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Social differentiation and age-friendly characteristics : a case study in Tuen Mun

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SOCIAL DIFFERENTIATION AND AGE-FRIENDLY CHARACTERISTICS: A CASE STUDY IN TUEN MUN

by

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ABSTRACT

Social Differentiation and Age-friendly Characteristics:
a Case Study in Tuen Mun

by

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Master of Philosophy

Hong Kong is one of Asia's more demographically-aged cities, with 14% of population aged 65+ in 2012, projected to be 23% by 2025. Facilities and transport are generally good by world standards although the urban environment may not consistently be particularly 'age-friendly'. Drawing on a range of urban sub-areas, this research investigated the 'age-friendliness' of Tuen Mun, a 'new town' of half a million population in Hong Kong. This study was also interested in socio-cultural variables and age-friendly cities (AFC) characteristics in its predominantly Chinese population, and relationships with psychological well-being (PWB).

A total of 503 participants aged 50 years or above were interviewed in a face-to-face questionnaire survey in Tuen Mun. Two focus groups were held afterwards as a post facto evaluation to ascertain and explain the findings of the survey. Among the WHO's original eight AFC domains, in this study 'Social participation' scored the highest AFC rating. 'Housing', 'Civic participation and employment', and 'Community support and health services' perhaps surprisingly scored the lowest. Interestingly, the 'higher social group' (i.e. respondents from private housing, with a higher education attainment and household income) tended to be less satisfied with the AFC domains than the lower social group. An important contribution of this study is therefore to show the importance of considering social variations in attitudes to AFC characteristics, as perceptions/expectations of AFC might vary across different social groups. This study also addressed the potential role of AFC characteristics in influencing older persons' PWB. AFC, especially the 'software' aspects related to social support, were found to have the strongest positive correlations with PWB. A newly-proposed 'Food and shopping' dimension appeared to be a salient factor affecting PWB, showing such 'lifestyle' items should be included in AFC in Asian settings. The policy implications and the value of the AFC concept in cities such as Hong Kong are discussed.

DECLARATION

I declare that this is an original work based primarily on my own research, and I warrant that all citations of previous research, published or unpublished, have been duly acknowledged.

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YAU Yuen Ling Elaine

Date:

CERTIFICATE OF APPROVAL OF THESIS

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LIST OF ABBREVIATIONS

AARP	American Association of Retired Persons
ADL	Activities of daily living
AFC	Age-friendly cities
CUHK	The Chinese University of Hong Kong
FG(s)	Focus group(s)
HKSAR	Hong Kong Special Administrative Region
NGO(s)	Non-governmental organization(s)
P-E	Person-Environment
PWB	Psychological well-being
QoL	Quality of life
SES	Socio-economic status
SWB	Subjective well-being
WHO	World Health Organization

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CHAPTER 1 INTRODUCTION

1.1 Background

1.1.1 Hong Kong: an ageing society

It is widely recognized that almost every country in the world is experiencing demographic ageing. According to the United Nations Population Division (2012), there were approximately 810 million people aged 60 years or over in the world in 2012, projected to grow to more than 2 billion by 2050. Hong Kong is one of Asia's more demographically-aged cities, a profile that has arisen fairly quickly, over the last three to four decades. Its proportion of older persons aged 65 and over to the total population was 14% in 2012, and is projected to be 23% by 2025; the fertility rate will continue to be low (Census and Statistics Department, 2012). The life expectancy at birth of 'Hongkongers' increased from 67.8 years for males and 75.3 for females in 1971 to 80.6 years and 86.3 years in 2012 respectively (Census and Statistics Department, 2013). This is amongst the highest life expectancies in the world. Now, many 'Hongkongers' can expect to live well beyond the usual retirement age, into their 70s, 80s and 90s.

While these statistics show how successful Hong Kong's social and economic developments have been in terms of their influence on longevity, such a demographic transformation poses tremendous policy challenges for Hong Kong in the provision of long-term care services and a suitable environment. Following the increase in the proportion of older persons, the elderly dependency ratio (defined as those aged 65 and over per 1 000 persons aged between 15 and 64), rose from 50 in 1961 to 177 in

2011, in which implies that there would be fewer workers to support the care of the older persons (Census and Statistics Department, 2012). Given these demographic facts, a major question has been raised among researchers, policy makers and the public: how can we provide the best support and conditions to meet the needs of an ageing population without placing an undue burden on the younger generation?

1.1.2 The environment matters in 'age-friendliness'

Over the past 40 years or so, there has been increasing and compelling academic research focusing on the importance of local environments in fulfilling the needs of an ageing population (Lawton and Nahemow, 1973; Rowles, 1978; Lawton et al., 1982; Phillips and Yeh, 1999; Andrews and Phillips, 2005). Lawton, a famous environmental gerontologist, noted local environments are of importance in determining well-being and independence particularly of the older persons: 'the vulnerability of this age group makes more compelling the search for ways of elevating behavior and experienced quality of life through environmental means. By this line of reasoning, if we could design housing with fewer barriers, neighbourhoods with more enriching resources, or institutions with higher stimulating qualities, we could improve the level of functioning of many older people more than proportionately' (Lawton, 1986, p. 15). In other words, 'environments can have powerful enabling or disabling impacts on older age where unsupportive environments, such as poor transport, unsafe housing, higher crime rates, etc, can discourage active lifestyle and social participation', as suggested by the House of Lords Science and Technology Committee (2005, p. 53).

Not only academic researchers, but also policy makers and city planners have

showed much concern with the importance of ‘place’, and especially the nature of places in which people grow older. Developing ‘age-friendly’ neighborhoods, responsive to the needs of older dwellers, has become a significant issue for society and governments in recent years. It is based on a principal policy approach seen in many countries: to support ‘ageing in place’ - empowering older persons to live in their own homes or familiar community rather than in institutions or specialized environments for as long as possible (Phillips, 1999). Like in Hong Kong, ‘ageing in place’ is the cherished wish of most older persons, who wish to be able to grow old in their familiar home localities. This has been recognized for several years and was addressed by the HKSAR Chief Executive, Mr Leung Chun-Ying, in his first policy address in 2013. Institutionalization, whether in formal residential or hospital settings, is generally only a last resort for the older persons, or for people with specific care needs such as advanced dementias (Phillips and Yeh, 1999). Therefore, if environmental settings, on a macro-level or micro-level, can facilitate the better living of older persons, it will not only be a great social boon (Phillips, 1999), but it too will support the independence and feelings of social connectedness of older residents.

1.1.3 Developing age-friendly communities

Given the concerns introduced above, there is now an increasingly urgent need to understand the situation of ageing in different places. In 2005, the World Health Organization (WHO), working with 35 cities from all continents, launched the ‘Global Age-friendly Cities’ project and defined an ‘age-friendly city’ as ‘encouraging active ageing by optimizing opportunities for health, participation and security in order to enhance quality of life as people age’ (WHO, 2007, p. 1). Focus

groups with older persons, caregivers and service providers were formed to identify features that make local environments 'age-friendly'. A comprehensive checklist (in which items were driven by older dwellers themselves) was then developed and categorized into eight integrated and interacting domains that form an 'age-friendly city' (AFC) (Figure 1.1).

Figure 1.1 Age-friendly cities domains

Source: WHO (2007, p. 9), *Global Age-friendly Cities: A Guide.*

They were:

- Outdoor spaces and buildings (for example, clean environment, green spaces, well-maintained walkways, adequate toilet facilities);
- Transportation (for example, affordable, reliable and frequent public transport, well-connected routes that can reach key destinations like hospitals, parks, shopping centres);
- Housing (for example, affordable housing and maintenance services, appropriate design, enabling 'ageing in place', available housing options);
- Social participation (for example, wide range of activities for a diverse population, fostering intergenerational interaction, addressing social isolation);
- Respect and inclusion (for example, respectful and inclusive services, addressing ageism, including older persons in community decision making);
- Civic participation and employment (for example, available and flexible employment options, available retraining opportunities, enabling participation in civic events);
- Communication and information (for example, regular and reliable information reaching every resident, user-friendly technology);
- Community support and health services (for example, accessible and adequate health and social support services, addressing the needs and concerns of older persons).

(WHO, 2007)

1.1.4 Testing the age-friendliness of large urban areas: case studies of New York City and Sha Tin, a new town in Hong Kong

The network of and interest in AFC has grown enormously. Adapted from the initial initiative of WHO, various local initiatives have been appearing in a number of countries. One notable example is in USA, where the New York Academy of Medicine, together with the New York City Council and the Office of the Mayer, launched the 'Age-friendly New York City' project in 2007 aiming to assess the age-friendliness of the city from the perspectives of older residents in order to identify potential areas for improvement. The investigation was centred on direct interactions with the older New Yorkers in community forums, interviews and focus groups. From these, 59 'age-friendly suggestions' were set out for a friendlier New York City, such as increasing seating in bus shelters, enhancing the walking paths in parks and providing opportunities for learning across the life span, etc (Finkelstein et al., 2008).

Being part of international effort, the New York City project was a pioneer attempt for other countries to assess their cities. Sha Tin, a new town located in the New Territories Hong Kong, was the first district in Hong Kong being assessed in terms of its age-friendliness. In partnership with the Jockey Club Cadenza, the Chinese University of Hong Kong (CUHK) investigated Sha Tin as well as its neigbourhood Ma On Shan by using an 85-item questionnaire developed from the 'age-friendly checklist' by WHO (2007) in 2012 (Chau, Wong and Woo, 2013). Indeed, the New York City and CUHK studies formed part of the backdrop and baseline for this research.

1.2 Research objectives and research questions

Whilst there has been growing knowledge and understanding of environmental gerontology over the past 40 years (see Lawton and Nahemow, 1973; Rowles, 1978; Lawton et al., 1982; Andrews and Phillips, 2005; Smith, 2009), research studies so far have mainly been based in the USA (though they are appearing elsewhere gradually), so both empirical and theoretical published knowledge has unsurprisingly mostly come from studies of older Americans (Smith, 2009). Increasingly, it can be asked, because of the social differentiation among older dwellers, is the standard 'age-friendly checklist' of WHO (2007) appropriate for all and different social groups, and especially those living in other societies? Specifically, there is a lack of evidence on the impact of 'age-friendly' characteristics on the process of ageing too (Smith, 2009; AARP, 2013).

Therefore, to fill the research knowledge gap, especially in the Asia-Pacific region, first, this study focuses on a predominantly Chinese context, Hong Kong. Drawing on a range of urban sub-areas, this research investigates the age-friendliness of Tuen Mun, a former 'new town' of half a million population in the New Territories West. According to the Hong Kong Planning Department (2010), the proportion of elderly population in new towns will increase from 10.3% to 15.3% between 2009 and 2019. Although the proportion of old age population in Tuen Mun is not the highest among the eighteen districts currently, it is projected to become the most populous new town over the projection period. It will therefore be novel and informative in this research to explore the nature of age-friendliness of Tuen Mun, to provide recommendations in planning and other areas for the growing population in future. Second, concerning the appropriateness of the 'age-friendly checklist' for different social groups, we will

ask do people have different ratings towards the age-friendliness in Tuen Mun? What is the empirical evidence behind any such differences? Third, what is the impact of the age-friendly characteristics on the experience of ageing, as evidenced through the psychological well-being of residents? Do age-friendly characteristics affect older people's psychological well-being?

Last but not least, the current WHO AFC framework places strong emphasis on both physical and social environments as the age-friendly domains. However, perhaps there is another type of dimension which is more fundamental in nature. To be an 'age-friendly neighbourhood', it may be crucial, at the first step, to fulfill residents' 'basic' needs. Psychologist Abraham Maslow (1943) theorized that human beings seek to satisfy basic physiological needs such as hunger and thirst before they are motivated to satisfy any of their other needs like interpersonal relationship and self-recognition. Certain empirical findings also attached importance to food/eating well as a contributor to quality of life (Osler et al., 2001; Chan et al., 2002; Lu et al., 2002; Kwan et al., 2003). Specifically, to many Chinese people, 'clothing, food, accommodation, transportation' are a commonly held notion and 'basic' in daily life. Given that the WHO included both housing and transportation in the criteria of developing an 'age-friendly city', are 'lifestyle' essential items (i.e. food and shopping) also seen as crucial to 'age-friendly' characteristics in a Chinese context? In Hong Kong is particular, eating outside the home with family and friends seems to be a very important activity. Indeed, certain aspects of food and shopping may be a type of universal 'cultural' dimension, common to people everywhere even if the nature of food consumed, when and where are different. Therefore, it was proposed to include items to test this new additional 'lifestyle' dimension of age friendliness.

The above concerns may be summarized as this research project's objectives and research questions as follows:

Objective 1

To investigate the age-friendliness of Tuen Mun.

Research question 1

How age-friendly is Tuen Mun?

Objective 2

To find out if there is social differentiation in age-friendly characteristics.

Research question 2

Do different socio-demographic variables, such as age group, gender, type of housing, education, income affect the ratings of the domains?

Objective 3

To explore the association between age-friendly characteristics and psychological well-being (PWB) among older persons.

Research question 3

Are age-friendly characteristics positively related to PWB?

Objective 4

To conceptualize what makes cities age-friendly from an older-Chinese person's cultural perspective.

Research question 4

Apart from the domains mentioned by the WHO, are there any other factors (such as food and shopping) weighting relative importance to Chinese older persons?

1.3 Significance of the study

The significance of the study will be discussed in greater depth subsequently. At this initial stage, it is suggested that, by introducing a concern for the socio-demographic variables and 'age-friendly' cities characteristics, this study will allow exploration and questioning of existing knowledge and for new knowledge to emerge with regard to the issue of social differentiation in attitudes to age friendliness. This may complement the 'Age-friendly Cities Guide' by adding cultural specific criteria in Hong Kong. To date, present studies mainly narrate what an 'age-friendly' city should be, with limited investigation of the relationships between its characteristics and psychological well-being especially among different groups and locations. This study can potentially provide exciting and novel research knowledge and fill a gap by providing a picture of how these variables and concepts may be related each other.

Societally, this research is also novel study of the assessment of age-friendliness in New Territories West. From an appreciation of how age-friendly Tuen Mun is, research may hopefully provide deeper insights for officialdom, different public and non-governmental organizations and even individuals, to consider appropriate policy and practice solutions. It should also contribute to better understanding various factors helping or hindering 'ageing in place' in Hong Kong.

CHAPTER 2 LITERATURE REVIEW

The study of environmental gerontology is continuing to increase rapidly as there have been growing concerns to better understand the experiences of older persons living in urban areas. This interest is supported by research that suggests environment matters, for instance at the obvious level, in that people living in deprived neighbourhoods encounter more negative challenges like crimes, antisocial behaviour and poor housing than those living in non-deprived areas (Atkinson and Kintrea, 2001; Brown et al., 2004). However, it is also more subtle. Becker (2003, p.130) highlighted 'the spatial contexts in which elders live and the meaning they attach to the places they call home is a critical component of studying the ageing process'. Taking this approach requires deeper knowledge at both conceptual and operational levels of environmental ageing, so reviews of theoretical as well as empirical literature on 'the person' and 'the environment' are therefore needed. This chapter will introduce many classical and more recent environmental concepts on ageing, including Lawton and Nahemow (1973)'s ecological theory of ageing, the WHO initiative on 'age-friendly cities' and other relevant concepts and issues.

2.1 The role of environment in old age

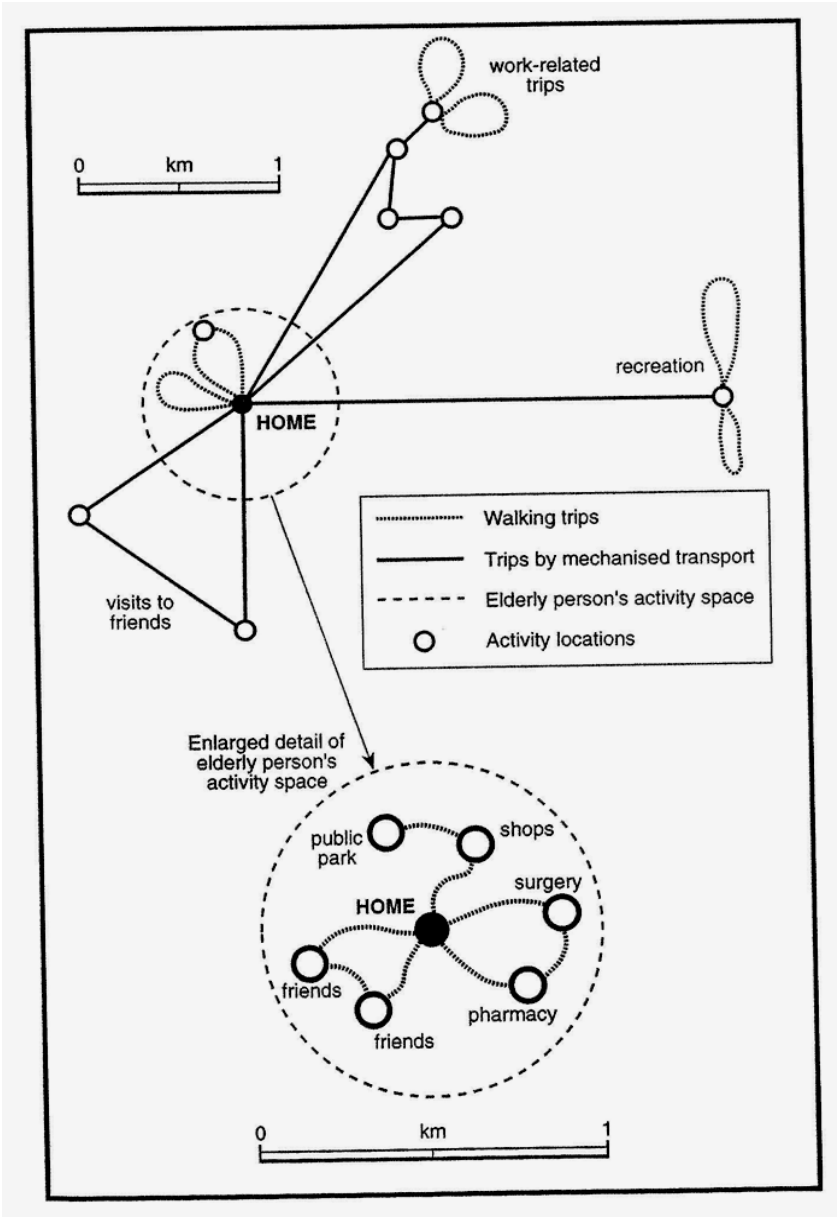
According to Cutchin (2005, p.121), 'place' is 'a concept that broadly refers to the ensemble of social, cultural, historic, political, economic and physical features that make up the meaningful context of human life'. Connected to this, 'environment' is defined by Peace et al. (2006, p.8) as 'both the place and space that encompass the person and affect their understanding of themselves and the culture in which they live'. They both noted that the environment can be distinguished on the basis of

macro- and micro-levels. Given the focus of this research is on age-friendly city characteristics, environment in this study will be conceptualized from the more macro-level (rather than the more micro-level of interior design) which itself can be broadly perceived as having two main forms: physical and social. The physical refers to the built infrastructures such as roads, ramps, transport, home design and architectural aspects in the community; the social parts are also important as physical provision centres around the social networks, services and support. Both physical and social environments will tend to interact to influence the relationship between an older person and the neighhourbood.

It has been well-documented that environment takes on a greater influence for older persons than younger groups. Phillips (1999) underlined that ageing may often have the effect of shrinking people's life-spaces. Figure 2.1 illustrates the restricted local activity patterns of some elderly households. Older persons generally have more constricted local activity spaces, they tend to perform daily activities (going to parks, meeting friends, shopping, visiting doctors etc.) within walking distance as they usually do not have to go to work or are less mobile due to declining physical ability.

For people with some forms of disability, the local environment can come to be of even greater importance since the reduced ability creates a barrier for them to adapt to the stressful environment (Hooyman and Kiyak, 2008). Yet even for older persons who are confident with age but experience some levels of deterioration in physical ability, areas with social and physical barriers can be so challenging that they are likely to encounter mobility problems and social isolation (Kalache and Kickbusch, 1997). Therefore, older persons concomitantly tend to be more affected by their local environment than other age groups (Phillips and Yeh, 1999).

Figure 2.1 Restricted local activity patterns of some elderly households



Source: Phillips (1999, p. 21), *The Importance of the Local Environment in the Lives of Urban Elderly People.*

2.2 Influences on psychological well-being (PWB)

Quality of life (variously defined and measured) has long been the policy goal for general well-being of individuals. Much research supports the connection between 'place and ageing' and quality of life (Farquhar, 1995; Raphael, et al., 1999; Hannan, 2001; Scharf et al., 2002a, 2002b; Gabriel and Bowling, 2004; Wiggins et al., 2004). Indeed, quality of life (QoL) for older persons is a complex concept which it is not only driven by health status, but also by a positive psychological sense of self (Borglin et al., 2005), suggesting another important consideration for understanding their psychological-well being (PWB). QoL and associated concepts such as 'happiness' are becoming of great interest to policy makers and citizens in almost all developed countries, though the definitions and measurement of such concepts vary considerably, and especially how they relate to facets of personality (Ng and Ho, 2006; Siu et al, 2006).

At present, there is no standardized or wholly agreed definition of PWB. In general, PWB is viewed as a group of mental health factors affecting people's everyday life (Lawton et al., 1999). It can be interpreted as multidimensional qualities like self-esteem, self-efficacy (Lansford et al., 2005), life satisfaction (Conrad and Jolly, 1997) and depression (Hunter and Linn, 1981). It can also be viewed as existential challenges of life including self-acceptance, personal growth, purpose in life, environmental mastery, autonomy and positive relations with others (Ryff, 1989; Ryff et al., 2002). PWB is sometimes referred to 'subjective well-being' (SWB) (Diener, 1984; George, 1981). Slightly different from PWB, SWB is the subjective evaluation of wellness on one's life (Diener, 1984), which does not include the objective issues like behavioural or psychiatric references. Bradburn (1969, p.9)

identified PWB is a balance of positive and negative affect: ‘an individual will be high in psychological well-being in the degree to which he has an excess of positive over negative affect’ and ‘will be low in well-being in the degree to which negative affect predominates over positive’. In this study, PWB is seen as providing an indication of positive and negative affective states.

2.2.1 The ecological theory of ageing: the Person-Environment fit model

It has been well recognized that environmental factors constitute an effect on older persons’ PWB or well-being more generally. Studies have found that among older persons, dwelling conditions are positively associated with PWB, the more favourable the environment, the more positive its impact on PWB (Lawton and Nahemow, 1973; Lawton, 1983; Magaziner and Cadigan, 1989; Brown, 1995, 1997). For example, in the study of Godfrey et al. (2004), availability and access to services such as libraries, health and social care are the key factors in supporting independence, self-efficacy and people’s feelings of social connectedness. This relationship between environment and PWB is rooted in Lawton and Nahemow (1973)’s ecological theory of ageing/person-environment (P-E) congruence model, which has been the dominant paradigm in environmental gerontology over 30 years. There are two concepts – ‘personal competence’ and ‘environmental press’. ‘Personal competence’ refers to individual determinants such as financial status, functional health, social networks and personality while ‘environmental press’ examines the contextual demand of a given environment to influence behavior (e.g. demand of the area, physical barriers, fear of crime, environmental hazards) (La Gory et al., 1985; Brown, 1995). The model functions in the way in which people’s well-being is seen as ‘the result of a combination of a press of a given magnitude

acting on, or perceived by, or utilized by, an individual of a given level of competence' (Lawton, 1982, p.43), or in other words, well-being is optimal/best fit when needs are met with the environmental characteristics. This model as a result influences the extent to which a discrepancy between environments and basic needs can undermine emotional and mental health (Kahana, 1982). In Hong Kong itself, Phillips et al (2009) had noted a positive relationship between P-E fit and PWB. It is also influenced however by social support and other social environmental factors (Phillips et al, 2008). So this is clearly a complex and interesting area of academic research to which the age-friendliness aspects of cities add another perspective.

2.3 A global policy approach: to promote ageing in place

It is not only academics who are concerned about environmental ageing issues, but also international policy makers and practitioners increasingly feel the need to meet the needs of an older society by enabling ageing in place. Home is the foundation where identity, family bonds and feelings of rootedness are formed. It is wholly understandable that most older persons would prefer to remain in their own homes and communities for as long as possible even when faced with increased frailty (Haldemann and Wister, 1993; Rowles, 1993; OECD, 2003; Godfrey et al., 2004) due to physical familiarity and place attachment (Smith, 2009). Like administrations in many other ageing cities, the HKSAR government and its predecessors have since 1977 or earlier been supporting implicitly or explicitly the concept of ageing in place (sometimes via the idea of care in the community), with for example the development of intensive community care services for older persons and their carers. These include community nursing, home visiting with rehabilitation services, housekeeping, day care, training courses for carers, respite etc (Elderly Commission,

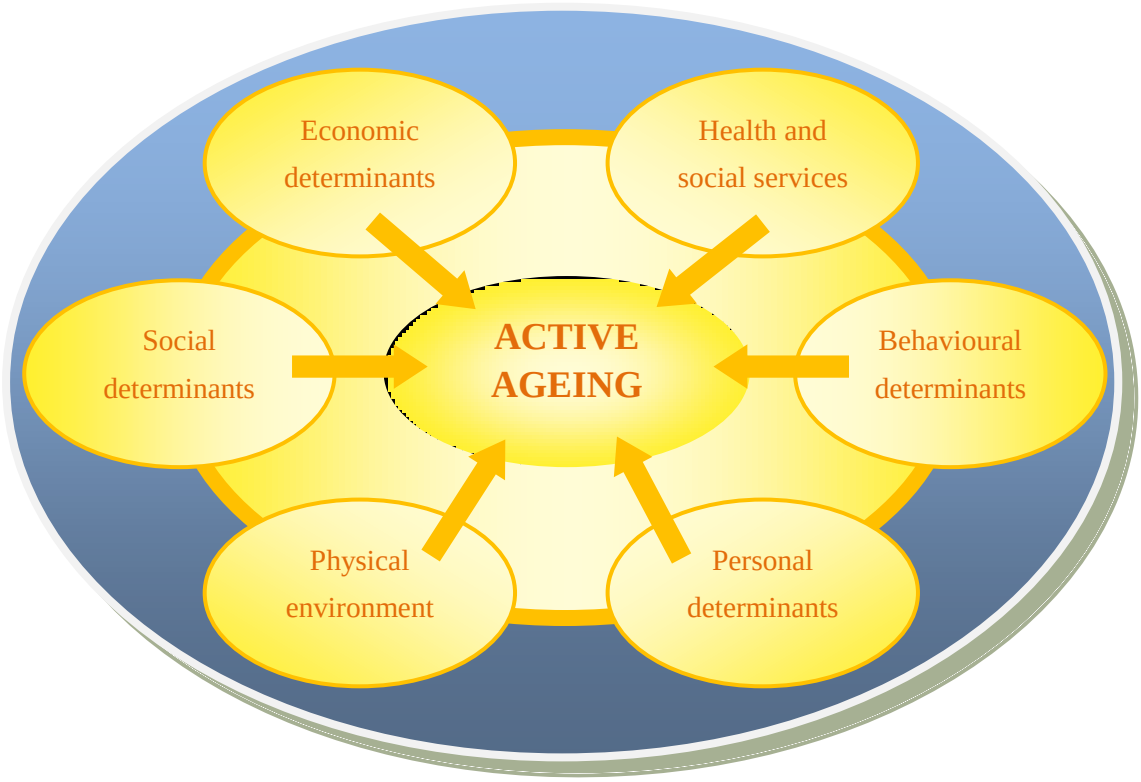
2011). Ageing in place has also been more specifically identified as policy in Hong Kong recent decades. Globally, and locally, it is also closely related to the concept of deinstitutionalization, the key point of which is to give older persons choice to age at home as far as practicable other than *unnecessary* institutionalization (of course, sometimes institutional care is required). Nonetheless, a study carried out by Hong Kong's Elderly Commission in 2011 found that the volume and government expenditure on residential care services were remarkably higher than that on community care services in 2010-11, showing an imbalance service provision for these two streams. This seemed to result in a 7% institutionalization rate, which was well above the average rate of institutionalization in Asia (though admittedly such rates are lower in Asia than in many Western countries). This suggests there is not enough 'quantity' of support services (regardless of quality) or, perhaps, older persons and their families just know little about community care services and end up with admissions to residential care when older people have a moderately high level of ADL (activities of daily living) impairment. It is hence crucial to ensure sufficient and diverse choices of community care service delivery to achieve the ageing in place approach, especially to avoid unnecessary institutionalization.

2.4 A new initiative - the development of age-friendly cities

Given the growing policy interest globally about building optimum community environments for ageing populations, as noted in Chapter 1, the WHO, working with 35 cities from developed and developing countries, launched the 'Global Age-friendly Cities' project in 2005 aiming to develop a new vision of an age-friendly city defined by older persons themselves. The central theme is built on the earlier 'active ageing' policy framework – the concept of enhancing quality of

life by optimizing opportunities for health, participation, and security as people age (WHO, 2002). This framework stresses a 'rights-based' approach instead of a 'needs-based' approach which acknowledges people should have equal opportunity and treatment as they grow older. Determinants of active ageing include material conditions as well as social factor (see Figure 2.2), which mirror multi aspects of urban settings and services and are also the 'core features' of an age-friendly city.

Figure 2.2 Determinants of active ageing

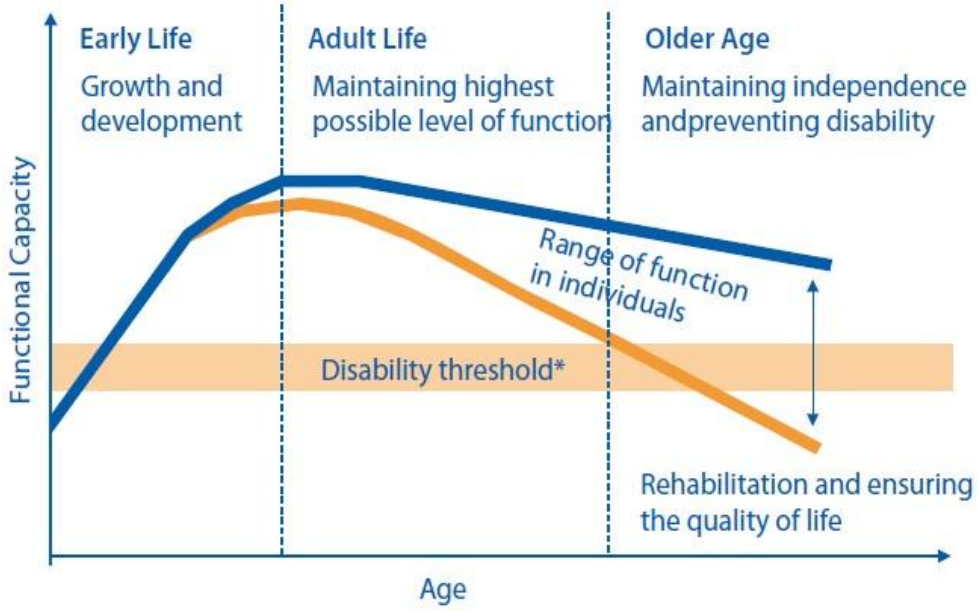


Source: WHO (2007, p. 5), *Global Age-friendly Cities: A Guide.*

Another key concept of age-friendly cities is design for diversity, 'cities should seek to extend the years an individual can live independently and above the disability threshold' (Finkelstein et al., 2008, p.5). Figure 2.3 explains diagrammatically how human functional capacity, perhaps inevitably, tends to decline with age, but that,

crucially, the speed of that decline can be mediated by lifestyle, as well as external environmental, social and economic determinants such as nutritious food, safe transportation, barrier-free design and social support services. This enablement helps maintain older persons' independence and maximize participation in society, in addition, it helps individuals with different capacities participate in the daily life of the city.

Figure 2.3 Disability threshold



Source: WHO (2007, p. 6), *Global Age-friendly Cities: A Guide.*

Since achieving active ageing is a life-long process, an age-friendly city is not just 'elderly-friendly', but the emphasis is to make cities friendly for all ages (WHO, 2007). For example, parks and recreational facilities benefit children and younger people just as much as their grandparents.

In order to help cities see themselves from the perspective of older persons, WHO collaborators ran a total of 158 focus groups which gathered older persons,

caregivers and service providers to obtain the first-hand experience of benefits and constraints that they had in city living. Eight topics were explored in discussions, including 'Outdoor spaces and buildings'; 'Transportation'; 'Housing'; 'Social participation'; 'Respect and social inclusion'; 'Civic participation and employment'; 'Communication and information' and 'Community support and health services' (see Chapter 1, p.4). These comprehensively cover aspects of built environment, service provision and participation that reflect the determinants of active ageing. A checklist of 88 core age-friendly features was then developed to identify where and how cities could become more age-friendly in each of the domain. This checklist, according to WHO (2007, p.10-11) is a 'faithful summary' of the views expressed by older persons themselves and is 'a tool of a city's self-assessment and a map to chart progress'. Hence, some items from the checklist were adopted in the current study to assess the age-friendliness of Tuen Mun district.

Four principles in helping places to become age-friendly

AARP, formerly the American Association of Retired Persons, launched the AARP Network of Age-Friendly Communities in 2012 in response to the WHO. AARP (2013, p. 16) draws attention to four important principles in helping places to become more age-friendly, the first being to 'listen to what residents have to say'. This is consistent with what Buffel et al. (2012, p.613) addressed – to 'involve older people in developing age-friendly urban environments'. Three examples of projects which highlighted the significance of community involvement among older dwellers were found: the Global Age-friendly Cities project (WHO, 2007); the Belgian Ageing Studies project (Verté et al., 2007) and the Community Action in Later Life – Manchester Engagement project (Scharf et al., 2009; Murray and Crummett, 2010).

In these studies, a bottom-up participatory approach was adopted. Older people acted as full participants to identify community initiatives, design and realize the projects. This indeed empowers older people to participate in decision-making and to add real insights towards urban environment to inform government policies. Despite these encouraging studies, evidence tends to point to the fact that older people are still often 'invisible' in policy planning and are among the last to be engaged in decision making with neighbourhoods (UN-Habitat, 2010). Researchers wonder if this is also the case in Hong Kong's bureaucratic and somewhat departmentalized planning system.

Second, as suggested by AARP, is to 'take a holistic approach'. The clearest illustration is the eight overlapping and interrelated domains of an age-friendly city identified by the WHO (2007). Structures, environment, services and participation should all be considered. More importantly, an age-friendly city can only result from the interaction of urban features that are mutually enhancing, for example, transportation and infrastructure are always linked to opportunities for social, economic and civic participation, as well as access to health care services.

The third principle is to 'consider the social, as well as the built, environment'. Not only the physical environment, but also the social environment which promotes engagement, tolerance and security is also seen as crucial to older people to enrich later life and help avoid social isolation. Proximity to amenities and social services brings significant opportunities for developing social networks and social bonds (Chow, 1999; Phillipson et al., 2002). For instance, higher levels of social participation are found among older persons with access to facilities such as libraries, parks, museums, and community centres (Richard et al., 2008). Murray and

Crummett (2010) found that cultural activities such as community arts project can combat marginalization and social exclusion.

Lastly, 'focusing on safety and security' contributes to a desirable locality since older people are more vulnerable to urban hazards and risks like crime and traffic accidents, an increasing area of concern in modern urban environments (Harris, 1977; Klinenberg, 2002; Romero-Ortuno et al., 2009).

2.5 Beyond the Global Age-friendly Cities Guide

Notwithstanding the increasing awareness about the need to consider the local environment in the process of ageing, empirical tests of the reality and meaning of age-friendly cities other than the WHO project are rare. More effort should be devoted to the subsequent steps to explore how the age-friendly characteristics may be defined and operationalized with well-being, and to look at if the age-friendliness varies across different social groups and especially in Asian settings. Thus, the current research intends to obtain more knowledge about age-friendly cities among older people, and to place it in the context of Hong Kong.

2.5.1 Social differentiation and age-friendliness

The need for sustainable urban development is undoubtedly assuming greater urgency in social policy, however, implementing this agenda may require radical interventions. Buffel et al. (2012) noted that when determining the age-friendly cities approach, the diversity of cities as well as the heterogeneity of their populations (i.e. young and old, low-income and high-income, poor housing and better housing etc)

should be noticed as the pattern of urban growth and demographic characteristics themselves show considerable variations (see also Chou and Chow, 2005; Chou, Chow and Chi, 2006). Policy strategies should be developed to target different groups within the older population since different groups, for example, people with particular physical or mental health needs, and those living in poor housing alongside high population turnover, may face contrasting problems.

Despite relatively limited research in the 'social demography' of residential satisfaction among older people, studies on differentials in health, susceptibility and illness among social groups are to be seen in medical sociology that can support the points raised by Buffel et al. For many years, age, gender, race, and social class/socio-economic status have been found to be enduring variables affecting mortality, morbidity and disability rates. For example, among the 'new generation' of older people in the USA, women, white Americans and the upper class were likely to be healthier than their other counterparts (see, for example, Phelan et al., 2004; Syme and Berkman, 2005; Cockerham, 2007). In Hong Kong, older people living in public elderly homes felt most comfortable, were more satisfied with their homes and were in better health than those in private homes (Siu, 1999). Knowing the considerable variety in individual experiences and needs, Buffel et al. (2012) underlined the importance for new interventions which can respond to heterogeneous contexts as well as demographics for the age-friendly approach. In line with this suggestion, this current study therefore aims to explore whether social differentiation in age-friendliness can be identified in different social groups (such as men and women, public and private housing residents, variables not yet thoroughly investigated) and, if so, the potential implications this holds.

2.5.2 Are ‘lifestyle items’ age-friendly features?

It seems sensible to extend some of the more formal WHO AFC domains to include ‘softer’ social issues involved in people’s daily lives in different places. For example, food shopping is a common experience for most people in their daily life, particularly, the notion of ‘food is the first thing of people’ comes to be an essential idea. Given the demographic changes, older people are becoming an increasingly important consumer segment that their food and shopping needs must be fulfilled (Gunter, 1998; Geuens et al., 2003; Ong and Phillips, 2007; Ong et al, 2013). Related literature showed that the behaviour of older consumers may differ to that of their younger counterparts, which include increased store loyalty, shopping during mornings, preferring one-stop shopping, looking for personal and special services (Ahmad, 2002; Moschis, 2003; Pettigrew et al., 2005; Patterson, 2007). Older consumers have some though not necessarily totally distinctive needs as they age, Goodwin and McElwee (1999) argued that it is unwise to treat the older consumers with the same needs, they have a diverse range of shopping preferences to which retailers should pay more attention to their products for the older people.

Nevertheless, it is claimed that retailers pursue customers who are wealthier and have a higher purchasing power, leaving others, such as older people, with fewer choices (Hare, 2003). For this reason, to better meet older consumers’ needs, some key factors have been identified which include accessibility to stores, accessibility to food-in-stores, improvement in in-store facilities and affordability of products (Meneely et al., 2008; Ong et al, 2013). The ‘silver market’ and the global importance of older consumers generally have been increasingly identified (see for example Stroud and Walker, 2013). As the fundamental basic Global Age-friendly

Cities Guide does not pay this aspect much specific attention, this research feels it important to test whether such social variables as ‘food and shopping’ may also be one of the age-friendly characteristics that should not be neglected. This research as a result includes items on Chinese older consumers’ food and shopping experiences to find out if these factors are associated with ageing well, at least as indicated via PWB and satisfaction levels.

CHAPTER 3 METHODOLOGY

3.1 Research design

This is an exploratory study combining both quantitative and qualitative research methodologies in the investigation of older people's evaluations of age-friendly city characteristics.

In order to investigate the perceived age-friendliness of Tuen Mun amongst respondents with different socio-demographic characteristics and its relationship with well-being, as reflected by PWB, a face-to-face questionnaire survey method was adopted. This interview survey would serve as an appropriate data collection method given the possibility of some older respondents having limited reading ability and then being disinclined to participate. Moreover, it was anticipated that a higher response rate would be achieved and generally it would be possible to obtain more detailed personal information and to draw more remarks from the participants (Babbie, 2010). Some literate subjects in elderly centres responded to self-administered questionnaires with assistance from trained research assistants.

Focus group interviews were held after the questionnaire survey. Focus groups may be defined as 'planned meetings of groups of people, who possess certain characteristics, that provide data of a qualitative nature usually through a series of focused discussions', according to Phillips (1998, p. 32). Morgan (1997) recommended that a focus group should comprise 5 to 8 people from similar backgrounds. Most authorities agreed focus groups can be used either on their own or in conjunction with other quantitative methods (Krueger, 1994; Morgan, 1993,

1997) and their use as a ‘post survey’ follow-up is a recognized qualitative method of exploring meaning in more quantitative data. Phillips (1998, p. 33) suggested ‘focus groups can be used at various stages of research…can be applied before a programme begins, during or after a programme, as post facto evaluation or continuing evaluation’.

Indeed, research designs linking quantitative and qualitative data are increasingly important, particularly in environmental gerontology. According to Parmelee and Lawton (1990) and Wahl and Weisman (2003), the predominance of quantitative studies and a lack of methodological advancement is a methodological limitation within the current environmental science research. La Gory et al. (1985) earlier argued that quantitative data alone do not provide the rich detail required to understand the environmental experience so, therefore, intensive, or in-depth, qualitative interviews with selected subgroups of older respondents should be adopted in future efforts. This mixed-methods approach can potentially be of great help to ensure relevant issues are explored with both statistical supports while the validity and meaning in the findings can be explored through qualitative evidence.

In the present study, a formal questionnaire survey was used to explore the general picture of age-friendliness of Tuen Mun in terms of nine domains with different social variables and its relationship with PWB. Focus groups were conducted to selectively evaluate and explain some of the novel findings generated from the questionnaire data, so as to achieve deeper understanding of topics and add richness to the quantitative findings (details are presented in Chapter 4 and 5).

3.2 Participants and procedures

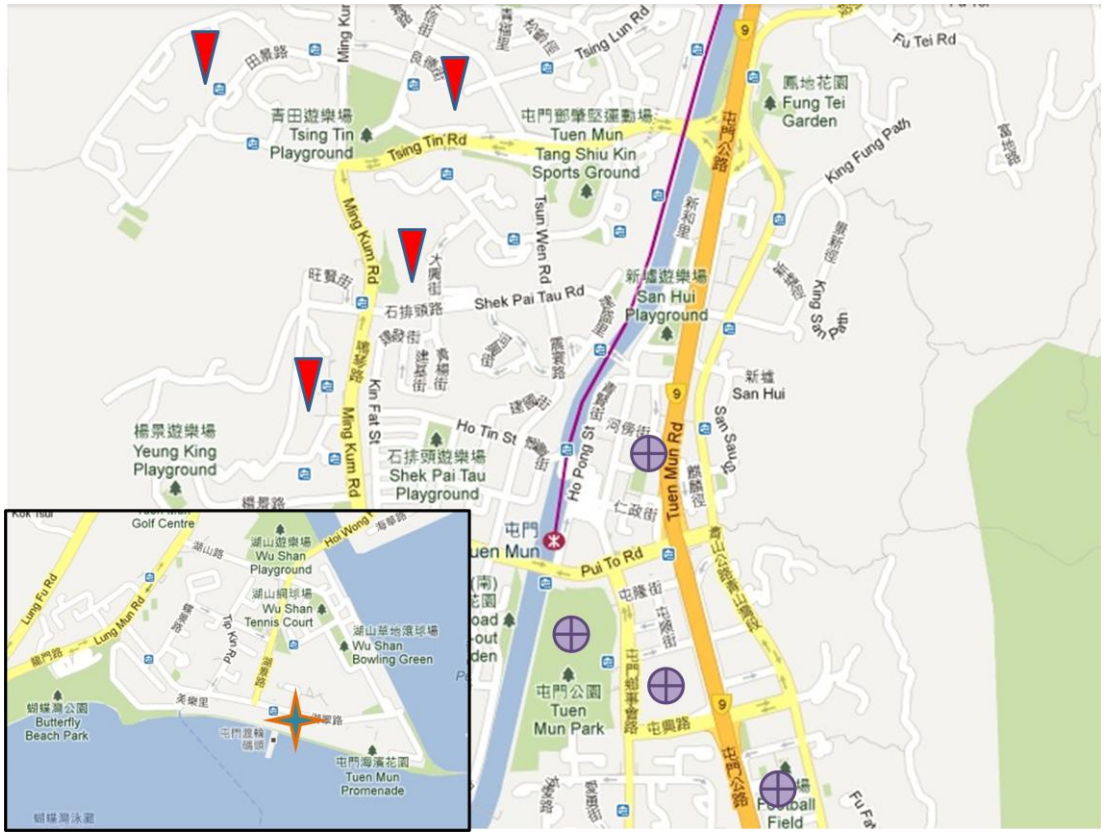
3.2.1 The questionnaire survey

People who were aged 50 or above and currently living in Tuen Mun were eligible to participate in the questionnaire survey. In Hong Kong, older persons are generally defined as 65 years old or above (sometimes 60, as is common in the United Nations), which is also the definition for many social policies. For example, local residents aged 65 or over can apply for the Senior Citizen Card Scheme (Social Welfare Department, 2013). However, in addition to looking at older age groups, this study wants to include the views of some 'rising older' cohorts, whose members will be in the 'older group' within a decade or so. Therefore, it was decided to include respondents aged between 50 to 64 years old. People in this group may still be in the work force, they could perhaps have different attitudes and may allocate different ratings in terms of age-friendliness when compared to older age groups, especially the older-old cohorts aged over 80. Thus, 50 years or above was set as the cut-off selection criterion. For subsequent statistical analyses, participants were divided into three groups: (i) participants aged 50–64 years (i.e. the rising older cohort), (ii) participants aged 65-79 years (i.e. the older group), and (iii) participants aged 80 over (i.e. the oldest-old group).

The survey was conducted from June to August 2012. As this study is essentially exploratory in nature, convenience sampling was adopted with quota for different age groups (i.e. 30% for '50-64' years; 55% for '65-79' years; 15% for '80+' years). Participants were recruited from parks, markets, public recreational areas like Yan Oi Tong Square, Tuen Mun Promenade and the Gold Coast, as well as NGO elderly

centres (see Figure 3.1). Geographical variation was considered so that residents from both public estates and more high-ordered residential buildings could be interviewed.

Figure 3.1 Locations/sites of questionnaire survey



⊕	Tuen Mun Park, Tuen Mun Town Hall, Yan Oi Tong Square, Sun Hui Market, Chi Lok Market	48%
✦	Tuen Mun Promenade, Gold Coast, Sam Shing	30%
▼	NGOs (Tai Hing Bradbury Elderly Centre, Kin Sang Church Elderly Centre, Tin Yue Baptist Church Elderly Centre, Hong Kong Lutheran Healthy Ageing Club)	22%

Before the data collection, training was given to research assistants to standardize the research protocol, including the flow and wordings. The survey was supervised and co-designed by the researcher and her supervisors. The data presented here formed part of a larger questionnaire study, from which she was able to extract data on the variables discussed below. As discussed below, the questionnaire was partly based on a similar study by the CUHK, whose assistance in comparative data and discussions are gratefully acknowledged. Approval for this research and the methodology was obtained from Lingnan University's Research Ethics Committee. A survey booklet contained the objectives of the study, instructions for completing the questionnaire, measures and demographic information (Appendix I and II). It was made clear to respondents that their participation in the research project was voluntary, and that they could decline with no risks. They were each given a small token (snack) on completion of the questionnaire. The confidentiality of each participant was ensured.

Participants' characteristics

In total, 503 questionnaires were conducted with only one participant failing to complete the questionnaire. 96.4% were collected face-to face while 3.6% were self-administered. Participants ranged in age from 50 to above 80, sub-classified as '50-64' (35.8%), '65-79' (48.9%) and '80+' (15.3%). 228 (45.3%) were men and 275 (54.7%) were women. Concerning marital status, 3.2% (n=16) were single whereas 71.7% (n=361) were married, 24.9% (n=125) were widowed, divorced or separated, and 0.2% (n=1) of the data were missing. With regard to type of housing, 73.2% (n=368) were living in public housing while 26.6% (n=134) were living in private housing, and 0.2% (n=1) had missing data. With regard to education level, unsurprisingly this was generally rather low among the age group; 22.1% (n=111) of

the respondents had received no schooling, 39.5% (n=199) attained primary school level, 32.4% (n=163) had graduated from secondary schools, 5.4% (n=27) had a university degree or above, and 0.6% (n=3) were missing data. Regarding work status, 14.9% (n=75) had a job, 84.9% (n=427) were retired and 0.2% (n=1) was a missing case. For total household income, 44.3% (n=223) had an estimated total household income per month lower than $6,000; 28.4% (n=143) had a household income of between $6,000 and $14,999; 18.5% (n=93); had between $15,000 and 29,999; only 3.2% (n=16) had a household income higher than $30,000; and 5.6% (n=28) of data were missing. Table 3.1 summarizes the overall demographic details of the respondents.

3.2.2 Focus group interviews

In order to conduct the follow-up sub-group analyses, two groups of participants, people living in public housing, with lower education and income, and people living in private housing who generally had better education and higher income, were selected in accordance with the sampling criteria used in the questionnaire survey. Two focus group (FG) interviews were conducted (a total of 10 respondents) in February 2013. FG 1 (respondents living in public housing, received a lower education and with lower income) was conducted in an elderly centre in Tin King, Tuen Mun, in which respondents were selected by the staff. FG 2 (respondents living in private housing, with a better education and higher income) was conducted in Lingnan University in which respondents were invited from Elderly Academy and by snowball sampling. There were five participants in each FG, and each discussion lasted for 60 to 75 minutes. Table 3.2 shows the demographic features of the FG samples. Participants were asked to share their feelings on the age-friendliness of their communities as well as consider the results obtained from the questionnaire survey. The FGs used as prompts semi-structured questions, for example, ‘what do you think of the relatively low score for housing?’ Participation was on a voluntary basis. Anonymity and confidentiality of the responses of the participants were assured.

Table 3.1

Descriptive Statistics for Demographic Variables in Questionnaire Survey (n=503)

Variable	Frequency	Percentage
Age		
50-64	180	35.8
65-79	246	48.9
80+	77	15.3
Gender		
Male	228	45.3
Female	275	54.7
Marital status		
Single	16	3.2
Married	361	71.7
Widowed/ divorced/ separated	125	24.9
Missing data	1	0.2
Housing		
Public housing	368	73.2
Private housing	134	26.6
Missing data	1	0.2
Education		
No schooling	111	22.1
Primary school	199	39.5
Secondary school	163	32.4
Degree course or above	27	5.4
Missing data	3	0.6
Work status		
Employed	75	14.9
Retired	427	84.9
Missing data	1	0.2
Total household income		
<$6,000	223	44.3
$6,000-14,999	143	28.4
$15,000-29,999	93	18.5
>$30,000	16	3.2
Missing data	28	5.6

Table 3.2

Descriptive Statistics for Demographic Variables in Focus Group Interviews

	Focus group 1 (n=5)		Focus group 2 (n=5)		Total (n=10)	
Variable	**n**	**%**	**n**	**%**	**n**	**%**
Age						
50-64	2	40	3	60	5	50
65-79	2	40	2	40	4	40
80+	1	20	-	-	1	10
Gender						
Male	3	60	2	40	5	50
Female	2	40	3	60	5	50
Housing						
Public housing	5	100	-	-	5	50
Private housing	-	-	5	100	5	50
Education						
No schooling	-	-	-	-	-	-
Primary school	3	60	-	-	3	30
Secondary school	2	40	-	-	2	20
Degree course of above	-	-	5	100	5	50
Total household income						
<$6,000	5	100	-	-	5	50
$6,000-14,999	-	-	-	-	-	-
$15,000-29,999	-	-	-	-	-	-
>$30,000	-	-	5	100	5	50

3.3 Measures in the questionnaire survey

3.3.1 Age-friendly cities (AFC) domains

The AFC domains were assessed by the items from the joint study of Jockey Club Cadenza and the CUHK (Chau, Wong and Woo, 2012). The questionnaire from the Cadenza project had been developed according to the checklist of the WHO Age-friendly Cities Guide (WHO, 2007) and with their permission the Tuen Mun project was able to develop and extend the research. A total of 81 aspects under the eight original WHO AFC domains were used to assess the age-friendliness of the district. In the present study, 69 items from the Cadenza instrument were maintained to enable longer-term comparisons in a broader project. Some 'multi-barreled' questions containing multi-themes were modified and separated into two or three sub-questions. This study focuses on the eight AFC domain scales plus one other as discussed below: 'Outdoor spaces and buildings' (13 items, α=0.80), 'Transportation' (23 items, α=0.85), 'Housing' (13 items, α=0.88), 'Social participation' (8 items, α =0.85), 'Respect and social inclusion' (6 items, α=0.76), 'Civic participation and employment' (4 items, α=0.75), 'Communication and information' (7 items, α=0.84) and 'Community and health services' (7 items, α=0.72). The questionnaire items used are shown in full in Appendix I and II. Sample items included the following: 'housing is located closed to services and the rest of the community', 'a wide variety of activities is offered to appeal to a diverse population of older people', 'older people are depicted positively and without stereotyping' and 'an adequate range of public healthcare services is offered'. Participants rated their feelings towards the AFC items on a 6-point Likert scale, ranging from 1 = 'strongly disagree' to 6 = 'strongly agree'. Higher scores when analyzed represented higher levels of AFC

ratings.

3.3.2 'Food and shopping' domain

With regard to Maslow's theory (1943) that people usually place the physiological needs as the first priority in satisfying needs, a section of items likely to be of importance to Hong Kong Chinese older people was devised. Food, eating and shopping are likely to be of considerable social importance to most Hong Kong older people (indeed, as noted earlier, there are probably universal aspects to this new domain). Therefore, determinants of a 'Food and shopping' domain, which may be characteristics of the age-friendliness of a location and agreed by Chinese older persons, were examined through 7 items (α=0.79) (as shown in Appendix I and II). Sample items were 'there is a wide range of goods (e.g. daily necessities, clothes) in nearby shops' and 'there are various dining options'. The same 6-point Likert scale was used for response and analysis as for the other 'standard' WHO AFC domains (1= 'strongly disagree'; 6= 'strongly agree').

3.3.3 Psychological well-being (PWB)

PWB has been a well-recognized construct for many years, even if there is not unanimity about how to measure it. Sociologists have for some years tended to recognize that people's sense of well-being is affected by their expectations and 'life concerns', it is subjective, and that they do not all start from the 'same level' (Phillips, 1978). Nevertheless, as an indication of community-levels, there are now a number of means of assessing PWB in a relatively quick and reliable manner. This study therefore measured it by five items based on a measure used in the study of Phillips

et al. (2005) originating from the WHO brief quality of life (QoL) scale (WHOQoL Group, 1998). The original WHOQoL scale consisted of 8 domains with 24 facets (WHOQoL Group, 1998). A shortened version which retained 28 items from five facets of the WHOQoL: 'positive feelings', 'thinking, learning, memory, and concentration', 'self-esteem', 'bodily image and appearance', and 'negative feelings' was earlier tested in Hong Kong (Leung et al., 1997). In Phillips et al.'s study, one item from each facet in the shortened version was extracted. The total of five items reflected the structure of the original WHOQoL. Since most participants were of the older generation and time was limited, adopting this shorter version of the WHOQoL was a pragmatic means to balance detail and time respondents would be willing to spend on responses, and to avoid respondent fatigue (Phillips et al., 2005). Sample items included "I enjoy life" and "I feel my life to be meaningful". This five-item scale was found reliable in the 2005 research study. The alpha coefficient in the present study was 0.78 which demonstrates adequate reliability. Items were rated on a 5-point Likert scale, ranging from 1 'never' to 5 'very often'. Higher scores indicated higher levels of PWB.

3.3.4 Demographics

In the present study, demographic variables including age range, gender, marital status, education level, type of housing, work status, self-rated health and total household income were reported (summarized for questionnaire respondents in Table 3.1).

3.4 Analysis

To provide an overall assessment of the effects of different socio-demographic variables such as age range, gender and type of housing on a set of AFC domains, MANOVA (Multivariate Analysis of Variance) analyses were performed by using PASW Statistics Version 18.0. Other quantitative analyses including independent sample t-test and univariate ANOVA (Analysis of Variance) on each AFC variable were also used as to examine the group differences. The post-hoc tests of univariate ANOVA were conducted to find out which conditions were significantly different from each other (George & Mallery, 2008).

Multiple regression analysis was used to locate the most salient AFC determinants related to PWB after considering all covariates (i.e. age range, gender, education level, self-rated health and total household income). The significance was assessed by the p-value, which should be less than or equal to .05 (with a 95% of significance level), and the effect of independent variables (AFC domains) was reflected by Beta (β) (George & Mallery, 2008).

It is noted that although demographic variables including age range, education level and household income were naturally treated as continuous variables in the regression and correlation analyses, to test whether there are significant differences in AFC ratings regarding different groups of people (e.g. participants aged 50-64 vs. 65-79 vs. 80+), these variables were also used as categorical variables in the ANOVA analyses for comparison of means.

Regarding the qualitative aspects of the study, focus group interviews were recorded

and transcribed for descriptive analysis and identification of themes or issues. These are discussed in detail in Chapter 5.

CHAPTER 4 RESEARCH FINDINGS (1)

4.1 The 'age-friendliness' of Tuen Mun

The existing AFC domains provide an indication of respondents' overall evaluations of age friendliness according to the WHO's original conceptualization, which will be refined in the subsequent analysis. First, one purpose of this research is to estimate in general how 'age-friendly' Tuen Mun is. The ratings of the eight domains and the proposed 'Food and shopping' dimension were calculated by the average ratings of the corresponding aspects (Appendix I and II). The mean scores of the domains for all respondents were, from descending order: (i) Social participation (M=4.51), (ii) Communication and information (M=4.42), (iii) Food and shopping (M=4.35), (iv) Outdoor spaces and buildings (M=4.32), (v) Transportation (M=4.30), (vi) Respect and social inclusion (M=4.01), (vii) Housing (M=3.90), (viii) Civic participation and employment (M=3.76) and (ix) Community support and health services (M=3.50).

Table 4.1
Mean Scores of the AFC Domains

	Domain	Mean(M)	Std. Deviation (SD)
1	Social participation	4.51	0.72
2	Communication and information	4.42	0.68
3	Food and shopping*	4.35	0.60
4	Outdoor spaces and buildings	4.32	0.66
5	Transportation	4.30	0.52
6	Respect and social inclusion	4.01	0.75
7	Housing	3.90	0.65
8	Civic participation and employment	3.76	0.82
9	Community support and health services	3.50	0.76

Note: 6-point Likert scale: 1 = 'strongly disagree' to 6 = 'strongly agree'.
* The newly proposed 'lifestyle domain'

Whilst Social participation scored significantly the highest, Housing, Civic participation and employment, and, Community support and health services, perhaps surprisingly scored relatively lower than other domains (Table 4.1).

To provide clearer information on the age-friendliness of Tuen Mun, the mean scores of all question items are listed in Appendix IV.

Though the questionnaire was based on closed-ended questions, remarks were jotted down when some respondents further explained their comments regarding specific aspects during the interviews. Table 4.2 shows examples of some of the remarks frequently raised by the interviewees. Most are about the potential improvement areas on the eight domains and the food and shopping dimension. It seems from such remarks that local circumstances, even within individual housing estates, may become key to satisfaction rather than the overall neighbourhood score. This does have some important implications for the concept of age-friendly cities, especially in mega cities such as New York and large cites in Asia. Perhaps it is better to talk about, or aim for, age-friendly ‘neighbourhoods’ rather than cities as a whole.

Table 4.2
Remarks Frequently Raised by Respondents

Domain	Comment
Outdoor spaces and buildings	• Positive comment: clean air • Not enough outdoor seating/ without shelter • Lack of maintenance for paths, recreational facilities and basketball court • Weak street lighting at night • Stairs only in some old public estates (e.g. Tai Hing)/ lack of ramps and elevators • Not enough outdoor public toilets/ dirty toilets
Transportation	• Positive feedback to public transport: with good connection, $2 a journey for 65+ • Expensive transportation especially for people under 65 • Inadequate transportation for disabled people • Drivers do not wait for passengers to be seated before driving off • Have priority seats, but sometimes people do not give seats to older people • Unfriendly taxi drivers/ reject passengers with wheelchairs
Housing	• Expensive (though relatively cheaper than other districts) • Long waiting list for public estates • Reasonable service charges for integrated home care services, but 2-3 years waiting time • Lack of monitoring for private residential care services
Social participation	• Affordable activities/ with subsidies • Only members of social centres can join the activities • Variety of activities not wide enough, particularly for men • Not enough venue for social activities • Lack of outreach services for people in isolation

Respect and social inclusion	• Helpful service staff • Older people are consulted in elderly centres, but not in private sectors • Not enough intergeneration activities/ schools should provide more activities for older people
Civic participation and employment	• Difficult to be employed/ ageism
Communication and information	• Good TV programs in advising crime prevention tips, e.g. Police Magazine • Difficult to use automatic telephone answering services • Difficult to use ATM machines/ complicated/ fonts are small
Community support and health services	• Long waiting time for public medical services/ difficult to make appointment by phone • No private hospital • The age limit of health care voucher should be lowered to 65 or 60 • Difficult to find social workers/ do not know how to get community support • Very limited public burial sites
Food and shopping	• Public estate shopping centres are revitalized, but prices become expensive • Fewer cooked food stalls in markets • Most of them are chained restaurants and shops/ fewer small enterprise

4.2 Age-friendly cities (AFC) domains and psychological well-being (PWB)

4.2.1 Bivariate correlation between AFC domains and PWB

Table 4.3
Correlation Matrix: AFC Domains and PWB

	Variable	1	2	3	4	5	6	7	8	9	10
1	Outdoor	(.80)									
2	Transport	.730**	(.85)								
3	Housing	.534**	.605**	(.88)							
4	SocialPart	.530**	.550**	.489**	(.85)						
5	Respect	.478**	.470**	.446**	.440**	(.76)					
6	CivicEmploy	.396**	.389**	.366**	.318**	.587**	(.75)				
7	Info	.514**	.543**	.488**	.484**	.538**	.473**	(.84)			
8	CommHealth	.505**	.502**	.539**	.477**	.499**	.455**	.482**	(.72)		
9	FoodShop	.425**	.512**	.407**	.417**	.387**	.415**	.379**	.481**	(.79)	
10	PWB	.148**	.203**	.162**	.263**	.135**	.056	.117**	.048	.215**	(.78)

Note: **p<.01 (2-tailed).

Outdoor= Outdoor spaces and buildings; Transport= Transportation; SocialPart= Social participation; Respect= Respect and social inclusion; CivicEmploy= Civic participation and employment; Info= Communication and information; CommHealth= Community support and health services; FoodShop= Food and shopping; PWB= Psychological well-being. Cronbach's alphas are in parentheses on the diagonal.

Another focus of this study is on whether the age-friendly features are positively related to PWB. Table 4.3 depicts correlations among variables. Seven AFC domains were found to have positive correlations with PWB, though the association was only small to medium. These were: r=.148, p<.01 for Outdoor spaces and buildings and PWB; r=.203, p<.01 for Transportation and PWB; r=.162, p<.01 for Housing and PWB; r=.263, p<.01 for Social participation and PWB; r=.135, p<.01 for Respect and social inclusion and PWB; r=.117 p<.01 for Communication and information and PWB; and r=.215, p<.01 for Food and shopping and PWB. Among these, Social

participation as well as the Food and shopping domains had the strongest positive correlations with PWB. However, Civic participation and employment, with Community support and health services, perhaps surprisingly did not show any significant correlations with PWB.

4.2.2 The most salient AFC factors related to PWB

Multiple regression analysis was used to explain how several combined AFC variables operate to predict the outcome (i.e. PWB) and to locate the most salient AFC factors that related to PWB while controlling for the covariates (i.e. socio-demographic variables). Since age range ($r=-.138$, $p<.01$), education level ($r=.179$, $p<.01$), employment status ($r=.107$, $p<.05$), subjective health status ($r=.335$, $p<.01$) and household income ($r=.230$, $p<.01$) were correlated to PWB, they would be the control variables in the following regression analysis.

In Table 4.4, Model 2 indicated that after considering the demographic variables, the multiple correlation coefficient (R) was .52 ($R^2=.25$), meaning that 25% of the variance in PWB could be explained by the whole set of predictors; and, the inclusion of AFC domains explained an additional 9.3% of the variance. Among all the predictors, Social participation ($\beta=.191$, $p<.001$), Respect and social inclusion ($\beta=.146$, $p<.01$), Community support and health services ($\beta=-.163$, $p<.01$), and Food and shopping ($\beta=.115$, $p<.05$) were the most salient predictors of PWB. They were the ‘software’ domains related to social support and provision of services.

Table 4.4

Multiple Regression of AFC domains on PWB

Model	**B**	**R^2**	**$\triangle R^2$**
1		.159	.159***
Age range	.015		
Education level	.124**		
Employment status	-.054		
Self-rated health	.323***		
Household income	.142**		
2		.252	.093***
Age range	-.027		
Education level	.125**		
Employment status	-.053		
Self-rated health	.306***		
Household income	.153***		
Outdoor	-.037		
Transport	.076		
Housing	.066		
SocialPart	.191***		
Respect	.146**		
CivicEmploy	-.023		
Info	-.061		
CommHealth	-.163**		
FoodShop	.115*		

Note: *p<.05. **p<.01. ***p<.001.

Outdoor= Outdoor spaces and buildings; Transport= Transportation; SocialPart= Social participation; Respect= Respect and social inclusion; CivicEmploy= Civic participation and employment; Info= Communication and information; CommHealth= Community support and health services; FoodShop= Food and shopping.

However, a negative correlation between Community support and health services and PWB was found (β=-.163, $p<.01$), which is quite counter-intuitive (unexpected). A 'suppression effect' might be detected here as one potential explanation. A 'suppressor' is a predictor that is uncorrelated with the criterion but whose presence improved prediction because of its correlation with other predictors (Hinkle et al., 1994; Tzelgov and Henik, 1991; Pedhazur, 1982). Community support and health services acted as the suppressor variable which raised the total R even though it had a negligible correlation with PWB (r=.048, p=insignificant), and a strong correlation with the other AFC predictors (see Table 4.3) that might indirectly 'suppress' or 'cleanse' one or more of the AFC predictors. Yet whether the negative correlation was a statistical effect or a theoretical explanation, further studies are needed.

4.3 Social differentiation in age-friendly characteristics

An important question within this research is whether AFC characteristics are subject to different evaluations by different socio-economic or demographic groups. MANOVA was therefore conducted to determine the overall effects of certain demographics (e.g. age range, gender, education level and type of housing, etc) on nine AFC variables. Independent sample t-test and univariate ANOVA were then used to test the significance of group differences on each AFC domain. The post-hoc tests of univariate ANOVA were conducted by using Hochberg's GT2 test to find out which conditions were significantly different from each other.

As explained in Chapter 3, although the nature of variables including age range, education level and household was considered as continuous, for an easier way to perform group comparisons, they were manipulated as categorical variables in the following analyses.

4.3.1 Age group and AFC domains

MANOVA analysis indicated that age group had a significant effect on the overall AFC measures, Wilks's Λ=.93, [$F(18, 968)$=1.97, $p<.01$], partial η^2=.04.

Concerning the effects of age group on each AFC rating independently, this was found to be the factor most affecting all the AFC dimensions in current study. The main impression from the post-hoc test is that the younger age cohorts (50-64) were less satisfied, or more critical, than the older counterparts (65-79) and the oldest-old group (80+). Table 4.5 shows the mean differences by age group in detail.

Table 4.5
Mean Difference by Age Group

	Age group		
	50-64	**65-79**	**80+**
Domain	**Mean**	**Mean**	**Mean**
Outdoor spaces and buildings	4.18*^	4.39*	4.42^
Transportation	4.16*^	4.36*	4.41^
Housing	3.73*^	3.99*	3.98^
Social participation	4.39*	4.59*	4.55
Respect and social inclusion	3.86*^	4.09*	4.12^
Civic participation and employment	3.61*	3.84*	3.87
Communication and information	4.33*	4.49*	4.35
Community support and health services	3.33*^	3.59*	3.63^
Food and shopping	4.25*	4.42*	4.39

Note:
* The mean difference between 50-64 years and 65-79 years is significant at the 0.05 level;
^ The mean difference between 50-64 years and 80+ years is significant at the 0.05 level.

First, age group had a significant effect on attitudes to Outdoor spaces and buildings for the three conditions [$F(2, 500)=6.68$, $p<.001$]. The mean score of this domain for participants aged 50-64 ($M=4.18$, $SD=0.72$) was significantly different from those aged 65-79 (mean difference=-0.21, $p<.01$) and 80+ (mean difference=-0.24, $p<.05$).

It also had a significant effect on Transportation for the three conditions [$F(2, 500)=10.11$, $p<.001$] whereas the mean score of this domain for participants aged 50-64 ($M=4.16$, $SD=0.54$) was significantly different (lower) from those aged 65-79 (mean difference=-0.20, $p<.001$) and 80+ (mean difference=-0.25, $p<.001$).

There was also a significant effect of age group on Housing [$F(2, 500)=9.01$, $p<.001$].

The mean score for respondents aged 50-64 (M=3.73, SD=0.69) was significantly different from those aged 65-79 (mean difference=-0.25, p<.001) and 80+ (mean difference=-0.25, p<.01).

Age group was found to be affecting Social participation significantly [F(2, 495)=4.34, p<.01]. The mean score for respondents aged 50-64 (M=4.39, SD=0.69) was significantly different from those aged 65-79 (mean difference=-0.20, p<.01), yet there was no significant difference to those aged 80+.

It had a significant effect on Respect and social inclusion as well [F(2, 500)=5.83, p<.01]. The mean score of this domain for respondents aged 50-64 (M=3.86, SD=0.79) was significantly different from those aged 65-79 (mean difference=-0.23, p<.01) and 80+ (mean difference=-0.26, p<.05).

Age group also had a significant effect on Civic participation and employment [F(2, 498)=4.96, p<.01]. The mean score of this domain for respondents aged 50-64 (M=3.61, SD=0.84) was significantly different from those aged 65-79 (mean difference=-0.23, p<.01) but was found to have no significant difference to those aged 80+.

Moreover, age group had a significant effect on Communication and information [F(2, 499)=3.28, p<.05]. The mean score of this domain for respondents aged 50-64 (M=4.33, SD=0.75) was significantly different from those aged 65-79 (mean difference=-0.16, p<.05) but there was no significant difference to those aged 80+.

A significant effect was found for age group on Community support and health

services [F(2, 499)=7.55, p<.001]. The mean score of this domain for respondents aged 50-64 (M=3.33, SD=0.78) was significantly different from those aged 65-79 (mean difference=-0.26; p<.001) and 80+ (mean difference=-0.30, p<.01).

Last, age group also had a significant effect on the proposed AFC domain: Food and shopping [F(2, 499)=4.73, p<.01]. The mean score for respondents aged 50-64 (M=4.25, SD=0.64) was significantly different from those aged 65-79 (mean difference=-0.18, p<.01) yet was found to have no significant difference to those aged 80+.

Above results suggested that age group did have an effect on AFC dimensions, though the mean differences were small. In general, younger participants (aged 50-64) tended to report lower AFC ratings than older cohorts (aged 65-79 and 80+), implying that they might be less satisfied with the environment compared to the older age groups. However, post-hoc test indicated that the mean differences were found only in between younger and older age groups, there was no significant difference between participants aged 65-79 and the 'oldest-old' cohort (80+), suggesting that ageing might not relate to the change of AFC ratings once respondents were 65 years or above in this study. The findings could have considerable implications for policy however as the 50-65 age group is not only numerous in Hong Kong but, as tomorrow's 'older generation', their lower evaluations may mean they will be more critical and less accepting of what is provided. This may have potentially important implications for policy and for the satisfaction of tomorrow's older people in Hong Kong, as discussed in the Conclusions.

4.3.2 Gender and AFC domains

Overall, gender did not show any significant effect on the AFC domains combined in MANOVA analysis. However, when considering the mean differences among men and women on each of the AFC domain through independent sample t-test, significant difference was found on one out of nine domains, namely Social participation. Table 4.6 shows that the mean score of Social participation of men (M=4.44, SD=0.74) and of women (M=4.57, SD=0.70) was significantly different [t(495)=-2.05, p<.05]. Specifically, women tended to report higher ratings and satisfaction on Social participation than men, perhaps an unsurprising finding.

Table 4.6
Mean Difference by Gender

	Gender	
	Men	**Women**
Domain	**Mean**	**Mean**
Outdoor spaces and buildings	4.27	4.35
Transportation	4.28	4.31
Housing	3.85	3.93
Social participation	4.44*	4.57*
Respect and social inclusion	3.95	4.06
Civic participation and employment	3.69	3.82
Communication and information	4.41	4.42
Community support and health services	3.47	3.53
Food and shopping	4.36	4.35

Note: *p<.05.

4.3.3 Employment status and AFC domains

Another demographic variable, employment status, was found to have a significant effect on the overall AFC ratings, Wilks's Λ=.95, [$F(9, 485)=2.72$, $p<.01$], partial η^2=.05.

Regarding the group differences on each AFC variable, employment status had a significant effect on two 'hardware' domains, namely, Outdoor spaces and buildings and Housing, and on two 'software' domains, Respect and social inclusion, as well as Civic participation and employment (Table 4.7).

Table 4.7
Mean Difference by Employment Status

	Employment status	
	Employed	**Retired**
Domain	**Mean**	**Mean**
Outdoor spaces and buildings	4.10**	4.35**
Transportation	4.24	4.30
Housing	3.73*	3.92*
Social participation	4.49	4.51
Respect and social inclusion	3.80**	4.05**
Civic participation and employment	3.52**	3.80**
Communication and information	4.34	4.43
Community support and health services	3.39	3.52
Food and shopping	4.27	4.37

Note: *p<.05. **p<.01.

Concerning the Outdoor spaces and buildings domain, the mean score of participants who were working (M=4.10, SD=0.78) and of those who were retired (M=4.35, SD=0.62) was significantly different [$t(500)=-3.14$, $p<.01$].

With regard to Housing domain, the mean score of participants who were working (M=3.73, SD=0.73) and of those who were retired (M=3.92, SD=0.62) was significantly different [t(500)=-2.38, p<.05].

Furthermore, the mean score of Respect and social inclusion of the working group (M=3.80, SD=0.73) and the retired group (M=4.05, SD=0.73) was significantly different [t(500)=-2.64, p<.01].

The mean score of Civic participation and employment of participants who were working (M=3.52, SD=0.91) and those who were retired (M=3.80, SD=0.80) was significantly different [t(498)=-2.78, p<.01].

Results of the above t-tests showed that the working group tended to score the four AFC domains lower than the retired group, which also suggested the working group might feel less satisfied with the current AFC circumstances than participants who had retired.

4.3.4 Type of housing and AFC domains

There was a statistically significant difference in the overall AFC ratings based on participants' type of housing, Wilks's Λ=.97, [F(9, 485)=1.97, p<.05], partial η^2=.04.

Looking at the mean differences on each AFC score independently, type of housing had a significant effect on two AFC domains, namely, Housing as well as Community support and health services (Table 4.8).

The mean score on the Housing domain by participants from public housing (M=3.94, SD=0.63) and by those from private housing (M=3.76, SD=0.66) was significantly different [t(500)=2.83, p<.01] while the mean score of Community support and health services by participants residing in public housing (M=3.56, SD= 0.73) and by those residing in private housing (M=3.35, SD=0.84) was also significantly different [t(500)=2.75, p<.01].

Table 4.8
Mean Difference by Type of Housing

	Type of housing	
	Public housing	**Private housing**
Domain	**Mean**	**Mean**
Outdoor spaces and buildings	4.32	4.31
Transportation	4.31	4.25
Housing	3.94**	3.76**
Social participation	4.52	4.48
Respect and social inclusion	4.04	3.91
Civic participation and employment	3.78	3.72
Communication and information	4.45	4.33
Community support and health services	3.56**	3.35**
Food and shopping	4.37	4.30

Note: **p<.01.

These indicated that participants from public housing tended to rate the Housing as well as Community support and health services domains higher than those from private housing. Again, a ‘critical’ effect is noted among those who are presumably better off.

4.3.5 Education level and AFC domains

Significant differences were found among the four education levels on the overall AFC measures, Wilks's Λ=.88, [F(27, 1.41)=2.28, p<.001], partial η^2=.04.

Considering the group differences on each AFC score, a significant effect of education level was found on four 'software' domains, namely Respect and social inclusion [F(3, 496)=3.45, p<.05], Civil participation and employment [F(3, 494)=2.76, p<.05], Community support and health services [F(3, 496)=6.33, p<.001], and, Food and shopping [F(3, 496)=2.66, p<.05] (Table 4.9).

Regarding Respect and social inclusion domain, the mean score for participants who had achieved tertiary education (M=3.59, SD=0.85) was significantly different from those had no schooling (mean difference=-0.51, p<.01) and those with primary education (mean difference=-0.43, p<.05).

Concerning the Civic participation and employment domain, the mean score for the tertiary education group (M=3.34, SD=1.14) was significantly different from the no schooling group (mean difference=-0.50, p<.05).

In addition, the mean score of the Community support and health services domain for participants who attained tertiary education (M=2.93, SD=0.93) was significantly different from those who received no schooling (mean difference=-0.72, p <.001), those who had primary education (mean difference=-0.56, p<.01) and those who achieved secondary education (mean difference=-0.58, p<.001).

Regarding the Food and shopping dimension, the mean score for the tertiary education group (M=4.06, SD=1.00) was significantly different from the no schooling group (mean difference=-0.35, p<.05).

Table 4.9
Mean Difference by Education Level

	Education level			
	No schooling	**Primary**	**Secondary**	**Tertiary**
Domain	**Mean**	**Mean**	**Mean**	**Mean**
Outdoor	4.39	4.30	4.27	4.29
Transport	4.36	4.27	4.27	4.33
Housing	3.96	3.88	3.85	3.90
SocialPart	4.58	4.50	4.46	4.51
Respect	4.10*	4.03^	3.99	3.59*^
CivicEmploy	3.84*	3.76	3.78	3.34*
Info	4.34	4.49	4.40	4.22
CommHealth	3.63*	3.49^	3.51#	2.93*^#
FoodShop	4.41*	4.34	4.38	4.06*

Note:
* The mean difference between no schooling and tertiary education is significant at the 0.05 level;
^ The mean difference between primary and tertiary education is significant at the 0.05 level;
# The mean difference between secondary and tertiary education is significant at the 0.05 level.
Outdoor= Outdoor spaces and buildings; Transport= Transportation; SocialPart= Social participation; Respect= Respect and social inclusion; CivicEmploy= Civic participation and employment; Info= Communication and information; CommHealth= Community support and health services; FoodShop= Food and shopping.

Results showed that participants with higher education attainment reported lower AFC ratings, suggesting less satisfaction and/or more critical views. Post-hoc tests

pointed out participants who achieved tertiary education would tend to feel less satisfied on the four domains mentioned above than those who received no schooling particularly.

4.3.6 Household income and AFC domains

The last socio-demographic variable that found to have a significant effect on AFC domains in this study was household income. Household income appeared to be significantly affecting the overall AFC ratings, Wilks's Λ=.90, [F(27, 1.41)=2.01, p<.01], partial η^2=.04.

Regarding the mean differences on each AFC measure, there was a significant effect of household income in the domains for Respect and social inclusion [F(3, 498)=7.67, p<.001], Civic participation and employment [F(3, 496)=8.11, p<.001], and, Community support and health services [F(3, 498)=7.60, p<.001] (Table 4.10).

On the Respect and social inclusion domain, the mean score for participants with household income below $6,000 (M=4.16, SD=0.69) was significantly different from those with household income ranged $6,000-14,999 (mean difference=0.28, p<.01), and those with $15,000-29,999 (mean difference=0.31, p<.01) and those with household income $30,000 above (mean difference=0.50, p<.05).

Concerning the Civic participation and employment domain, the mean score for participants with a household income below $6,000 (M=3.94, SD=0.74) was significantly different from those with household income ranging from $6,000-14,999 (mean difference=0.30, p<.01) and those with $15,000-29,999 (mean

difference=0. 42, p<.001).

The mean score of Community support and health services for participants with household income below $6,000 (M=3.65, SD=0.77) was significantly different from those with household income from $6,000-14,999 (mean difference=0.27, p<.01), and those with $15,000-29,999 (mean difference=0.32, p<.01) and those with household income of $30,000 and above (mean difference=0.54, p<.05).

Table 4.10
Mean Difference by Total Household Income

	Total household income			
	<6,000	**6,000-14,999**	**15,000-29,999**	**>30,000**
Domain	**Mean**	**Mean**	**Mean**	**Mean**
Outdoor	4.41	4.26	4.19	4.07
Transport	4.37	4.21	4.25	4.19
Housing	3.97	3.82	3.81	3.77
SocialPart	4.57	4.43	4.48	4.31
Respect	4.16*^#	3.88*	3.85^	3.66#
CivicEmploy	3.94*^	3.63*	3.52^	3.59
Info	4.47	4.34	4.43	4.07
CommHealth	3.65*^#	3.38*	3.33^	3.12#
FoodShop	4.40	4.30	4.31	4.33

Note:
* The mean difference between <6,000 and 6,000-14,999 is significant at the 0.05 level;
^ The mean difference between <6,000 and 15,000-29,999 is significant at the 0.05 level;
# The mean difference between <6,000 and >30,000 is significant at the 0.05 level.
Outdoor= Outdoor spaces and buildings; Transport= Transportation; SocialPart= Social participation; Respect= Respect and social inclusion; CivicEmploy= Civic participation and employment; Info= Communication and information; CommHealth= Community support and health services; FoodShop= Food and shopping.

These results showed that household income did have a significant effect on, or relationship to, assessments of three AFC domains. Respondents whose household income was below $6,000 (i.e. lower-income class) tended to report higher ratings on the respect and social inclusion domains as well as community support and health services domains, especially in comparison to those with household incomes above $30,000 (i.e. the higher-income class). One way of interpreting these findings is that the higher income groups might tend to have high expectation towards the living environment and thus they reported lower scores than the lower-income respondents.

Overall assessment

Looking at the overall pattern from the above sections, the domains for Social participation, Respect and social inclusion, Community and health services together with Food and shopping were the most salient domains as predictors of PWB. Housing, Social participation, Respect and social inclusion, as well as Community and health services, displayed the most and novel (or unusual) social differentiation. To explore whether such statistical findings can be explained rather more elegantly, or at least understood more clearly, in Chapter 5 following, qualitative analyses will be presented focusing principally on these domains.

CHAPTER 5 RESEARCH FINDINGS (2)

In the previous chapter, quantitative results were presented exploring aspects of the age-friendliness of Tuen Mun, association between AFC variables and PWB, as well as social differentiation in AFC ratings. Among them, certain sub-group comparisons were found to be the most surprising (or unexpected). For example, participants from private housing and those with higher education levels and household income (who could perhaps be classified as the 'high social status group'), reported lower AFC ratings on housing and some 'software' domains like respect, provision of services than the 'low social status group'. It was initially somewhat surprising that the high social status group was less satisfied with the environment as normally this group should have more resources to make modifications or to tackle problems and likely lived in objectively better conditions. Bearing this conundrum in mind, focus groups were therefore conducted as a follow-up analysis to examine reasons behind such differences. The major discussion themes were:

1. Why did the public housing residents rate the domain for Housing relatively higher than the private housing residents?
2. Why did the participants with higher education attainment and household income tend to be less satisfied with the Respect and social inclusion domain than their counterparts?
3. Why were the participants from private housing, with higher education level and household income (i.e. the high social status group) less satisfied with the Community support and health services domain than the low social status group?

To answer above questions, two focus groups (FG) were held in which FG1 gathered participants from public estates, and with a lower education and household income, whilst FG2 participants were drawn from private housing, and persons with a tertiary education and higher household income (as discussed in Chapter 3). A main impression gained from this analysis is that these two social status groups might have different aspirations towards AFC characteristics, in which the 'higher social status' group had higher expectations of/were more critical to, environmental needs than the 'lower social status group'. It is noted that comments/explanations presented below received general agreement during the discussion among each focus group.

5.1 Differentiation on the Housing domain

First of all, in terms of the Housing domain, participants from public estates tended to rate the domain higher than those from private housing. Focus group discussions suggested two possible explanations, (i) different needs/expectations, and (ii) general improvements in infrastructure and favourable policy in public housing.

(i) Different needs/expectations

Individual perceptions and expectations could be the underlying reasons for the differentiation on this domain. Private housing residents, for example, might have higher expectations and demands of age-friendliness as they purchased their flats and invested a large sum of money, and hence felt they could be more critical of (say) how estates were managed and facilities provided. By contrast, public estate residents tended to be more 'lenient' when rating the items perhaps because they held lower expectations, and were more 'fatalistic' about their lot in life:

> ‘For us who are living in public housing, paying a low rent, the facilities here are already satisfactory, I do not hope for a club house like those in private housing, the football and basketball pitches here are the “club house”. If there should be something to be improved, I will suggest regular maintenance on the recreational facilities and a larger place for us to gather around.’ (FG1, Mr Leung, 69)

> ‘To be honest, at my age, I am always content with what I have. I came from Mainland, and endured hardships in the past, I was so poor before. Life has become better today, as long as I have a house to live, I am happy, what else do I seek?’ (FG1, Ms Ma, 64)

Past experiences therefore seemed to influence the current evaluation of place, like Ms Ma who had encountered hardships when she was young and thought the current conditions were ‘as good as she could get’. So, an individual’s life history might have an impact on needs or expectation of needs, making it easier to be contented, particularly when life had improved considerably nowadays, at least in comparison with the past.

On the other hand, in FG2 discussion, participants suggested some of the AFC items might just reflect the needs of people in low socio-economic status (SES). For instance, though they knew there were available public integrated home care services, most of these services were likely intended for low SES people, and private housing residents (who generally were better off) might not find these services easy to obtain or the waiting time was long, resulting in a lower score in this item if compared to the public estates residents. Instead, they turned to private nursing care institutions and were more concerned about the quality and the monitoring of the private services. This seems to be rather an important if subtle source of differentiation in attitudes to

AFC domains and one which could render 'city-wide' domains less reliable.

> 'I have heard of the home care services from TV programmes, but I can rarely find these (public) services or NGOs in private housing, even if there are, the waiting time will be long because of the high demand… My friend in a wheelchair cannot take care of himself, his son just hires a Filipina maid, what he is concerned with is the quality of the maid.' (FG2, Mr Lee, 68)

(ii) General improvements in infrastructure and favourable policy in public housing

FG1 stated the general enhancement of the public housing facilities might lead to disparities, for example:

> 'I have been living in Tin King (a public housing estate) for more than 20 years; the facilities here have improved a lot nowadays. There are West Rail, Light Rail, library, swimming pool, elderly centres, and you can almost find one shopping centre in each housing estate. Here it is now self-contained, in that different kinds of shops and services can be found to support my everyday life.' (FG1, Mr Leung, 69)

Perhaps surprisingly, even some FG2 participants who were from private housing did agree the environment of some public estates nowadays was getting better because the commercial services and necessary infrastructure were situated together within the walking distance in the community. In addition, evidence of improved barrier-free structures/universal design could be seen in some public housing today, making the environment more accessible to all people (see Appendix V).

> ‘The newly-built public housing estates are quite good as the government promises to promote barrier-free design (otherwise it will receive complaints). Automatic doors, ramps and lifts are built to avoid falls, even the lift has an audio device, braille and tactile signage for the disabled. By contrast, private housing may not be aware of implementing these, sometimes it is difficult to have private housing facilities improved because the renovation costs are borne by all residents, and not every one is willing to pay. Therefore, the facilities in public estates may actually be better than those, in particular, in old private housing.’ (FG2, Ms Tsang, 57)

If considering the affordability of housing, government policy which appears to favour public housing might explain the differences somewhat too. FG1 participants mentioned that the rent for public housing was acceptable, moreover, the government was helping them to pay two months’ rent. In comparison, FG2 participants were not satisfied about the property prices in the private housing market:

> ‘Nowadays the property price is high, even the Home Ownership Scheme flats are expensive too; Lung Mun Oasis is selling for more than $10,000 per sq ft.’ (FG2, Mr Lam, 67)

> ‘Even though the property price of Tuen Mun is relatively lower than that in Kowloon and Hong Kong Island, you know, the per capita income of Tuen Mun residents is also comparatively low, when calculating the expenses, about one-third or more is for the mortgage loan/rent, you will find how unaffordable the private housing is… And some people live here because they cannot support the high price in other districts, so Tuen Mun is not their first choice.’ (FG2, Ms Yeung, 57)

While the participants from FG1 were benefiting from the government subsidy, others from FG2 were disappointed with the high property prices, affordability issues

and the ineffective measures for helping them. This disparity might have lead to some score-differences in the housing domain.

5.2 Differentiation on the Respect and social inclusion domain

Findings showed that participants who had a higher education attainment and a higher household income tended to be less satisfied on the Respect and social inclusion domain. Respondents, regardless of education level and total household income, suggested that community inclusiveness was quite polarized in which one could find both friendly and disrespectful people/services. However, when participants were asked about the meaning of 'respect', one obvious difference between the two groups can be found. FG1 was concerned with the practical level, for instance, whether the public respected older persons by giving priority seats? Did people help if they see older people falling down? By comparison, those with tertiary education and higher household income, were more critical in assessing the 'images' of older people constructed by the media, and a sense of concern with stereotyping emerged:

> 'The wording used by media isn't quite positive sometimes, 50 years of age is "old"? Ha, what do you think? And they aren't using a positive attitude to portray older people, for a higher hit rate, may be?' (FG2, Ms Tsang, 57)

> 'Where I am living, there is a man who has been picking up cardboard for 30 years, raising children by his everyday hard work, he is still collecting cardboard even though life becomes better. Sometimes it isn't the matter of money as depicted by the media, it is because they are used to do so, this is a virtue of frugality. And to them, working is glorious, earning a little pocket money can make them happy and proud of their own selves. There is nothing wrong.' (FG2, Mr Lee, 68)

When evaluating the Respect and social inclusion domain, FG2 therefore seemed to be concerned not merely with practical level, but also the ideological level of respect. They were more knowledgeable of, and critical about, defining and addressing the issues of 'ageism', 'prejudice', 'stereotypes' as well as 'recognition', which were of great importance to this domain, explaining the major variation between participants with of different social status.

5.3 Differentiation on the Community support and health services domain

Though, perhaps surprisingly, Community support and health services domain scored the lowest among nine AFC domains, it should be noticed that most commented that the inadequacy of public health care services was not a regional (i.e. Tuen Mun) issue but more a territory-wide problem, regardless of respondents' demographics or location. But participants who were from private housing and had a higher education achievement as well as household income (i.e. the 'higher social status group') were less satisfied than those with 'low social status group'. Again, perhaps this was because (i) the former had a higher expectation regarding these aspects, (ii) private health care services were lacking, and (iii) mental health services were overlooked (these were specifically mentioned in FG2).

(i) Different expectations

Although both groups mentioned that public health services were insufficient (especially for older people), the low social status group tended to have a more lenient attitude and lower expectation towards these services. For example, a participant from FG1 said:

> ‘Yes, the queue is really long in the clinics no matter whether you are waiting for doctors or medicine, and you will sometimes see an unfriendly doctor. Of course they should improve the services, but under such high demand and a shortage of manpower, and don’t forget you are just paying only $45 (in outpatient clinics), waiting is inevitable. As long as the service is fairly acceptable, I will just let it go.’ (FG1, Mr Lam, 83)

Yet, the high social status group was less accepting of the long waiting time. They were more critical on the issues of lack of resources and uneven distribution of resources:

> ‘If you are better off, will you wait 3 hours to see a doctor (in public sector)? I bet you will turn to private services. The demand for services in Tuen Mun Hospital is very high, it is not just serving Tuen Mun residents, but also those from Tin Sui Wai and Yuen Long. The waiting time for cataract surgery is around one and a half years, at least, of course the better off are not satisfied with this… And usually, the better off were the taxpayers before, they will be more aware of public services.’ (FG2, Mr Lee, 68)

(ii) The lack of private health care services

Especially for better off people, the demand of private health care services might be higher, yet private health care services were relatively rarer in Tuen Mun than in other districts, making them less satisfied with the domain, for example:

> ‘Tuen Mun has no private hospital, and there are not enough (private) specialists. But I understand why there are just few specialists, they can’t make money here… And I go to Kowloon to see private doctors too.’ (FG2, Ms Tang, 57)

(iii) The neglect of mental health care services

The provision of mental health services was rarely mentioned by participants with lower education attainment but, interestingly, was discussed among FG2.

> 'Is depression an illness? In Chinese society, especially in the older generation with lower education, many may not think depression is an illness, it is just unhappiness instead. But amongst those with higher education, they know it is an illness and the consequences of ignoring it, so they are more critical of the poor provision of mental health care services.' (FG2, Ms Yeung, 57)

It seemed that the more educated participants would further critically consider mental health care to be as important as physical health services. They criticized the overlooking of mental health care services by both the government as well as the community, and some might even point out they wanted private psychiatric services but unfortunately were not supported in Tuen Mun:

> 'Middle-class or above who particularly look for psychiatric services/treatment and rehabilitation doesn't wish to get public services because that may require them to disclose too much privacy and information, so they will seek private services, but these are difficult to find.' (FG2, Ms Tsang, 57)

To summarize, the higher expectations and a more critical attitude towards the distribution of both public and private health care services might be the potential explanation of different ratings between participants with high and low social status under this domain.

Summary

Some common ground could be noticed in that respondents who were living in private housing and with a better education and higher household income tended to be less accepting of the age-friendliness in the domains discussed above. This might imply that they have another set of age-friendly criteria which are currently neglected by society. More importantly, however, that there are quite considerable social differences in assessment of AFC characteristics may imply that 'city-wide' age-friendliness may be difficult or even impossible to achieve. It seems more likely that differentiation according to social demands may lead to a subtler achievement of age friendliness. Discussion of the findings in Chapter 4 and 5, along with their implications, will be presented in the concluding Chapter 6.

CHAPTER 6 DISCUSSION AND CONCLUSIONS

This chapter presents a discussion of the findings, with their implications and makes recommendations as to what can be inferred from the research. It also discusses the limitations of the study.

6.1 The implications of social differentiation in age-friendly cities

The findings from this study showed that socio-demographic variables including age group, gender, employment status, type of housing, education level and total household income had significant effects on AFC domains. This suggests different social groups might hold different aspirations towards the concept of AFC and also the various domains.

First, the rising-old group of participants aged 50-64 were rather less satisfied with all the AFC domains than their older counterparts. Many participants from this age group were still in work, and they often needed to commute to work every day and would utilize the environmental infrastructures more frequently, and hence presumably interacted more with these domains and formed their own opinions of their adequacy. In the sample, 40% of respondents in this age group still had a job, so perhaps it was not surprising to discover that this younger old age was more demanding of the AFC domains, especially for Outdoor spaces and buildings, Transportation and Civic participation and employment, than the older retired people. Not only were they among the working group, but also as the ‘tomorrow’s older cohort’, their lower satisfaction might imply they would be more critical with their surrounding environment and welfare policies. This may place the authorities and

planners on notice that they must pay special attention to these areas of environment for tomorrow's older people, who may be more discerning and critical than today's older cohorts.

Second, gender differences were found, notably in which men reported lower ratings and satisfaction on Social participation domain than women. As noted earlier in Chapter 4, in particular Table 4.2, there were fewer or unattractive choices of activities particularly for men. This differentiation was understandable if demographic issues were considered. According to the Asia-Pacific Institute of Ageing Studies in 2006, the female to male ratio in elderly centres was 7 to 3. In 2011, the sex ratio in Hong Kong (i.e. number of males per 1000 females) of older persons was 871 (Census and Statistics Department, 2012). The predominance of female members in elderly centres and in the broader society as a result could explain why activities were predominantly designed for, or maybe oriented to, women, with fewer events responding to men's preferences, perhaps creating something of a barrier for men to participate in social activities. Hence, to encourage more participation from older men, a wider range of activities which appeal to a more diverse population should be actively developed by the relevant organizations as well as the wider community.

Third, which was also the most 'unexpected' finding, participants from private housing, with a tertiary education and a higher household income (i.e. the higher social status group), were considerably less satisfied with certain AFC domains than participants from public estates, with a lower education level and a lower household income (i.e. the lower social status group). Qualitative data from the focus groups suggested the differentiation might be due to the higher expectations held by the high

social status group. This could be further interpreted by reference to Maslow's hierarchy of needs (1943), which proposed human beings' needs are in a hierarchy in which fundamental needs are at the bottom and the 'higher level' need for self-actualization at the top. Maslow's well-known theory suggested basic needs such as physiological requirements and safety should be met before pursuing to higher-level needs like self-fulfillment (though there are cases in which a person may neglect the basic needs and strive for higher ones). In this study, the lower social status group tended to seek (or prioritize) physiological and safety needs first, such as shelter, food, provision of health services and social security, so that they would not be deprived of a standard living owing to economic barriers. However, the higher social status group, since they had already guaranteed (or could better meet) basic needs, tended to aspire to the higher hierarchical level of needs. Unlike the lower social status group, they provided more definitions or insights to AFC characteristics. For example, the term 'respect' did not only simply mean giving seats to older persons, but also recognizing older persons' past and present contributions and the absence of 'ageism' and 'stereotyping'. These somewhat different levels of expectations and needs held by two groups imply that each group might have their own set of age-friendly criteria into which policy planners should carefully look.

Not only might the different aspirations towards AFC drive the differences seen, the qualitative study suggested that differential governmental support for the two groups could also contribute to the observed differences. At present, government policy appears to be more favourable or conducive to the lower social status group. Remedies such as Old Age Living Allowance, Elderly Persons Priority Scheme in public rental housing, paying two months' rent for public housing tenants,

Comprehensive Social Security Assistance, Social Security Allowance and extra allowance are provided to supplement the living expenses of older people who are in need of financial help. By contrast, direct policy assistance to middle-class older people is limited, leaving them perhaps more 'disappointed' with the aspects especially those related to affordability of housing and community support. With current AFC variables seemingly more inclined to meeting the needs of lower social status groups, future research may well study, in particular, the environmental needs of older-age middle or higher social groups and persons, to gain a more comprehensive, or at least a more nuanced, knowledge of the differentiation.

Given the above differentiation in attitudes to age-friendliness, it may be concluded that the concept of AFC is not unidimensional, due to the heterogeneity of populations. The perception of AFC domains is likely to vary in accordance to the social group that one belongs to, as well as the social and demographic composition of the society in question. This will add valuable information to complement the Age-friendly Cities Guide that when examining the how age-friendly a city/neighbourhood is, social differentiation should be carefully considered. This is likely to be a fairly universal observation but it may have particular importance in Asian urban settings.

6.2 The importance of the social environment

In the present study, AFC domains in general were found to be positively correlated to PWB. Among them, particular importance appeared to be attached to the AFC domains Social participation, Respect and social inclusion, Community support and health services, and the newly proposed Food and shopping dimensions. These were

the most salient domains related to PWB, indicating the essential role of AFC domains and particularly the 'software'/social aspects in influencing people's PWB in later life. Similar results have also reported in the existing literature such as by Lang and Baltes, 1997; Bosworth and Schaie, 1997; Bondevik and Skogstad, 1998; Fratiglioni et al., 2000; and Findlay and McLaughlin, 2005, which all suggest that a supportive social environment helps enhance older people's psychological resources.

The results obtained in this study were also consistent with Erikson's theory of grand-generativity (Erikson et al., 1986) which suggested a person's interaction with the social environment is important for giving purpose to later life. Grand-generativity activities include those such as helping friends and neighbours, volunteering, engaging in meaningful social roles and showing concern for the wider community, all of which allow older people to be socially active and to gain self-esteem (Keyes and Ryff, 1998). This implies planning should take a holistic approach, in which it incorporates social aspects of environment in support of older people, and not just the built or 'formal' environment. Therefore, the present research data may lead to the suggestion that, to improve older people's PWB, resources can be specifically concentrated to improve social environment so as to facilitate social participation, providing opportunities to maintain social networks and harmonious relationships with the family, suitable availability of social services and support, and the like.

In addition to the eight WHO AFC domains, it is worth looking at the 'softer' aspects that are perhaps more fundamental and essential to daily living. Results showed that, after considering both demographic variables as well as WHO AFC domains, the proposed Food and shopping dimension still appeared to have a significant positive

association with PWB, suggesting older consumers' food and shopping experiences (such as the affordability of products, range/choices of food, commodity and restaurants, food assistance services for needy) were related to ageing well, and should be considered as one of the age-friendly characteristics, at least in this Chinese context.

6.3 Recommendations from the research

These implications and based on interpretation the scores on the AFC domains, some recommendations can be suggested here for policy makers, different public and non-governmental organizations, and practitioners to improve the age-friendliness of Tuen Mun.

First, although the 'hardware' design and architectural AFC domains such as Outdoor spaces and buildings, as well as Transportation, were perhaps surprisingly not the most salient determinants of PWB in the current study, they are still of great importance as older persons' daily activities are often locally-based. Indeed, physical and social environments closely influence and interact with one another. For example, age-friendly facilities and accessible transport can encourage social participation and make daily activities such as visiting doctors or local services more convenient, easy and congenial. Therefore, 'universal design' concepts and barrier-free design of facilities, including ramps, handrails, elevators with audible signals, well-signed buildings, tactile guide paths, braille and tactile signage, should be promoted and enhanced in housing estates (particularly for the old estates), buildings, recreational areas and transportation infrastructures. For example, the MTR Corporation may locally in Tuen Mun decide to add warning or audio signals when passengers are

crossing the Light Rail, for safety reasons, though equally they should be aware of concerns with noise pollution. Suggested by older respondents whom need to bring their own chairs along to parks or other resting areas, more outdoor seating with shelters and public toilets should be built so as to make outdoor activities more convenient. Respondents also pointed out the problems encountered in public transport such as incautious drivers and ‘priority seats’ performing practically no function. It is advised that public transport drivers can be trained with techniques in driving suitable for, and assisting, older passengers. And not only public transport corporations like MTR, LRT, KMB should consider to make the ‘priority seats’ more conspicuous, public education about giving seats to the needy should also be strengthened.

Second, current study shows that social environment, particularly to which can encourage social participation, is the most important factor contributing to older people’s PWB. Thus, to enhance and strengthen community action, the government does not need to do everything itself, but can act as a catalyst by providing funds to local organizations and NGOs to organize a wider range of activities for the older population. It can also facilitate participation by creating or relaxing local laws and by-laws about service provision, location and planning standards. Besides, as men reported lower satisfaction on Social participation domain than women, more diverse activities which appeal to men should be developed by the NGOs or the wider community. Interest groups can be formed, especially age-based or gender-based peer groups that share a common interest. Older people may also want to interact more with other age groups, so more intergeneration activities should be provided through schools so that they can gain respect and recognition. The adage ‘an

environment that is good for older people will also be good for other age groups' is useful for planners and service providers to bear in mind.

Given older persons' almost universal preferences discussed earlier for ageing in one's own home and familiar localities, care in the community retains its significant role in fulfilling older persons' needs. However, as reflected in the quantitative findings, present community care services (such as nursing, meal preparation, and out-patient escort) are deemed to be not sufficient, resulting in excessively long waiting lists and/or forcing those who can to travel further for some services or resort to the private sector. What is more, older persons and their caregivers may only know a little about community care services. In this study, around 15% of the respondents reported that they did not have knowledge about community care services (e.g. integrated home care services), or maybe they were not familiar with the terminology. Public education about, and promotion of, community care services which can be a viable and valuable alternative to residential care services need to be strengthened. Moreover, the absolute amounts of community care services, as well as their quality, should be raised. In Hong Kong, the government has implemented a pilot scheme on Community Care Service Voucher for the Elderly aiming to allow older persons to choose the services that suit their individual needs with the use of service vouchers. As long as the quality is assured, this policy is worth supporting as it not only has the potential to encourage more services providers to join the sector, but it may also empower older persons to make more personalized choices other than unnecessary institutionalization.

In the present study, Tuen Mun older respondents were less satisfied with the domain for Civic participation and employment, reflecting the problems of employment,

promotion and ageism they encountered in workplace. Many older people would apparently like to continue working because of financial need or the desire to feel useful, yet age has become an obstacle in retaining or seeking employment. Indeed, retirement would be preferred as a choice, rather than as mandatory (Chou and Chow, 2005). This has important policy implications as the government, as a leader in the job market and setter of regulations, should encourage companies and organizations to provide a range of job opportunities, including flexible options for part-time jobs for older people to work. Though the Labour Department has drawn up a Code of Practice on Employment to give employers and employees guidelines to prevent discrimination in workplace, it has no legal binding. In some countries like the USA, Australia, Japan and Taiwan, laws are implemented to forbid ageism to protect older workers. As emphasized by the experiences of being discriminated among the respondents, it may be now an appropriate time for the government and public to discuss and look at the issue of legislation.

Community support and health services domain was the least age-friendly domain rated by the older participants. Indeed, having adequate healthcare services and community support services is very important to older people. Apart from increasing funding to the public healthcare sector, the efficient allocation and accessibility/availability of resources are also crucial to enhance the effectiveness of services. Respondents often felt disappointed with long waiting lists of specialist out-patient clinics and the unbalanced waiting time amongst seven hospital clusters. Social differentiation was also seen as the better-off respondents often bemoaned the lack of good local private healthcare alternatives. To ensure that patients can get necessary care and treatment at the earliest time, the government and Hospital

Authority should find ways to optimize its waiting list management such as the initiative to allow patients to seek treatment in another cluster, so as to allocate resources effectively. In addition, dental care, geriatric mental services and support after hospital discharge should be increased.

6.4 Limitations to the study

There are naturally several limitations relating to the nature of, results from and inferences that may be drawn from, the present study. First, it is a relatively small-scale study, these findings are a partial view and are based on just one new town, Tuen Mun. Therefore, its findings may be less generalizable to all Hong Kong's older population or to a wider population. Second, because of the rather marked residential segregation (especially the public-private residential split in Tuen Mun), the age-friendliness may well vary according to different localities or sub-districts, especially in terms of 'hardware' domains like Outdoor spaces and buildings, Transportation and Housing, as these neighbourhoods represent different locations, provision and town planning. Thus, to complement the Sha Tin case study research conducted by the CUHK (Chau, Wong and Woo, 2012) and the present study, to better understand the reality of AFC, larger-scale studies extending to other areas of Hong Kong, and comparing different types of environments more specifically, should form part of future research in this topic.

Second, as there was a particular difficulty in finding higher social status older participants in Tuen Mun, the sample size and number of the focus groups was restricted. With just two focus groups comprising 10 participants, this small sample size is unlikely to be representative or generalizable to understand the whole picture

of the differentiation between lower and higher social status groups. Thus, the significance of explanations about the variations between different social status groups drawn from the qualitative study is limited. Future research may well include more focus groups to improve understanding of people's attitudes and social differentiation. In particular, research could valuably focus on the more 'neglected' (in research terms) older people of middle to high class, to provide deeper insights into existence of and reasons for any different attitudes to various AFC domains and components amongst different social, gender and even ethnic groups of older persons in cities such as Hong Kong.

Convenience sampling can be seen as a further limitation. Respondents from the questionnaire survey were mainly drawn from public parks, recreational areas and elderly centres, where older persons can be easily located and who themselves may therefore be amongst the relatively more socially active. This can be an important practical limitation, as it which means that the opinions of 'hidden' elderly people are neglected or even totally missed. If such people have physical or psychological impairments or disabilities, they may form a group which is likely to find a city less age-friendly. So, therefore, future research should probably adopt a more diverse recruitment strategy to include the study of 'hermit' elderly people or persons who are less socially active, or even house-bound, in order to obtain a more comprehensive picture of the older cohorts.

Finally, amongst limitations, the results in the present study may be affected by common method bias since they rely on self-reporting by older participants, not verified (say) by family or helpers, or professional assessments. Moreover, we do not have a control or comparison group to investigate if age is a unique or defining

variable. As an age-friendly city should anticipate users with different capacities, (i.e. it should be friendly for all ages and abilities), future studies may consider trying to collect and incorporate comparative data from other demographic groups such as younger population and ethnic minorities when collecting the AFC ratings as an external validation.

6.5 Conclusions

The goal of this study was to develop the understanding of age-friendly cities and the relationship with socio-cultural variables and psychological well-being in a predominantly Chinese setting. The results affirmed the significance of the existing WHO age-friendly city domains in the process of ageing and that the age-friendliness of neighbourhood, particularly the social aspects about social participation and provision of social services, has a relationship to psychological well-being. A novel finding was that the higher social status group was surprisingly less satisfied with Housing, Respect and social inclusion and Community support and health services domains than the lower social status group. Together with other sub-groups analyses, it may be concluded that the concept of age-friendly cities is not unidimensional (nor uniform city-wide). Rather, its relationships with social differentiation should be taken into consideration since different groups may hold rather different expectations towards the definition of ‘age-friendliness’ and what makes an urban area age friendly. These provide alternative and novel contributions and insights to the field of social gerontology and urban studies. They also provide thoughts for social policy for officialdom and local organizations, in helping them understanding the role of age-friendly cities in enhancing the quality of life of older persons, at least insofar as it is reflected in psychological well-being.

This study is only an initial undertaking in this complex area. As well as an academic research project, it serves as a consciousness-raising and exploratory exercise in investigating the age-friendliness of local area, emphasizing the need to consider the environment in ageing. Therefore, in future, more larger-scale and in-depth research should be carried out across different urban and peripheral districts. In this way, we can better understand the situation of our older residents, perhaps helping to make Hong Kong a more age-friendly place to live in.

APPENDIX I Questionnaire (Chinese)

Serial no.: _____

Completion: ☐ Full ☐ Partial

Mode of survey: ☐ Face-to-face ☐ Self-administered

Date of interview:	Location:	Interviewer:

嶺南大學社會學及社會政策系

「長者友善社區研究」問卷調查

1. 年齡: _____

☐ (1) 50-54 ☐ (2) 55-59 ☐ (3) 60-64 ☐ (4) 65-69

☐ (5) 70-74 ☐ (6) 75-79 ☐ (7) 80-84 ☐ (8) 85+

2. 住宅地區 (屯門區)

☐ (1) 富泰	☐ (2) 兆置	☐ (3) 兆翠	☐ (4) 安定	☐ (5) 友愛南
☐ (6) 友愛北	☐ (7) 翠興	☐ (8) 山景	☐ (9) 景興	☐ (10) 興澤
☐ (11) 新墟	☐ (12) 三聖	☐ (13) 恒福	☐ (14) 兆新	☐ (15) 悅湖
☐ (16) 兆禧	☐ (17) 湖景	☐ (18) 蝴蝶	☐ (19) 樂翠	☐ (20) 龍門
☐ (21) 新景	☐ (22) 良景	☐ (23) 田景	☐ (24) 寶田	☐ (25) 建生
☐ (26) 兆康	☐ (27) 景峰	☐ (28) 屯門市中心	☐ (29) 屯門鄉郊	☐ (30) 其他: _____

同意書

「長者友善社區研究」問卷調查

我們誠邀 閣下參與嶺南大學社會學及社會政策系「長者友善社區」的研究。

研究目的

根據世界衛生組織的「老年友好城市建設指南」檢視屯門區對長者生活的方便及友善程度。

程序

你需要完成一份有關長者友善社區的問卷。

風險

是次研究並不存有已知的風險。

利益

是次研究並不為閣下提供個人利益，但所搜集數據將提供寶貴資料，以便改善日後長者在香港各區的生活。

私隱

是次研究所收集的資料只作研究用途，個人資料將絕對保密。研究完成後，所有問卷將被銷毀。

參與及退出

參與純屬自願性質，你可隨時退出而不會對你造成負面影響。

請以 1 至 6 分為代表，回答你對以下句子的同意程度，你的意見沒有分「正確」或「錯誤」。

1	2	3	4	5	6
非常不同意	不同意	有點不同意	有點同意	同意	非常同意

請就你居住的地區評分，有 * 號題目，可就全港情況評分。

你有多同意.....

A	室外空間及建築	非常不同意	不同意	有點不同意	有點同意	同意	非常同意
1	公共地方乾淨及舒適。	1	2	3	4	5	6
2	綠化空間和戶外座位 i. 充足， ii.保養妥善及安全。	1 1	2 2	3 3	4 4	5 5	6 6
3	司機在路口及行人過路處讓行人先行。	1	2	3	4	5	6
4	單車徑與行人路分開。	1	2	3	4	5	6
5	i. 街道照明充足， ii. 而且有警察巡邏，令戶外地方安全。	1 1	2 2	3 3	4 4	5 5	6 6
6	安排特別客戶服務予有需要人士,例如長者/殘疾人士專用櫃枱。	1	2	3	4	5	6
7	i. 建築物內有清晰指示、足夠座位、無障礙升降機、斜路、扶手及防滑地板。 ii. 建築物外有清晰指示引領使用者入內。	1 1	2 2	3 3	4 4	5 5	6 6
8	室外和室內地方的公共洗手間 i. 數量充足、 ii. 乾淨及保養妥善， iii. 並設有傷殘人士洗手間。	 1 1 1	 2 2 2	 3 3 3	 4 4 4	 5 5 5	 6 6 6
B	**交通**						
9	路面交通(從住所到社區)安全及有秩序。	1	2	3	4	5	6
10	交通網絡良好，透過公共交通可以到達香港所有地區及服務地點。	1	2	3	4	5	6
11	公共交通服務可靠及班次頻密。	1	2	3	4	5	6
12	公共交通費用 i. 合理， ii. 費用有清楚寫明。 iii. 不論惡劣天氣、繁忙時間或假日，收費也是一致。	1 1 1	2 2 2	3 3 3	4 4 4	5 5 5	6 6 6
13	公共交通服務 i. 路線及班次資料完整， ii. 並列出讓殘疾人士乘搭的班次。	1 1	2 2	3 3	4 4	5 5	6 6
14	巴士/小巴/地鐵/輕鐵 i. 車廂乾淨、保養良好、	1	2	3	4	5	6

	ii. 容易上落、	1	2	3	4	5	6
	iii. 不擠逼、	1	2	3	4	5	6
	巴士/地鐵/輕鐵 iv. 有優先使用座位。	1	2	3	4	5	6
	v. 乘客會讓座予有需要人士。	1	2	3	4	5	6
15	車站 i. 有蓋，	1	2	3	4	5	6
	ii. 有充足座位。	1	2	3	4	5	6
16	有專為殘疾人士而設的交通服務(如復康巴士)。	1	2	3	4	5	6
17	司機 i. 在指定車站及緊貼行人路停車，方便乘客上落，	1	2	3	4	5	6
	ii. 並先等待乘客坐好才開車。	1	2	3	4	5	6
18	在公共交通不完善的地方提供其他接載服務(如村巴、樓巴)。	1	2	3	4	5	6
19	的士 i. 可以擺放輪椅及助行器，	1	2	3	4	5	6
	ii. 收費合理。	1	2	3	4	5	6
	iii. 司機有禮並樂於助人。	1	2	3	4	5	6
20	馬路保養妥善，照明充足。	1	2	3	4	5	6
C	**住所**						
21	房屋數量足夠。	1	2	3	4	5	6
22	房屋價錢合理。	1	2	3	4	5	6
23	住所鄰近社區服務設施。	1	2	3	4	5	6
24	住所房間和通道有足夠空間及平地可以自由活動。	1	2	3	4	5	6
25	i. 長者可改裝家居(如增設扶手、小斜台)，	1	2	3	4	5	6
	ii. 並有價錢相宜物料供應。	1	2	3	4	5	6
	iii. 供應商亦了解長者室內住所環境需要。	1	2	3	4	5	6
26	i. 為體弱長者提供綜合家居護理服務(如健康、個人照顧和家務)。	1	2	3	4	5	6
	ii. 同時也為殘疾人士及有特殊需要的家庭提供此服務。	1	2	3	4	5	6
	iii. 服務的申請條件/門檻不會過高，	1	2	3	4	5	6
	iv. 收費合理，	1	2	3	4	5	6
	v. 輪候時間不會太長。	1	2	3	4	5	6
27	院舍照顧服務足夠。	1	2	3	4	5	6
D	**社會參與**						
28	社區活動可以一個人或者與朋友一同參加。	1	2	3	4	5	6
29	活動和參觀景點 i. 費用合理，	1	2	3	4	5	6
	ii. 並無隱藏或附加收費。	1	2	3	4	5	6
30	完善地提供 i. 有關活動的資料，包括場地的無障礙設施及	1	2	3	4	5	6
	ii. 前往方法。	1	2	3	4	5	6
31	提供多元化活動吸引不同喜好的長者參與。	1	2	3	4	5	6

32	在區內不同場地(例如文娛中心、學校、圖書館、社區中心和公園)舉辦長者聚會。	1	2	3	4	5	6
33	少接觸外界人士能獲得可靠的外展支援服務。	1	2	3	4	5	6
E	**尊重及社會包融**						
34	各種服務會定期諮詢長者，為求服務他們更好。	1	2	3	4	5	6
35	服務人員有禮貌，樂於助人。	1	2	3	4	5	6
36	學校 i. 提供機會學習有關長者及年老的知識， ii. 並有機會讓長者參與學校活動。	1 1	2 2	3 3	4 4	5 5	6 6
37*	社會認同長者在過去及目前作出的貢獻。	1	2	3	4	5	6
38*	傳媒對長者的描述正面及無偏見。	1	2	3	4	5	6
F	**社區參與及就業**						
39	長者有一系列彈性義務工作選擇，並且得到訓練、表揚、指導及開支補償。	1	2	3	4	5	6
40*	長者員工的特質得到廣泛推崇。	1	2	3	4	5	6
41*	提倡各種具彈性並有合理報酬的工作機會給長者。	1	2	3	4	5	6
42*	禁止在職場內年齡歧視(例如在僱用、留用、晉升及培訓僱員方面)。	1	2	3	4	5	6
G	**訊息交流**						
43	資訊發佈方式簡單有效，不同年齡人士也能接收。	1	2	3	4	5	6
44	定期提供長者感興趣的資訊。	1	2	3	4	5	6
45	少接觸外界人士可以在信任的人身上，獲得有關資訊。	1	2	3	4	5	6
46*	電子設備，例如手提電話、收音機、電視機、銀行自動櫃員機及自動售票機按鍵易讀夠大，顯示的字體也夠大。	1	2	3	4	5	6
47*	電話應答系統的指示緩慢清楚，並能隨時重複收聽內容。	1	2	3	4	5	6
48	公眾場所(如政府辦事處、社區中心和圖書館)已 i. 廣泛設有電腦和上網服務供人使用， ii. 而且是免費或收費便宜的。	 1 1	 2 2	 3 3	 4 4	 5 5	 6 6
H	**社區與醫療服務**						
49	i. 公營醫療服務足夠。 ii. 私營醫療服務足夠。	1 1	2 2	3 3	4 4	5 5	6 6
50	市民不會因為經濟困難，而得不到醫療及社區支援服務。	1	2	3	4	5	6
51	住所鄰近有社區中心。	1	2	3	4	5	6
52	長者有困難時容易找到社工協助。	1	2	3	4	5	6
53	社區應變計劃(例如走火警)有考慮長者的能力及限制。	1	2	3	4	5	6
54*	墓地(包括土葬和骨灰龕)數量足夠及容易獲得。	1	2	3	4	5	6
I	**膳食及消費模式**						
55	商業服務(例如便利店、藥房、超級市場、食肆和銀行)						

	i. 地點集中， ii. 和方便。	1 1	2 2	3 3	4 4	5 5	6 6
56	i. 鄰近的商店提供種類繁多的消費品(例如日常用品、衣服)， ii. 亦有不同食肆選擇。	1 1	2 2	3 3	4 4	5 5	6 6
57	食物價錢合理。	1	2	3	4	5	6
58	不能照顧自己的長者可獲得上門膳食服務。	1	2	3	4	5	6
59	貧困長者能獲得食物支援(例如食物銀行的援助計劃)。	1	2	3	4	5	6

J. 心理健康狀況

請問你是否同意以下有關你心理狀況的說法?

	極不同意	不同意	無意見	同意	極同意
1. 我享受生活。	1	2	3	4	5
2. 我覺得自己的生活有意義。	1	2	3	4	5
3. 我可以集中精神。	1	2	3	4	5
4. 我能接受自己的外貌。	1	2	3	4	5
5. 我經常有消極的感受，如沮喪、絕望、焦慮、抑鬱。	1	2	3	4	5

受訪者資料

1. 性別: (1) ☐ 男 (2) ☐ 女

2. 婚姻狀況:
   - ☐ (1) 從未結婚
   - ☐ (2) 現在已婚
   - ☐ (3) 喪偶
   - ☐ (4) 離婚/ 分居
   - ☐ (5) 其他(請註明): _____

3. 是否育有子女?

☐ (1) 無子女

☐ (2) 有 → 子女現居:
   - ☐ (1) 香港
   - ☐ (2) 內地
   - ☐ (3) 海外(請註明): _____

4. 教育程度:
   - ☐ (1) 未受教育/學前教育(幼稚園)
   - ☐ (2) 小學
   - ☐ (3) 初中
   - ☐ (4) 高中
   - ☐ (5) 預科
   - ☐ (6) 專上教育: 文憑/證書課程
   - ☐ (7) 專上教育: 副學位課程
   - ☐ (8) 專上教育: 學位課程或以上
   - ☐ (9) 專業培訓課程/學徒

5. 居所類型:
   - ☐ (1) 公營房屋
     - ☐ (1) 租住(如公屋、長者屋)
     - ☐ (2) 補助出售單位(如居屋)
   - ☐ (2) 私人房屋
   - ☐ (3) 鄉郊村屋
   - ☐ (4) 其他(如老人院)(請註明): _____

6. 你的房屋單位為誰所擁有? (如非公營房屋)

☐ (1) 本人/伴侶 ☐ (2) 子女 ☐ (3) 其他親友 ☐ (4) 房東

7. 你的居住狀況?

☐ (1) 與伴侶同住
☐ (2) 與子女同住
☐ (3) 與伴侶及子女同住
☐ (4) 獨居
☐ (5) 其他(請註明): _____

8. 你是否在職人士?

☐ (1) 是 → 你的職位/工作是(請註明): _____
☐ (2) 否 → 你是:
☐ (1) 失業人士 ☐ (2) 退休人士 ☐ (3) 家庭主婦
☐ (4) 學生 ☐ (5) 其他(請註明): _____

9. 一般來說，你覺得自己的健康是:

☐ (1) 差 ☐ (2) 一般 ☐ (3) 好 ☐ (4) 很好 ☐ (5) 非常好

10. 你有否照顧六十五歲或以上長者的經驗?

☐ (1) 沒有 ☐ (2) 有 → 被照顧者是誰? _____

11. 你有沒有足夠的金錢來應付日常開支?

☐ (1) 非常不足夠 ☐ (2) 不足夠 ☐ (3) 剛足夠 ☐ (4) 足夠有餘
☐ (5) 非常充裕

12. 你的家庭住戶每月收入約港幣多少元? (包括你及所有同住家庭成員的收入，生果金及綜緩亦計算在內) 如沒有收入，你每月可使用的儲蓄約多少元?

☐ (1) <2,000
☐ (2) 2,000-3,999
☐ (3) 4,000-5,999
☐ (4) 6,000-7,999
☐ (5) 8,000-9,999
☐ (6) 10,000-14,999
☐ (7) 15,000-19,999
☐ (8) 20,000-24,999
☐ (9) 25,000-29,999
☐ (10) 30,000-39,999
☐ (11) 40,000-59,999
☐ (12) >=60,000
☐ (13) 未能確定

全問卷完畢，謝謝

APPENDIX II Questionnaire (English)

Serial no.: _____

Completion: ☐ Full ☐ Partial

Mode of survey: ☐ Face-to-face ☐ Self-administered

Date of interview:	Location:	Interviewer:

Department of Sociology & Social Policy

Survey on Age-friendly Cities

1. Age : _____

☐ (1) 50-54 ☐ (2) 55-59 ☐ (3) 60-64 ☐ (4) 65-69

☐ (5) 70-74 ☐ (6) 75-79 ☐ (7) 80-84 ☐ (8) 85+

2. District of residence (Tuen Mun)

☐(1)Fu Tai ☐(2)Siu Chi ☐(3)Siu Tsui ☐(4)On Ting ☐(5)Yau Oi South

☐(6)Yau Oi North ☐(7)Tsui Hing ☐(8)Shan King ☐(9)King Hing ☐(10)Hing Tsak

☐(11)San Hui ☐(12)Sam Shing ☐(13)Hanford ☐(14)Siu Sun ☐(15)Yuet Wu

☐(16)Siu Hei ☐(17)Wu King ☐(18)Butterfly ☐(19)Lok Tsui ☐(20)Lung Mun

☐(21)San King ☐(22)Leung King ☐(23)Tin King ☐(24)Po Tin ☐(25)Kin Sang

☐(26)Siu Hong ☐(27)Prime View ☐(28)Tuen Mun Town Centre ☐(29)Tuen Mun Rural ☐(30)Others: _____

Please circle 1 to 6 to indicate your level of agreement with these suggestions. There are no 'correct' or 'wrong' answers.

Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6

Please rate according to your district of residence in Tuen Mun.
* Can rate according to the whole territory of Hong Kong

A	**Outdoor spaces and building**						
1	Public areas are clean and pleasant.	1	2	3	4	5	6
2	Green spaces and outdoor seating are						
	i. sufficient in number,	1	2	3	4	5	6
	ii. well-maintained and safe.	1	2	3	4	5	6
3	Drivers give way to pedestrians at intersections and pedestrian crossings.	1	2	3	4	5	6
4	Cycle paths are separate from pavements.	1	2	3	4	5	6
5	Outdoor safety is promoted by						
	i. good street lighting and	1	2	3	4	5	6
	ii. police patrols.	1	2	3	4	5	6
6	Special customer service arrangements are provided, such as separate queues or service counters for older people.	1	2	3	4	5	6
7	i. Buildings are well-signed inside, with sufficient seating, accessible elevators, ramps, railings and stairs, and non-slip floors.	1	2	3	4	5	6
	ii. Buildings are well-signed outside to lead people to enter.	1	2	3	4	5	6
8	Public toilets outdoors and indoors are						
	i. sufficient in number,	1	2	3	4	5	6
	ii. clean and well-maintained,	1	2	3	4	5	6
	iii. and accessible.	1	2	3	4	5	6
B	**Transportation**						
9	Traffic flow (from home to community) is safe for older people.	1	2	3	4	5	6
10	All city areas and services are accessible by public transport, with good connections.	1	2	3	4	5	6

11	Public transportation is reliable and frequent.	1	2	3	4	5	6
12	Public transportation costs are						
	i. affordable,	1	2	3	4	5	6
	ii. clearly displayed.	1	2	3	4	5	6
	iii. The costs are consistent under bad weather, peak hours and holidays.	1	2	3	4	5	6
13	Complete information is provided to users about						
	i. routes and schedules,	1	2	3	4	5	6
	ii. list frequency of public transportation services for people with disabilities.	1	2	3	4	5	6
14	Buses/Minibuses/MTR/LRT are						
	i. clean, well-maintained,	1	2	3	4	5	6
	ii. accessible,	1	2	3	4	5	6
	iii. not overcrowded,	1	2	3	4	5	6
	Buses/MTR/LRT iv. have priority seating,	1	2	3	4	5	6
	v. passengers give the priority seats to people in need.	1	2	3	4	5	6
15	Bus stops i. are covered,	1	2	3	4	5	6
	ii. are provided with sufficient seating.	1	2	3	4	5	6
16	Specialized transportation is available for disabled people.	1	2	3	4	5	6
17	Drivers i. stop at designated stops and beside the curb to facilitate boarding,	1	2	3	4	5	6
	ii. wait for passengers to be seated before driving off.	1	2	3	4	5	6
18	A voluntary transport service is available where public transportation is too limited.	1	2	3	4	5	6
19	Taxis can i. accommodate wheelchair and walking aids,	1	2	3	4	5	6
	ii. are affordable, and	1	2	3	4	5	6
	iii. drivers are courteous and helpful.	1	2	3	4	5	6
20	Roads are well-maintained, with good lighting.	1	2	3	4	5	6
C	**Housing**						
21	There is sufficient housing for older people.	1	2	3	4	5	6
22	Housing is affordable for older people.	1	2	3	4	5	6
23	Housing is located close to services and the rest of the community.	1	2	3	4	5	6

24	Interior spaces and level surfaces allow freedom of movement in all rooms and passageways.	1	2	3	4	5	6
25	Home modification options and supplies are						
	i. available,	1	2	3	4	5	6
	ii. affordable,	1	2	3	4	5	6
	iii. providers understand the needs of older people.	1	2	3	4	5	6
26	Integrated home care services (which include health and personal care and housekeeping)						
	i. are available for older people,	1	2	3	4	5	6
	ii. people with disabilities and needy families.	1	2	3	4	5	6
	iii. Services are easy to obtain,	1	2	3	4	5	6
	iv. with reasonable service charges.	1	2	3	4	5	6
	v. The waiting time is not too long.	1	2	3	4	5	6
27	Sufficient residential care services are provided to seniors who cannot be adequately taken care of at home.	1	2	3	4	5	6
D	**Social participation**						
28	Activities and events can be attended alone or with a companion.	1	2	3	4	5	6
29	Activities and attractions are						
	i. affordable,	1	2	3	4	5	6
	ii. with no hidden or additional participation costs.	1	2	3	4	5	6
30	Good information about						
	i. activities and events is provided, including	1	2	3	4	5	6
	ii. details about accessibility of facilities and transportation options.	1	2	3	4	5	6
31	A wide variety of activities is offered to appeal to a diverse population of older people.	1	2	3	4	5	6
32	Gatherings including older people are held in various local community spots (such as recreation centers, schools, libraries, community centers and parks).	1	2	3	4	5	6
33	People at risk of social isolation are supported by consistent outreach services.	1	2	3	4	5	6
E	**Respect and social inclusion**						
34	Older people are regularly consulted by different services on how to serve them better.	1	2	3	4	5	6

35	Service staff are courteous and helpful.	1	2	3	4	5	6
36	Schools i. provide opportunities to learn about ageing and older people, and ii. involve older people in school activities.	1 1	2 2	3 3	4 4	5 5	6 6
37*	The community recognizes the present and past contributions of older people.	1	2	3	4	5	6
38*	Older people are depicted positively and without stereotyping.	1	2	3	4	5	6
F	**Civic participation and employment**						
39	A range of flexible options for older volunteers is available, with training, recognition, guidance and compensation for personal costs.	1	2	3	4	5	6
40*	The qualities of older employees are well promoted.	1	2	3	4	5	6
41*	A range of flexible and appropriately paid opportunities for older people to work is promoted.	1	2	3	4	5	6
42*	Age discrimination is forbidden in the workplace (i.e. HR hiring, retention, promotion and training).	1	2	3	4	5	6
G	**Communication and information**						
43	A basic, effective communication system reaches people of all ages.	1	2	3	4	5	6
44	Regular information and broadcasts of interest to older people are offered.	1	2	3	4	5	6
45	People at risk of social isolation get relevant information from trusted individuals.	1	2	3	4	5	6
46*	Electronic equipment, such as mobile phones, radios, televisions, ATM and ticket machines, has readable large buttons and big lettering.	1	2	3	4	5	6
47*	Telephone answering services give instructions slowly and clearly and tell callers how to repeat the message at any time.	1	2	3	4	5	6
48	There is i. wide public access to computers and the Internet, ii. at no or minimal charge, in public places such as government offices, community centers and libraries.	1 1	2 2	3 3	4 4	5 5	6 6

H	**Community support and health services**						
49	i. An adequate range of public health care services is offered. ii. An adequate range of private health care services is offered.	1 1	2 2	3 3	4 4	5 5	6 6
50	People will not be deprived of health and community support services due to economic barriers.	1	2	3	4	5	6
51	A community centre is located near my residence.	1	2	3	4	5	6
52	It is easy to find social workers when older people have problems.	1	2	3	4	5	6
53	Community emergency planning takes into account the vulnerabilities and capacities of older people.	1	2	3	4	5	6
54*	There are sufficient and accessible burial sites (including niches).	1	2	3	4	5	6
I	**Food and shopping**						
55	Commercial services (including convenient shop, pharmacy, supermarket, restaurant and bank) i. are situated together ii. are accessible.	 1 1	 2 2	 3 3	 4 4	 5 5	 6 6
56	There are i. a wide range of goods (e.g. daily necessities, clothes) in nearby shops and ii. various dining options.	1 1	2 2	3 3	4 4	5 5	6 6
57	Food is affordable.	1	2	3	4	5	6
58	Older people who cannot take care of themselves are able to receive home-delivered meals.	1	2	3	4	5	6
59	Older people in poverty are able to receive food assistance services (i.e. Food Bank).	1	2	3	4	5	6

J. Psychological health status

Below are five statements with which you may agree or disagree.

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	**2**	**3**	**4**	**5**

1. I enjoy life.	1	2	3	4	5
2. I feel my life to be meaningful.	1	2	3	4	5
3. I am able to concentrate.	1	2	3	4	5
4. I am able to accept my bodily appearance.	1	2	3	4	5
5. I often have negative feelings such as blue moods, despair, anxiety, depression.	1	2	3	4	5

Respondent's information

1. Gender: ☐ (1) Male ☐ (2) Female

2. Marital Status: ☐ (1) Never married
   ☐ (2) Now married
   ☐ (3) Widowed
   ☐ (4) Divorced/ Separated
   ☐ (5) Others (please specify):_____

3. Do you have any children?

☐ (1) No

☐ (2) Yes → Children now live in (may tick more than one box):
   ☐ (1) Hong Kong
   ☐ (2) Mainland China
   ☐ (3) Foreign countries (please specify): _____

4. My education: ☐ (1) No schooling or pre-primary (Kindergarten)
   ☐ (2) Primary
   ☐ (3) Lower secondary
   ☐ (4) Upper secondary
   ☐ (5) Sixth form
   ☐ (6) Post-secondary: Diploma or certificate
   ☐ (7) Post-secondary: Sub-degree course
   ☐ (8) Post-secondary: Degree course or above
   ☐ (9) Training or apprenticeship

5. Type of housing I live in:
   ☐ (1) Public housing
      ☐ (1) rental (e.g. public rental housing / housing for elderly)
      ☐ (2) subsidized sale flats (e.g. Housing Authority or Housing Society)
   ☐ (2) Private housing
   ☐ (3) Rural village house
   ☐ (4) Others (e.g. elderly home): _____

6. Who owns your home (if not public housing)?
   ☐ (1) Me/my spouse ☐ (2) Children ☐ (3) Other relatives ☐ (4) Landlord

7. Who are you living with?

☐ (1) With spouse
☐ (2) With children
☐ (3) With spouse and children
☐ (4) Alone
☐ (5) Others (please specify): _____

8. Do you have a job now?

☐ (1) Yes → Your position is, or what work (please specify): _____
☐ (2) No → You are:
☐ (1) Unemployed ☐ (2) Retired ☐ (3) Home-maker
☐ (4) Student ☐ (5) Others (please specify): _____

9. In general, would you say your health is excellent, very good, good, fair, or poor?

☐ (1) Poor ☐ (2) Fair ☐ (3) Good ☐ (4) Very good ☐ (5) Excellent

10. Do you have any experience in looking after older people aged 65 or above?

☐ (1) No ☐ (2)Yes → Who? _____

11. Do you have sufficient money for your daily expenses?

☐ (1) Very insufficient ☐ (2) Insufficient ☐ (3) Sufficient
☐ (4) More than sufficient ☐ (5) Abundant

12. Estimated total household income per month (including income of you and your family members you are living with, OAA and CSSA); if you do not have income, please advise the savings you can spend per month:

☐ (1) <2,000
☐ (2) 2,000-3,999
☐ (3) 4,000-5,999
☐ (4) 6,000-7,999
☐ (5) 8,000-9,999
☐ (6) 10,000-14,999
☐ (7) 15,000-19,999
☐ (8) 20,000-24,999
☐ (9) 25,000-29,999
☐ (10) 30,000-39,999
☐ (11) 40,000-59,999
☐ (12) >=60,000
☐ (13) Not certain

-----THE END-----

Thank You

APPENDIX III Focus group discussion guidelines

Housing

- In your view, what make(s) an 'age-friendly housing'?
- What do you think about your living environment? Are you satisfied with it?
- In our survey, private housing residents rated the items lower than public housing residents which means they were less satisfied with their housing, what do you think?

Respect and social inclusion

- A scenario question: if you fall down on the street, will there be somebody helping you?
- What does 'respect and social inclusion' mean to you?
- Do you think Hong Kong, in general, a neighbourhood respecting older people?

Community support and health services

- Are you satisfied with the public healthcare services in Tuen Mun?
  i) by quantity; ii) by quality
- Are you satisfied with the private healthcare services in Tuen Mun?
  i) by quantity; ii) by quality
- Have you ever used the healthcare voucher? What do you think about the scheme?
- In our survey, the overall score of this domain was the lowest. The 'higher social status group', i.e. respondents from private housing, with higher education and income, tended to rate the items relatively lower than the 'low social status group', what do you think?

APPENDIX IV Mean scores of all AFC items

A	Outdoor spaces and building	Mean	SD
1	Public areas are clean and pleasant.	4.67	0.88
2	Green spaces and outdoor seating are i. sufficient in number, ii. well-maintained and safe.	4.41 4.47	1.09 1.00
3	Drivers give way to pedestrians at intersections and pedestrian crossings.	4.41	0.97
4	Cycle paths are separate from pavements.	4.36	1.09
5	Outdoor safety is promoted by i. good street lighting and ii. police patrols.	4.62 4.18	0.96 1.05
6	Special customer service arrangements are provided, such as separate queues or service counters for older people.	3.52	1.12
7	i. Buildings are well-signed inside, with sufficient seating, accessible elevators, ramps, railings and stairs, and non-slip floors. ii. Buildings are well-signed outside to lead people to enter.	4.52 4.46	0.89 0.93
8	Public toilets outdoors and indoors are i. sufficient in number, ii. clean and well-maintained, iii. and accessible.	 4.15 3.98 4.35	 1.22 1.16 1.02
B	**Transportation**		
9	Traffic flow (from home to community) is safe for older people.	4.89	0.70
10	All city areas and services are accessible by public transport, with good connections.	4.93	0.82
11	Public transportation is reliable and frequent.	4.54	0.89
12	Public transportation costs are i. affordable, ii. clearly displayed. iii. The costs are consistent under bad weather, peak hours and holidays.	3.90 4.57 4.56	1.29 0.81 0.80
13	Complete information is provided to users about i. routes and schedules, ii. list frequency of public transportation services for people with disabilities.	 4.53 3.86	 0.86 1.13
14	Buses/Minibuses/MTR/LRT are i. clean, well-maintained, ii. accessible,	4.77 4.64	0.78 0.87

	iii. not overcrowded, Buses/MTR/LRT iv. have priority seating, v. passengers give the priority seats to people in need.	3.61 4.10 4.25	1.22 1.06 1.04
15	Bus stops i. are covered, ii. are provided with sufficient seating.	4.61 3.73	0.75 1.11
16	Specialized transportation is available for disabled people.	3.63	1.05
17	Drivers i. stop at designated stops and beside the curb to facilitate boarding, ii. wait for passengers to be seated before driving off.	4.60 4.38	0.73 0.89
18	A voluntary transport service is available where public transportation is too limited.	3.69	1.05
19	Taxis can i. accommodate wheelchair and walking aids, ii. are affordable, and iii. drivers are courteous and helpful.	4.57 3.25 4.44	0.86 1.17 0.91
20	Roads are well-maintained, with good lighting.	4.61	0.83
C	**Housing**		
21	There is sufficient housing for older people.	3.51	1.18
22	Housing is affordable for older people.	3.21	1.24
23	Housing is located close to services and the rest of the community.	4.22	1.05
24	Interior spaces and level surfaces allow freedom of movement in all rooms and passageways.	4.27	0.97
25	Home modification options and supplies are i. available, ii. affordable, iii. providers understand the needs of older people.	4.17 3.45 3.17	0.96 1.12 1.13
26	Integrated home care services (which include health and personal care and housekeeping) i. are available for older people, ii. people with disabilities and needy families. iii. Services are easy to obtain, iv. with reasonable service charges. v. The waiting time is not too long.	4.48 4.38 3.88 4.10 3.59	0.81 0.85 0.95 0.96 1.12
27	Sufficient residential care services are provided to seniors who cannot be adequately taken care of at home.	3.81	1.11
D	**Social participation**		
28	Activities and events can be attended alone or with a companion.	4.81	0.85

29	Activities and attractions are i. affordable, ii. with no hidden or additional participation costs.	 4.75 4.91	 0.86 0.78
30	Good information about i. activities and events is provided, including ii. details about accessibility of facilities and transportation options.	 4.75 4.76	 0.81 0.85
31	A wide variety of activities is offered to appeal to a diverse population of older people.	4.57	0.97
32	Gatherings including older people are held in various local community spots (such as recreation centers, schools, libraries, community centers and parks).	4.48	0.95
33	People at risk of social isolation are supported by consistent outreach services.	3.83	1.01
E	**Respect and social Inclusion**		
34	Older people are regularly consulted by different services on how to serve them better.	3.99	1.06
35	Service staff are courteous and helpful.	4.52	0.90
36	Schools i. provide opportunities to learn about ageing and older people, and ii. involve older people in school activities.	3.52 3.48	1.30 1.28
37*	The community recognizes the present and past contributions of older people.	4.22	0.98
38*	Older people are depicted positively and without stereotyping.	4.19	1.05
F	**Civic participation and employment**		
39	A range of flexible options for older volunteers is available, with training, recognition, guidance and compensation for personal costs.	4.14	0.99
40*	The qualities of older employees are well promoted.	3.85	1.02
41*	A range of flexible and appropriately paid opportunities for older people to work is promoted.	3.51	1.16
42*	Age discrimination is forbidden in the workplace (i.e. HR hiring, retention, promotion and training).	3.53	1.17
G	**Communication and information**		
43	A basic, effective communication system reaches people of all ages.	4.60	0.93

44	Regular information and broadcasts of interest to older people are offered.	4.26	0.93
45	People at risk of social isolation get relevant information from trusted individuals.	3.93	0.96
46*	Electronic equipment, such as mobile phones, radios, televisions, ATM and ticket machines, has readable large buttons and big lettering.	4.49	0.87
47*	Telephone answering services give instructions slowly and clearly and tell callers how to repeat the message at any time.	4.34	0.96
48	There is i. wide public access to computers and the Internet, ii. at no or minimal charge, in public places such as government offices, community centers and libraries.	4.58 4.74	1.06 1.00
H	**Community support and health services**		
49	i. An adequate range of public health care services is offered. ii. An adequate range of private health care services is offered.	3.02 3.97	1.25 1.12
50	People will not be deprived of health and community support services due to economic barriers.	3.61	1.25
51	A community centre is located near my residence.	4.07	1.02
52	It is easy to find social workers when older people have problems.	3.66	1.05
53	Community emergency planning takes into account the vulnerabilities and capacities of older people.	3.41	1.09
54*	There are sufficient and accessible burial sites (including niches).	2.61	1.16
I	**Food and consumption patterns**		
55	Commercial services (including convenient shop, pharmacy, supermarket, restaurant and bank) i. are situated together ii. are accessible.	 4.94 4.96	 0.78 0.77
56	There are i. a wide range of goods (e.g. daily necessities, clothes) in nearby shops and ii. various dining options.	 4.82 4.71	 0.83 0.89
57	Food is affordable.	3.11	1.14

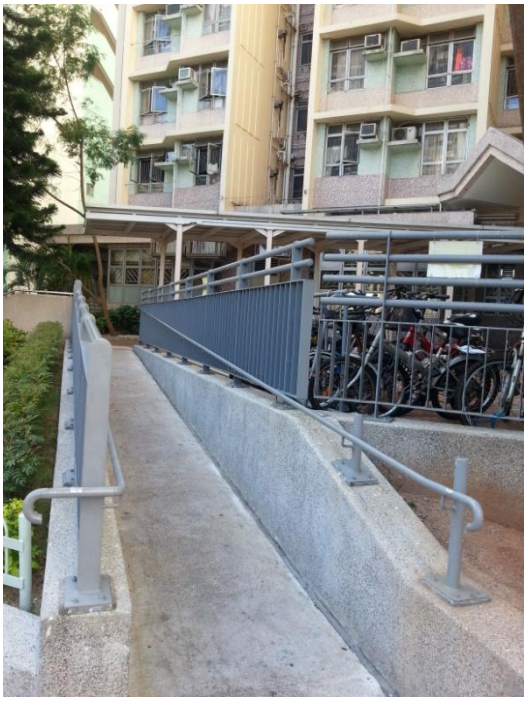
58	Older people who cannot take care of themselves are able to receive home-delivered meals.	3.40	0.93
59	Older people in poverty are able to receive food assistance services (i.e. Food Bank).	3.82	0.97

* Can rate according to the whole territory of Hong Kong

6-point Likert scale (1= ‘strongly disagree’; 6= ‘strongly agree’)

APPENDIX V Photographs

Barrier-free design in public estates:



Ramps in Fu Tai estate

Guide paths to market

Elevators in Leung King shopping centre

Ramp at the entrance

Community centre/ facilities block in public estate:

Insufficient outdoor seating - older people bringing their own chairs:

Inside the Light Rail:

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