiences of using public spaces in Hong Kong.

### 4.3.2 Social environment



Apart from the physical environment, the social environment should not be ignored in consideration of an age-friendly environment for older people in Hong Kong. Researchers have identified social connections and social participant as crucial components of ageing well in older people in Hong Kong. For example, Cheng, Chan & Phillips (2004) identified 13 indicators of quality of life of older people in Hong Kong. Some indicators illustrate the critical elements in their social environment, including family relations, intergenerational relations, friendship, companionship and social participation are more related to the social environment. Similarly, descriptions of social environment such as maintaining active engagement with activities or with the society, feeling supported by their family and friends, and living in a place with emotional ties were mentioned by Hong Kong older people as criteria of positive ageing (Chong, Ng, Woo, & Kwan, 2006). Among different types of social networks, social support by family is in particular beneficial to the well-being of older people in Hong Kong (Cheng, Lee, Chan, Leung, & Lee, 2009). These findings highlighted the importance of cultivating a supportive social environment, which covers family, neighborhood, community and the whole city, to promote the well-being of older people.

The social environment of Hong Kong faces several challenges, as suggested by several observations. First, trends of decrease in household size (C&SD, HKSAR, 2013a) and increase in older people living alone (C&SD, HKSAR, 2013b) were recorded in the past decades. These changes in living arrangement might bring adverse impacts on social connections (in particular contact with family members) of older people since the frequency and time of contact may reduce. Second, perceived social support is low among Hong Kong older people. Hong Kong Elderly Well-being Survey 2016 found that 21.97% respondents aged 60 or above reported no perceived support from family and friends. While only 13.97% of the respondents reported having many family members and friends to rely on when they need help, 64.05% of the respondents reported having few or some. It also echoed with the low international ranking of the indicator of social connection in Global AgeWatch Index 2015 (i.e. 57 out of 97 countries or territories). Chan and Lee (2006) also found that older people had a smaller social network



compared with their counterparts in Beijing. Third, focus group studies revealed similar concerns and barriers in the social environment, such as poor accessibility of events and activities, incidents of lack of respect to older people, and limited job opportunities for older people (Chan Lou, & Ko, 2016; JCAFC project). The above observations hint that Hong Kong may not be social inclusive to older people.

Over the years, various parties have initiated programs to improve the social environment for the older people. Initiatives helping older people build up meaningful social connections have been implemented. For example, the Labour and Welfare Bureau and the Elderly Commission jointly launched the “Neighbourhood Active-Ageing Project” to develop community support networks and encourage older people to participate in community affairs. Besides, the CADENZA Community project: Linkage, jointly launched by the CADENZA and the Aberdeen Kai-Fong Welfare Association, created opportunities of intergenerational learning and communications via conducting cross-generation art and culture programmes. In addition, capability and experience of older people are also recognized in providing learning and job opportunities to them. Organized by the Elderly Commission and the Labour and Welfare Bureau, the Elder Academy Scheme offered courses to older people to encourage them to achieve lifelong learning. Training and job matching platforms are also available (e.g. CADENZA Community project: Elder-Friendly Employment Practice project) to encourage older people to rejoin the workforce after retirement. On top of the physical environment, the significance of a harmonious and cohesive social environment should also be emphasized to help older people achieve active and healthy ageing in Hong Kong. Gathering older people through older people associations (OPAs) is also an alternative and powerful way to elicit mutual supports and generate cohesion among older people (see Box 4.3 for older people associations).

### Box 4.3 Older people’s associations in Hong Kong

Older people’s associations (OPAs) can be an alternative source of social connections beyond family, friends, and neighborhood. OPA is a community-based organization of older people working together to improve the living conditions of older people and to develop their communities (HelpAge, 2009). OPAs recognize and capitalize the valuable skills and resources older people have, providing comprehensive social support and promoting tailor-made activities and services to them. Not only expanding older people’s social connection, OPAs also enhance their autonomy and increase their visibility in the society as active members. OPAs engage in a wide range of activities (see Figure 4.2). Over the world, OPAs helped alleviate poverty in older people, raise disaster awareness, promote health ageing and social and political participation. The American Association of Retired Persons (AARP) is one of the largest OPAs in the world.

The CUHK Jockey Club Institute of Ageing initiated the Network of Ageing Well for All (NAWA), which is a non-NGO based OPA. It aims to foster older people from different strata in Hong Kong in building an age-friendly city here. It also maintains older people’s active role in lifelong learning, volunteering and employment, and empowers older people to have a strong voice about their needs. For more information, please visit: <http://www.ioa.cuhk.edu.hk/en-gb/nawa>.

#### Multifunctional Associations

OPAs address many interrelated topics, with activities adapted to the local context

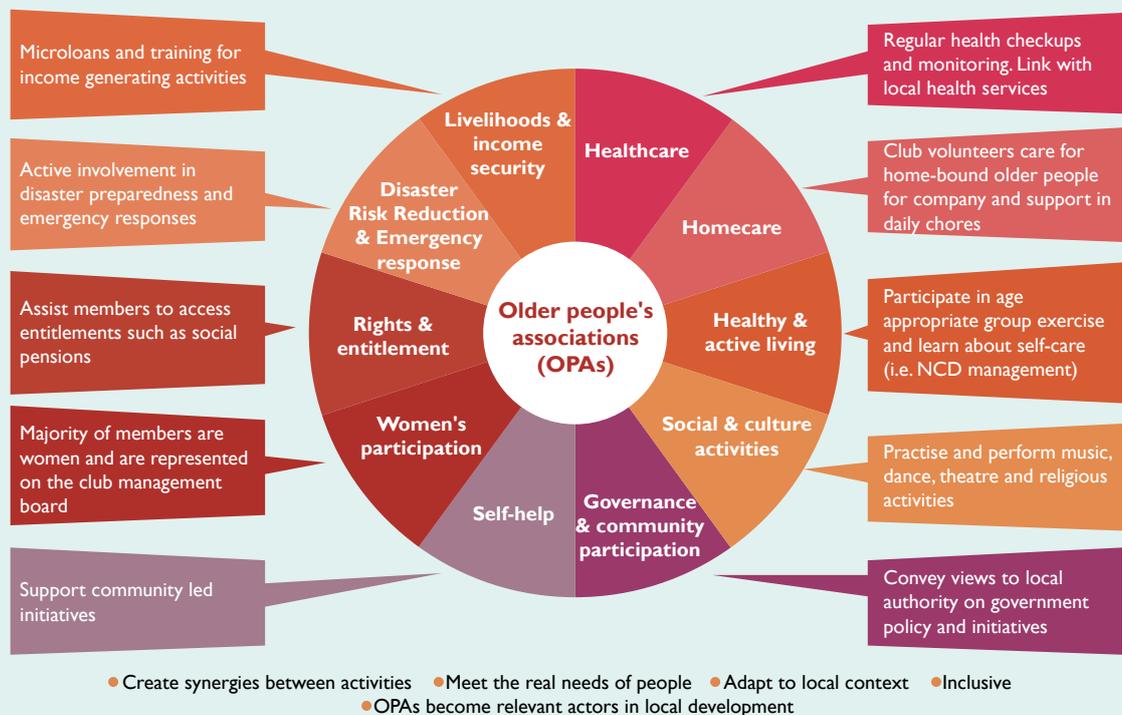


Figure 4.2 Functions of OPAs

Source: HelpAge International (2015b)



# Chapter 5



## Chapter 5

### Way Forward: The Future of Hong Kong as an Age-friendly City

Various parties are stepping up their effort in creating an enabling environment for older people in Hong Kong. It is expected that the improvement of age-friendliness of Hong Kong will be in pace with its ageing population. We foresee that the improvement in age-friendliness of Hong Kong will follow the following directions:

#### **5.1 Evidence-based age-friendly programme and initiatives**

Research plays a pivotal role in age-friendly programmes and initiatives. Collaboration with research bodies or universities has been a crucial component of the success of age-friendly initiatives (Plouffe & Kalache 2011). Research findings reveal areas of performance on various aspects of age-friendliness where future programmes should tackle. Some of these examples include The AgeWatch Index for Hong Kong and baseline assessment of the Jockey Club Age-friendly City Project. Also, research collaboration facilitates establishment of scientific evaluation frameworks which can demonstrate the impact of age-friendly initiatives (Glicksman et al., 2014). Working with researcher in designing and implementing age-friendliness practices will be more common in Hong Kong.

#### **5.2 An integrated approach in achieving age-friendliness**

Creating an age-friendly city requires a multi-sector and cross-disciplinary approach. A bottom-up approach invites older people's participation and consultation throughout every stage of age-friendly initiatives. It facilitates a collaborative process that engages a range of stakeholders, including older people, across multiple disciplines. On the other hand, the government plays a leadership role in creating an age friendly policy framework and in coordinating the activities of a variety of stakeholders (e.g. Alley et al., 2007; Buffel et al., 2014). The government is pivotal because of its direct influence in urban planning, economic development and coordination of health and social care services (Lui et al., 2009) and its responsibility for regulation, monitoring and coordination of services and infrastructure within communities (Everingham et al., 2010). With joint efforts of the government, district councils, universities, NGOs and older people, an integrated approach to building up age-friendly Hong Kong is plausible.



### **5.3 A balanced emphasis of physical and social aspects of the enabling environment**

An enabling environment consists of both physical and social environments. Findings from the AgeWatch Index for Hong Kong and baseline assessment of the Jockey Club Age-friendly City project revealed a relatively poorer performance in social aspects of the enabling environment in Hong Kong. The social environment is often neglected when planning for an age-friendly environment to achieve active ageing and ageing well. In particular, strengthening social connections, encouraging post-retirement employment, arousing awareness of older people's psychological well-being and empowering older people in the community are several key areas to strike towards. Besides further enhancement in the physical environment, the social environment should be addressed in future age-friendly initiatives. As conceptualized in the Global AgeWatch Index, the enabling environment is one of the important determinants of well-being of older people. Based on the findings in the AgeWatch Index for Hong Kong and other similar endeavors, it is hoped that Hong Kong will become a more age-friendly city for its older people to age well.

# References

- AARP. (2003). *These four walls: Americans 45+ talk about home and community*. Retrieve from [http://assets.aarp.org/rgcenter/il/four\\_walls.pdf](http://assets.aarp.org/rgcenter/il/four_walls.pdf)
- Akita City Hall Health and Welfare Department. (2013). *Toward an age-friendly Akita City-Akita City Age-friendly City Action plan (Summary)*. Retrieved from <https://extranet.who.int/agefriendlyworld/wp-content/uploads/2015/10/Akita-City-Age-Friendly-City-Action-Plan-Summary-20131.pdf>
- Alley, D., Liebig, P., Pynoos, J., Banerjee, T., & Choi, I. H. (2007). Creating elder-friendly communities. *Journal of Gerontological Social Work*, 49(1-2), 1-18.
- Alzheimer's Society. (2013). *Building Dementia-Friendly Communities: A Priority for Everyone*. Retrieved from <https://www.alzheimers.org.uk/site/scripts/download.php?type=downloads&fileID=1916>
- ARCADIS. (2015). Hong Kong Natural Disaster Risk. Retrieved from <https://www.arcadis.com/de/switzerland/news/news/2015/5/hong-kong-natural-disaster-risk/>
- Arthur D. Little, & The International Association of Public Transportation. (2014). *Future of Urban Mobility 2.0*. Retrieved from [http://www.adlittle.com/downloads/tx\\_adlreports/Arthur\\_D.\\_Little\\_\\_\\_UITP\\_Future\\_of\\_Urban\\_Mobility\\_2\\_0.pdf](http://www.adlittle.com/downloads/tx_adlreports/Arthur_D._Little___UITP_Future_of_Urban_Mobility_2_0.pdf)
- Australian Bureau of Statistics. (2013). *Population Projections, Australia, 2012 (base) to 2101: Summary*. Retrieved from <http://www.abs.gov.au/ausstats/abs@.nsf/0/1CD2B1952AFC5E7ACA257298000F2E76?OpenDocument>
- Avlund, K., Lund, R., Holstein, B. E., & Due, P. (2004). Social relations as determinant of onset of disability in aging. *Archives of gerontology and geriatrics*, 38(1), 85-99.
- Balfour, J. L., & Kaplan, G. A. (2002). Neighborhood environment and loss of physical function in older adults: Evidence from the Alameda County study. *American Journal of Epidemiology*, 155(6), 507-515.
- Beard, J. R., & Petitot, C. (2010). Ageing and urbanization: Can cities be designed to foaster active ageing? *Public Health Reviews*, 32, 427-450.
- Berke, E. M., Gottlieb, L. M., Moudon, A. V., & Larson, E. B. (2007). Protective associatinn between neighborhood walkability and depression in older men. *Journal of American Geriatric Society*, 55, 526-533.
- Berke, E. M., Koepsell, T. D., Moudon, A. V., Hoskins, R. E., & Larson, E. B. (2007). Association of the build environment with physical activity and obesity in older persons. *American Journal of Public Health*, 97(3), 486-492.
- Berkman, L. F., Glass, T., Brissette, I., & Seeman, T. E. (2000). From social integration to health: Durkheim in the new millennium. *Social science & medicine*, 51(6), 843-857.
- Boggatz, T. (2016). Quality of life in old age- a concept analysis. *International Journal of OlderPeople Nursing*, 11, 55-69.
- Booth, M. L., Owen, N., Bauman, A., Clavisi, O., & Leslie, E. (2000). Social-cognitive and perceived environment influences associated with physical activity in older Australians. *Preventive Medicine*, 31, 15-22.
- Bowling, A. (2009). The psychometric properties of the older people's quality of life questionnaire, compared with the CASP-19 and the WHOQOL-OLD. *Current Gerontology and Geriatrics Research*, 2009, Article ID 298950, 12 pages. doi: 10.1155/2009/298950.
- Bowling, A., Barber, J., Morris, R., & Ebrahim, S. (2006). Do perceptions of neighbourhood environment influence health? Baseline findings from a British survey of aging. *Journal of Epidemiology & Community Health*, 60, 476-483.
- Brink, S. (1998). Overview: The Greying of Our Communities Worldwide. In S. Brink (ed.), *Housing Older People: An international perspective* (pp. 5-20). US: Transaction.
- Buffel, T., McGarry, P., Phillipson, C., De Donder, L., Dury, S., De Witte, N., ... & Verté, D. (2014). Developing age-friendly cities: Case studies from Brussels and Manchester and implications for policy and practice. *Journal of Aging & Social Policy*, 26(1-2), 52-72.
- Cabinet Report, Japan. (2015). *Annual Report on the Aging Society 2015*. Retrieved from [http://www8.cao.go.jp/kourei/english/annualreport/2015/2015pdf\\_e.html](http://www8.cao.go.jp/kourei/english/annualreport/2015/2015pdf_e.html)



- Cagney, K. A., Browning, C. R., & Wen, M. (2005). Racial disparities in self-rated health at older ages: What difference does the neighborhood make? *Journal of Gerontology: Social Science*, *60*(4), S181-S190.
- Census and Statistics Department, HKSAR. (2013a). *The Profile of the Population in One-person Households, 2011*. Retrieved from [http://www.census2011.gov.hk/pdf/Feature\\_articles/one-person-hh.pdf](http://www.census2011.gov.hk/pdf/Feature_articles/one-person-hh.pdf)
- Census and Statistics Department, HKSAR. (2013b). *2011 Population Census- Thematic Report: Older Persons*. Retrieved from <http://www.census2011.gov.hk/pdf/older-persons.pdf>
- Census and Statistic Department, HKSAR Government. (2015). *Hong Kong Population Projection: 2015-2064*. Retrieved from <http://www.statistics.gov.hk/pub/B1120015062015XXXXB0100.pdf>
- Cerin, E., Sit, C. H., Cheung, M. C., Ho, S. Y., Lee, L. C. J., & Chan, W. M. (2010). Reliable and valid NEWS for Chinese seniors: measuring perceived neighborhood attributes related to walking. *International Journal of Behavioral Nutrition and Physical Activity*, *7*(1), 1.
- Chan, A. C. M., Phillips, D. R., Cheng, S. T., Chi, I., & Ho, S. S. Y. (2004). Constructing a quality of life scale for older Chinese people in Hong Kong (HKQoLOCP). *Social Indicators Research*, *69*, 279–301.
- Chan, E. Y. Y., Goggins, W. B., Kim, J. J., & Griffiths, S. M. (2012). A study of intracity variation of temperature-related mortality and socioeconomic status among the Chinese population in Hong Kong. *Journal of epidemiology and community health*, *66*(4), 322-327
- Chan, E. Y., Yue, J., Lee, P., & Wang, S. S. (2016). Socio-demographic Predictors for Urban Community Disaster Health Risk Perception and Household Based Preparedness in a Chinese Urban City. *PLOS Currents Disasters*.
- Chan, G. M., Lou, V. W., & Ko, L. S. (2016). Age-Friendly Hong Kong. In *Age-Friendly Cities and Communities in International Comparison* (pp. 121-151). Springer International Publishing.
- Chan, Y. K., & Lee, R. P. (2006). Network size, social support and happiness in later life: A comparative study of Beijing and Hong Kong. *Journal of Happiness Studies*, *7*(1), 87-112.
- Chapman, N. J., & Howe, D. A. (2001). Accessory apartments: are they a realistic alternative for ageing in place? *Housing Studies*, *16*, 637–650.
- Chase, C. A., Mann, K., Wasek, S., & Arbesman, M. (2012). Systematic review of the effect of home modification and fall prevention programs on falls and the performance of community-dwelling older adults. *American Journal of Occupational Therapy*, *66*(3), 284-291.
- Chau, P. H., Gusmano, M. K., Cheng, J. O., Cheung, S. H., & Woo, J. (2014). Social Vulnerability Index for the Older People—Hong Kong and New York City as Examples. *Journal of Urban Health*, *91*(6), 1048-1064.
- Cheng, S. T., Chan, A., & Phillips, D. R. (2004). Quality of life in old age: An investigation of well older persons in Hong Kong. *Journal of Community Psychology*, *32*(3), 309-326.
- Cheng, S. T., Lee, C. K., Chan, A. C., Leung, E. M., & Lee, J. J. (2009). Social network types and subjective well-being in Chinese older adults. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, gbp075.
- Cheung, P. Y. A. (2016). Constructing a Stated Preference Instrument for Elderly in Hong Kong: A case study on “Government Public Transport Fare Concession Scheme for the Elderly and Eligible Persons with Disabilities”. Retrieved from <http://www.apss.polyu.edu.hk/icsea2016/new-measurement-methods/>
- Chong, A. M. L., Ng, S. H., Woo, J., & Kwan, A. Y. H. (2006). Positive ageing: the views of middle-aged and older adults in Hong Kong. *Ageing and society*, *26*(02), 243-265.
- City of Unley, Australia. (2015). Active Ageing Strategy. Retrieved from <http://www.unley.sa.gov.au/CityOfUnley/media/CoU-Media-Library/community%20and%20culture/Active-Ageing-Strategy-Final-web.pdf>
- Civic Exchange. (2016). *Measuring and improving walkability in Hong Kong: Introduction of CEx WalkScore- An Assessment Tool*. Retrieved from [http://www.civic-exchange.org/materials/publicationmanagement/files/20161212URBAN\\_Walk2report.pdf](http://www.civic-exchange.org/materials/publicationmanagement/files/20161212URBAN_Walk2report.pdf)
- Clemson, L., Mackenzie, L., Ballinger, C., Close, J. C., & Cumming, R. G. (2008). Environmental interventions to prevent falls in community-dwelling older people: a meta-analysis of randomized trials. *Journal of Aging and Health*, *20*(8), 954-971.

- Cramm, J. M., & Nieboer, A. P. (2013). Relationships between frailty, neighborhood security, social cohesion and sense of belonging among community-dwelling older people. *Geriatrics and Gerontology International*, *13*(3), 759-763.
- CUHK Jockey Club Institute of Ageing. (2017). *Report on AgeWatch Index for Hong Kong 2015*. Hong Kong: The Hong Kong Jockey Club.
- Everingham, J. A., Lui, C.-W., Bartlett, H., Warburton, J. & Cuthill, M. (2010). Rhetoric to Action: A Study of Stakeholder Perceptions of Aging Well in Two Local Communities. *Journal of Gerontological Social Work*, Vol. 53, pp. 760-775.
- Federal, Provincial, and Territorial Ministers Responsible for Seniors, Canada. (2006). *Health Ageing: A New Vision, A Vital Investment*. [http://www.swsd.gov.nl.ca/publications/pdf/seniors/vision\\_rpt\\_e.pdf](http://www.swsd.gov.nl.ca/publications/pdf/seniors/vision_rpt_e.pdf)
- Finlay, J., Franke, T., McKay, H., & Sims-Gould, J. (2015). Therapeutic landscapes and wellbeing in later life: Impacts of blue and green spaces for older adults. *Health & Place*, *34*, 97-106.
- Fitzgerald, K. G., & Caro, F. G. (2014). An overview of age-friendly cities and communities around the world. *Journal of Aging & Social Policy*, *26*(1-2), 1-18.
- Gale, C. R., Dennison, E. M., Cooper, C., & Sayer, A. A. (2011). Neighbourhood environment and positive mental health in older people: The Hertfordshire cohort study. *Health & Place*, *17*, 867-874.
- Glass, T. A., & Balfour, J. L. (2003). Neighborhoods, aging, and functional limitations. In I. Kawachi and L. Berkman (Eds.), *Neighborhoods and Health* (pp. 303-334). New York, NY: Oxford University Press.
- Glicksman, A., Clark, K., Kleban, M. H., Ring, L. & Hoffman, C. (2014). Building an Integrated Research/Policy Planning Age-Friendly Agenda. *Journal of Aging & Social Policy*, Vol. 26, pp. 131-146.
- Goggins, W. B., Woo, J., Ho, S., Chan, E. Y., & Chau, P. H. (2012). Weather, season, and daily stroke admissions in Hong Kong. *International Journal of Biometeorology*, *56*(5), 865-872.
- Greenfield, E. A., Scharlach, A., Lehning, A. J., & Davitt, J. K. (2012). A conceptual frame work for examining the promise of the NORC program and Village models to promote aging in place. *Journal of Aging Studies*, *26*, 273-284.
- Health Canada. (2006). *Healthy Aging in Canada: A New Vision, A Vital Investment From Evidence to Action*. Retrieved from [http://www.swsd.gov.nl.ca/publications/pdf/seniors/vision\\_rpt\\_e.pdf](http://www.swsd.gov.nl.ca/publications/pdf/seniors/vision_rpt_e.pdf)
- HelpAge International. (2009). *Older people in community development: The role of older people's associations (OPAs) in enhancing local development*. Retrieved from <http://www.helpage.org/silo/files/older-people-in-community-development-the-role-of-older-peoples-associations-opas-in-enhancing-local-development.pdf>
- HelpAge International. (2013). *Global AgeWatch Index 2013: Purpose, methodology and results*. Retrieved from <http://www.helpage.org/silo/files/global-agewatch-index-2013-purpose-methodology-and-results.pdf>
- HelpAge International (2015a). *Global AgeWatch Index 2015: Insight Report*. Retrieved from <http://www.helpage.org/download/563caf64d0b45>
- HelpAge International. (2015b). Older people's associations in East Asia-Pacific poster. Retrieved from: <http://www.helpage.org/silo/files/older-peoples-associations-in-east-asiapacific-poster.jpg>
- Heumann, L., & Bold, D. (1993). *Ageing in place with dignity: International Solutions to the low-income and frail older people*. London: Praeger.
- Hung, W. T., Manandhar, A., & Ranasinghe, R. S. A. (2010). A walkability survey in Hong Kong.
- Inoue, S., Yorifuji, T., Takao, S., Doi, H., & Kawachi, I. (2013). Social cohesion and mortality: a survival analysis of older adults in Japan. *American Journal of Public Health*, *103*(12), e60-66.
- Kawachi, I., & Berkman, L. F. (2001). Social ties and mental health. *Journal of Urban Health: Bulletin of the New York Academy of Medicine*, *78*(30), 458-467.
- Kawachi, I., Kennedy, B.P., Lochner, K., Prothrow-Stith, D. (1997). Social capital, income inequality and mortality. *American Journal of Public Health*, *87*, 1491-1498.
- Keenan, T. A. (2010). *Home and community preferences of the 45+ population*. Washington, DC: AARP.
- Kendig, H., & Browning, C. (2010). A social view on healthy ageing: Multidisciplinary perspectives and Australian evidence. *Handbook on Social Gerontology*. London: Sage Publications, 459-72.



- King, W. C., Belle, S. H., Brach, J. S., Simkin-Silverman, L. R., Soska, T., & Kriska, A. M. (2005). Objective measures of neighbourhood environment and physical activity in older women. *American Journal of Preventive Medicine*, *28*(5), 461-469.
- Krause, N. (2004). *Neighbourhoods, health, and well-being in later life*. In H. W. Wahl, R. Scheidt & P. Windley (eds.), *Aging in Context: Socio-physical Environments* (pp. 223-49). New York: Springer.
- Lawton, M. P. (1986). *Environment and aging*. In *Classics in Aging Reprinted Series I (Vol 1)*. New York: Center for Study of Aging.
- Lawton, M. P., & Nahemow, L. (1973). Ecology and the aging process. In C. Eisdorfer & M. P. Lawton (Eds.), *Psychology of adult development*. Washington, DC: American Psychological Association.
- Letts., L., Moreland, J., Richardson, J., Coman, L., Edwards, M., Ginis, K., M., . . . Wishart, L. (2010). The physical environment as a fall risk factor in older adults: Systematic review and meta-analysis of cross-sectional and cohort studies. *Australian Occupational Therapy*, *57*, 51-64
- Li, F., & Fisher, K.J. (2004). A multilevel path analysis of the relationship between neighborhood physical activity and self-rated health status in older adults. *Journal of Physical Activity and Health*, *1*, 398-412.
- Lindstrom, M., Hanson, B. S., Ostergren, P. O. (2001). Socioeconomic differences in leisure-time physical activity: The role of social participation and social capital in shaping health related behaviour. *Social Science & Medicine*, *52*, 441-451.
- Liu, Y., Perez-Padilla, R., Hudson, N. L., Mannino, D. M. (2008). Outdoor and indoor air pollution and COPD-related diseases in high- and low- income countries. *The International Journal of Tuberculosis and Lung Disease*, *12*(2), 115-127.
- Loke, A. Y., Lai, C. K., & Fung, O. W. M. (2012). At-home disaster preparedness of elderly people in Hong Kong. *Geriatrics & gerontology international*, *12*(3), 524-531.
- Lui, C., Everingham, J., Warburton, J., Cuthill, M., & Barlett, H. (2009). What makes a community age-friendly: A review of international literature. *Australasian Journal of Ageing*, *28*(3), 116-121.
- Menec, V. H., Means, R., Keating, N., Parkhurst, G., & Eales, J. (2011). Conceptualizing age-friendly communities. *Canadian Journal on Aging*, *30*, 479-493.
- Municipal Association of Victoria, Victorian Government, & Council on the Ageing Victoria. (2009). *The World Health Organization global age-friendly cities guide and checklist: A review of their use by local government*. Retrieved from <http://www.mav.asn.au/policy-services/social-community/ageing-disability/ageing/Documents/WHO%20global%20age-friendly%20cities%20guide%20and%20checklist%20-%20a%20review%20of%20their%20use%20by%20local%20government.docx>
- New Zealand Ministry of Social Development. (2007). Positive Ageing Indicators 2007. Retrieved from <https://www.msd.govt.nz/documents/about-msd-and-our-work/publications-resources/monitoring/positive-age-indicators/positive-ageing-indicators-2007.pdf>
- Parra, D. C., Gomez, L. F., Sarmiento, O. L., Buchner, D., Brownson, R., Schimid, T., Gomez, V., & Lobelo, F. (2010). Perceived and objective neighborhood environment attributes and health related quality of life among the older people in Bogota, Colombia. *Social Science & Medicine*, *70*(7), 1070-1076.
- Paschoal, S. M. P., Filho, W. J., & Litvoc, J. (2008). Development of Elderly Quality of Life Index-EqoLI: item reduction and distribution into dimensions. *Clinics (Sao Paulo)*, *63*, 179-188.
- Phillipson, C. (2007). The 'elected' and the 'excluded': sociological perspectives on the experience of place and community in old age. *Ageing and Society*, *27*(03), 321-342.
- Plouffe, L. A., & Kalache, A. (2011). Making communities age friendly: State and municipal initiatives in Canada and other countries. *Politics, policy and public health*, *25*(supplement 2), 131-137.
- Plouffe, L. A., Garon, S., Brownoff, J., Eve, D., Foucault, M. L., Lawrence, R., ... & Toews, V. (2012). Advancing age-friendly communities in Canada. *Canadian Review of Social Policy*, (68/69), 24.
- Population Reference Bureau of United States. (2015). *Population Bulletin*, Volume 70, No. 2.
- Public Health Agency of Canada. (2015). *Age-friendly Communities Evaluation Guide: Using Indicators to Measure Progress*. Retrieved from <http://www.phac-aspc.gc.ca/seniors-aines/alt-formats/pdf/indicators-indicateurs-v2-eng.pdf>

- Putnam, R. D. (1995). Bowling alone: America's declining social capital. *Journal of Democracy*, 6(1), 65-78.
- Pynoos, J., & Nishita, C. M. Aging in place. (2007). In S. Carmel, C. A. Morse, & F. M. Torres-Gil (eds.), *Lessons on Aging from Three Nations, Vol I: The Art of Aging Well* (pp.185–198). New York: Baywood.
- Rantakokko, M., Manty, M., Iwarsson, S., Tormakangas, T., Leinonen, R., Heikkinen, E., & Rantanen T. (2009). Fear of moving outdoors and development of outdoor walking difficulty in older people. *Journal of American Geriatric Society*, 57(4), 634–640.
- Raphael, D., Brown, I., Renwick, R., Cava, M., Weir, N., & Heathcote, K. (1995). The quality of life of seniors living in the community: A conceptualization with implications for public health practice. *Canadian Journal of Public Health*, 86, 228–233.
- Rowles, G. D. (1994). Evolving images of place in aging and aging-in- place. In D. Shenk & W. A. Achenbaum (eds), *Changing perceptions of aging and the aged* (pp. 115-125). New York: Springer.
- Sampson, R. J. (2003). The neighborhood context of well-being. *Perspectives in Biology and Medicine*, 46 (supplement 3), S53-64.
- Sampson, R. J., Raudenbush, S. W., & Earls, F. (1997). *Neighborhoods and violent crime: a multilevel study of collective efficacy*. *Science*, 277(5328), 918-924.
- Scharf, T., Phillipson . C., & Smith, A. (2007). Ageing in a difficult place: Accessing the impact of urban deprivation on older people. In H. W. Wahl, C. Tesch-Romer & A Hoff (eds.), *New Dynamics in Old Age: Individual, Environmental and Societal Perspectives* (pp. 153-173).. New York: Baywood publishing.
- Scharlach, A. (2012). Creating aging-friendly communities in the United States. *Ageing International*, 37(1), 25-38.
- Schootman, M., Andresen, E. M., Wolinsky, F. D., Malmstrom, T. K., Miller, J. P, & Miller, D.K. (2006). Neighborhood conditions and risk of incident lower-body functional limitations among middle- aged African Americans. *American Journal of Epidemiology*, 163(5), 450–458.
- Smedley, B. D., & Syme, S. L. (2000). *Promoting Health: Intervention Strategies from Social and Behavioral Sciences*. Washington, DC: The National Academies Press.
- Social Exclusion Unit, Office of the Deputy Prime Minister, United Kingdom. (2006). *A Sure Start to Later Life: Ending Inequalities for Older People*. Retrieved from [http://www.cpa.org.uk/cpa/seu\\_final\\_report.pdf](http://www.cpa.org.uk/cpa/seu_final_report.pdf)
- Statistics Bureau, Japan. (2016). *Future population (2015-2110)*. Retrieved from <http://www.stat.go.jp/data/nenkan/zuhyou/y650202000.xls>
- Statistics Bureau, Japan. (2016). *Population by age (1920-2014)*. Retrieved from <http://www.stat.go.jp/data/nenkan/zuhyou/y650207000.xls>
- Statistics Canada. (2015). *Population projections for Canada (2013 to 2063), Provinces and Territories (2013 to 2038)*. Retrieved from <http://www.statcan.gc.ca/pub/91-520-x/91-520-x2014001-eng.pdf>
- Steels, S. (2015). Key characteristics of age-friendly cities and communities: A review. *Cities*, 47, 45-52.
- Sugisawa, H., Shibata, H., Hougham, G. W., Sugihara, Y. and Liang, J. (2002), The Impact of Social Ties on Depressive Symptoms in U.S. and Japanese Elderly. *Journal of Social Issues*, 58, 785–804.
- Sugiyama, T & Thompson, C. W. (2007). Outdoor environments, activity and the well-being of older people: Conceptualising environmental support. *Environment and Planning A*, 39, 1943-1960.
- Sun, Y., Chao, T. Y., Woo, J., & Au, D. W. (2017). An institutional perspective of “Glocalization” in two Asian tigers: The “Structure– Agent– Strategy” of building an age-friendly city. *Habitat International*, 59, 101-109.
- Sundquist, K., Hamano, T., Li, X., Kawakami, N., Shiwaku, K., Sundquist, J. (2014). Linking social capital and mortality in the elderly: A Swedish national cohort study. *Experimental Gerontology*, 55, 29-36.
- The AdvantAge Initiative. (2002). *What is the AdvantAge Initiative?* Retrieved from <http://www.vnsny.org/advantage/whatis.html>
- The Economist. (25 May, 2014). The incredible shrinking country. Retrieved from <http://www.economist.com/blogs/banyan/2014/03/japans-demography>
- Tomaszewski, W. (2013). Living environment, social participation and wellbeing in older age: The relevance of housing and local area disadvantage. *Journal of Population Ageing*, 6(1-2), 119-156.



- Van Wezemaal, J. E., & Gilroy, R. (2007). The significance of demographic change in the Swiss approach to private rented housing: A potential for ageing in place? *Housing Studies*, 22(4), 597-614.
- Wahl, H. W., & Lang, F. R. (2003). Aging in context across the adult life course: Integrating physical and social environmental research perspectives. *Annual review of gerontology and geriatrics*, 23, 1-33.
- Wahl, H., & Weisman, G. D. (2003). Environmental gerontology at the beginning of the new millennium: Reflections on its historical, empirical, and theoretical development. *The Gerontologist*, 43(5), 616-627.
- WHO. (2007a). *Checklist of Essential Features of Age-friendly Cities*. Retrieved from [http://www.who.int/ageing/publications/Age\\_friendly\\_cities\\_checklist.pdf](http://www.who.int/ageing/publications/Age_friendly_cities_checklist.pdf)
- WHO. (2007b). *Global Age-friendly Cities: A guide*. Geneva: Switzerland. Retrieved from [http://www.who.int/ageing/publications/Global\\_age\\_friendly\\_cities\\_Guide\\_English.pdf](http://www.who.int/ageing/publications/Global_age_friendly_cities_Guide_English.pdf)
- WHO. (2015a). *Draft 1: Global Strategy and Action Plan on Ageing and Health*. Retrieved from <http://www.who.int/entity/ageing/ageing-global-strategy-draft1-en.pdf?ua=1>
- WHO. (2015b). *Measuring the age-friendliness of cities: a guide to using core indicators*. Kobe: Japan. Retrieved from [http://apps.who.int/iris/bitstream/10665/203830/1/9789241509695\\_eng.pdf?ua=1](http://apps.who.int/iris/bitstream/10665/203830/1/9789241509695_eng.pdf?ua=1)
- WHO. (2015c). *World Report on Ageing and Health-Summary*. Retrieved from [http://apps.who.int/iris/bitstream/10665/186468/1/WHO\\_FWC\\_ALC\\_15.01\\_eng.pdf?ua=1](http://apps.who.int/iris/bitstream/10665/186468/1/WHO_FWC_ALC_15.01_eng.pdf?ua=1)
- Winkler, I., Matschinger, H., Angermeyer, M., Skevington, S., & The WHOQOL-OLD Group (2006). Der WHOQOL-OLD: Ein Fragebogen zur interkulturellen Erfassung der Lebensqualita"t im Alter [The WHOQOL-OLD. A Questionnaire for the Intercultural Assessment of Quality of Life in Old Age]. *Psychotherapie Psychosomatik Medizinische Psychologie*, 56 (2), 63-69.
- Woo, J. (ed.) (2013). *Ageing in Hong Kong: A Comparative Perspective*. New York: Springer.
- Yan, Y. Y. (2000). The influence of weather on human mortality in Hong Kong. *Social science & medicine*, 50(3), 419-427.
- Yang, Y. C., Boen, C., Gerken, K., Li, T., Schorpp, K., & Harris, K. M. (2016). Social relationships and physiological determinants of longevity across the human life span. *Proceedings of the National Academy of Sciences of the United States of America*, 113(3), 578-583.
- Yen, I. H., Michael, Y. L., & Perdue, L. (2009). Neighborhood environment in studies of health of older adults- A systematic review. *American Journal of Preventive Medicine*, 37(5), 455-463.







The Chinese University of Hong Kong  
CUHK Jockey Club Institute of Ageing



(852) 3943 9450



[ioa@cuhk.edu.hk](mailto:ioa@cuhk.edu.hk)



<http://www.ioa.cuhk.edu.hk>

ISBN 978-988-13332-5-4



9 789881 333254