



賽馬會齡活城市
Jockey Club Age-friendly City

Jockey Club

Age-friendly City Project

Final Assessment Report

Tuen Mun



Miu Fat Buddhist Monastery

Initiated and funded by:



The Hong Kong Jockey Club Charities Trust

Project partner:



Lingnan 嶺南大學
University 香港 Hong Kong



亞太老年學研究中心
Asia-Pacific Institute
of Ageing Studies



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November 2021

Submitted by

**Asia-Pacific Institute of Ageing Studies
Lingnan University**

Initiated and funded by:



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同心 同步 同進 RIDING HIGH TOGETHER

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1. INTRODUCTION

Jockey Club Age-friendly City Project

The Hong Kong Jockey Club Charities Trust (The Trust) has taken a proactive role in responding to population ageing. In 2015, to address the ageing issues in Hong Kong, the Trust initiated the Jockey Club Age-friendly City Project (JCAFC Project) in partnership with four local gerontology research institutes, namely the CUHK Jockey Club Institute of Ageing of The Chinese University of Hong Kong, the Sau Po Centre on Ageing of The University of Hong Kong, the Institute of Active Ageing of The Hong Kong Polytechnic University and the Asia-Pacific Institute of Ageing Studies of Lingnan University.

The objectives of the project include 1) to assess the age-friendliness of each district and build the momentum for developing an age-friendly community, 2) to recommend a framework for districts to undertake continual improvement for the well-being of senior citizens and 3) to arouse public awareness and encourage community participation in building an AFC.

Asia-Pacific Institute of Ageing Studies (APIAS)

The Asia-Pacific Institute of Ageing Studies (APIAS) of Lingnan University was established in 1998, with the aim of maximising the well-being of our older generation through high quality research work and collaboration with health and social services practitioners, service users, policy makers, charities, public and private sectors, research institutions and local and international communities.

2. EXECUTIVE SUMMARY

The Hong Kong Jockey Club Charities Trust (The Trust) initiated and funded the Jockey Club Age-friendly City Project (The Project) to build an age-friendly city (AFC) that caters to the needs of people of all ages. The objective of the final assessment was to evaluate the age-friendliness status after the implementation of The Project and to provide recommendations for the future development of an AFC. The final assessment adopted quantitative (questionnaire survey) and qualitative (focus group and field observation) methods. A total of 514 participants from 31 constituencies completed the questionnaire survey. Five focus group interviews with 28 participants were conducted. This report presents the final assessment work conducted in Tuen Mun District from October 2020 to August 2021 and compares the baseline and final assessment findings.

The typical survey respondent in the final assessment was a married woman aged 65 years or over, residing in the district for over 28 years with primary school education or below, living with family members in private housing, and receiving a monthly income of HKD\$5,999 or below but was still perceived as having adequate financial status. Around two-thirds of the respondents reported they had chronic diseases and rated their health status as fair. Around half of them had used services or participated in activities provided by elderly centres in the past three months and had experience providing care for the elderly.

The participants perceived the district to be age-friendly overall. Amongst the eight domains, the highest mean score was observed in ‘Social participation’, followed by ‘Transportation’ and ‘Communication and information’. The AFC domain with the lowest score was observed in ‘Community support and health services’ and ‘Housing’. Significantly high ratings were noted in six domains, namely ‘Housing’, ‘Respect and social inclusion’, ‘Civic participation and employment’, ‘Communication and information’ and ‘Community support and health services’. The respondents appeared to have a good sense of community. Other significant improvements in perceived age-friendliness and a strong sense of community were observed in older respondents aged 65 years or over and active members of elderly centres. In terms of the utilisation of smart technology, most respondents had a positive attitude. The participants in the focus group interviews appreciated the achievements made over the years, shared concerns regarding the current situation and provided feasible suggestions for the further enhancement of the age-friendliness of the district.

In sum, Tuen Mun District is on the right track towards becoming an age-friendly community. On the basis of the findings of the evaluation, a variety of recommendations were proposed to improve the age-friendliness continually. Further efforts should be made to fulfil the resources and service gaps between the existing situation and the needs of the elderly. In addition, we believe that the government should provide top-down support to enhance the AFC further.

3. BACKGROUND

Population ageing is a demographic trend that is widespread across the world. In Hong Kong, this trend is expected to continue and become increasingly apparent in the coming years given the rising life expectancy and declining fertility rate. Projections indicate that the elderly population aged 65 years and above will increase from 18.4% of the total population to 33.3% in 2039 and to 38.4% in 2069 (Census and Statistics Department, 2020a). The elderly dependency ratio, defined as the number of persons aged 65 years and over per 1,000 persons aged between 15 and 64 years, is estimated to rise from 265 in 2019 to 712 in 2069 (Census and Statistics Department, 2020a). The percentage of households with only elderly (aged 60 years and above) amongst all households is projected to rise from 17% in 2019 to 25.3% in 2029 (Census and Statistics Department, 2020c)

This significant change of age structure affects various aspects of the society, including shrinking labour force, heavy burden for healthcare systems and increasing demand for elderly care services and elderly-friendly physical and social environment. Undoubtedly, action needs to be taken to tackle existing challenges so that seniors can enjoy a healthy and active life.

As one of the professional support teams (PSTs), the APIAS has been providing comprehensive support for the JCAFC Project in four districts: Tsuen Wan District (Phase One), Islands District (Phase One), Tuen Mun District (Phase Two) and Yuen Long District (Phase Two). The scope of support includes conducting baseline assessment to measure the age-friendliness of the districts, developing an action plan together with the District Council (DC) and other stakeholders, providing training to AFC ambassadors, implementing district-based programmes, evaluating the effectiveness of the JCAFC Project in the districts and consolidating best practices in building an AFC.

From October 2020 to August 2021, the APIAS conducted a final assessment for the JCAFC Project in Tuen Mun District. The assessment was aimed at reviewing the changes in age-friendliness since the commencement of the Project in Tuen Mun District in 2017 and at providing recommendations for the future development of age-friendliness in the district. The findings of the assessment are presented in this report.

3.1 Introduction of Age-friendly City

The World Health Organization (WHO) launched the Global Age-friendly Cities Project in 2005. In 2006, the WHO led focus group research in 33 cities to identify which actions cities and communities can take to encourage active ageing and hence be ‘age-friendly’. On the basis of the research results, WHO developed the ‘Global Age-friendly Cities: A Guide’ and published it in 2007.

According to the Guide, an AFC encourages active ageing by optimising opportunities for health,

participation and security to enhance people's quality of life as they age. In practical terms, an AFC adapts its structures and services to be accessible to and inclusive of older people with varying needs and capacities. An AFC is not just 'elderly-friendly' but is friendly for all ages (WHO, 2007).

The features of an AFC are summarised into eight domains, namely (1) outdoor spaces and buildings, (2) transportation, (3) housing, (4) social participation, (5) respect and social inclusion, (6) civic participation and employment, (7) communication and information and (8) community support and health services (WHO, 2007). The JCAFC Project is developed on the basis of the concept of AFCs and the framework of the eight domains.

3.2 District Characteristics

Tuen Mun District is located in the western part of the New Territories, with the Castle Peak range in the west, Yuen Long in the northeast and Tsuen Wan in the southeast. The district has an area of 86.59 km² and is the sixth largest amongst the 18 districts of Hong Kong (Land Department, 2021). In the DC Election in 2019, Tuen Mun District was divided into 31 constituency areas.

3.2.1 Development history

Tuen Mun used to be a less urbanised area where residents were mostly engaged in fishing and farming. Its development started in the 1960s when it was identified for new town development. The platform in the valley between Castle Peak and the Tai Lam Hills was planned as the 'urban core' with relatively high-density residential, industrial and commercial developments, whilst the surrounding areas of the core were set to be a low-density suburban area to maintain a transition between the urban and rural landscapes (Tuen Mun and Yuen Long West District Planning Office, 2019).

Currently, Tuen Mun New Town, the major urban area of the district, is developed on the platform in the valley and the land reclaimed from Castle Peak Bay. The total development area of the New Town is 32.66 km². At the same time, 35 villages exist in Tuen Mun District (Home Affairs Department, 2020). These villages can be found in the following constituency areas: Po Tin, So Kwun Wat, Fu Tai, Lok Tsui, Lung Mun, Sam Shing, San Hui, San King, Tuen Mun Rural and Yan Tin. Most public facilities in the district are now located in the New Town. Nevertheless, the development and maintenance of the infrastructure in the rural areas are not overlooked. Tuen Mun DC has been regularly reviewing the progress of local public works and rural public works (鄉村小工程及鄉郊小工程). According to the progress report in April 2021, eight projects are under construction (Commerce, Industry and Housing Committee, 2021).

In recent years, the local government has been exploring new development plans for Tuen Mun West. The Chief Executive's 2020 Policy Address (2020) has indicated that the MTR Tuen Mun South

Extension is at the detailed planning and design stage. Preparation will continue for the planning and engineering studies on the development potential of the reclaimed land at Lung Kwu Tan and the coastal area at Tuen Mun West. Through these studies, the need for River Trade Terminal will be reviewed, with the goal of increasing the potential of the Tuen Mun West area for residential development and/or other beneficial uses.

3.2.2 Demographic and domestic household characteristics

As of 2020, Tuen Mun District has a population of 495,000 which accounts for around 6.7% of the total population of Hong Kong. The proportion of elderly aged 65 years and above is 17.2%, which is slightly lower than the Hong Kong average of 17.7% (Census and Statistics Department, 2020b). Based on the calculation of the numbers in the Projections of Population Distribution 2021–2029 (Planning Department, 2021), the percentage of people aged 65 years and above is projected to rise to 24.9% in 2029, making it the 15th place amongst the 18 districts of Hong Kong. As for domestic households, Table 1 shows the statistics of the domestic household characteristics from the Census and Statistics Department (2021).

Table 1 Statistics of domestic household characteristics

	Year 2017	Year 2020
Number of domestic households	173,000	181,000
Average domestic household size	2.7	2.7
Owner–occupiers as a proportion of total number of domestic households	54.1%	56.1%
Median monthly household income (HK\$)	24,000	24,400

Table 2 presents the number of elderly singleton household and two elderly-person households in Tuen Mun. A significant increase can be observed in the four-year period.

Table 2 Number of elderly singleton household and two elderly-person households in Tuen Mun District¹

	Year 2016	Year 2020
Elderly Singleton Households	10,800	12,500
Two Elderly-Person Households	8,200	10,900

In terms of education, 79.6% of the population in Tuen Mun District have received secondary

¹ The 2020 update is from *Social Indicators on District Welfare Needs* downloaded from https://www.swd.gov.hk/en/index/site_district/page_tuenmun/sub_districtpr/. The 2016 update is retrieved from the *Baseline Assessment Report of Tuen Mun District of Jockey Club Age-friendly City Project*

education and above. Moreover, 42.5% of the elderly aged 65 years and above report having the same educational level (Census and Statistics Department, 2020b). In 2020, the labour force participation rate of persons aged 55 years and above was 34.8% (Census and Statistics Department, 2020b).

3.2.3 Housing, transportation and social and health services

The housing types in Tuen Mun vary, and they include village houses, private housing estates, single block buildings, public housing and Home Ownership Scheme estates. According to the Housing Department, 14 estates are under the Tenants Purchase Scheme and Public Rental Housing Scheme whilst 18 estates are under the Home Ownership Scheme, Private Sector Participation Scheme and Green Form Subsidised Home Ownership Scheme. As of 30th June 2021, Tuen Mun has 57,200 public rental flats, and the population of authorised residents in such flats is 140,500 (Housing Department, 2021).

Tuen Mun District has a well-developed transport system. Rail network, buses, minibuses and taxis enable residents to easily travel within the district and outwards to other areas. Newly opened in December 2020, the Tuen Mun–Chek Lap Kok Tunnel facilitates travel between the Northwest New Territories and the Hong Kong International Airport as well as the Hong Kong–Zhuhai–Macau Bridge.

According to the Social Welfare Department, Tuen Mun has two district elderly community centres, 8 neighbourhood elderly centres, five-day care centres, two enhanced home and community care services teams, two integrated home care services teams, 22 subsidised and 41 non-subsidised residential care facilities. These social services are crucial support for the elderly. When the elderly people feel unwell, the healthcare facilities in the district, including three public hospitals and three public general outpatient clinics, are ready to provide healthcare services to the elderly.

3.2.4 Others

Various types of recreational facilities, such as town parks, indoor sports centres, gateball courts, swimming pools, barbeque sites and morning trails, have been built to enrich the elderly's daily life. Although Tuen Mun District has been experiencing rapid modern development, it does not ignore the importance of preserving scenic spots with historical and cultural significance, such as Tsing Shan Monastery and Hau Kok Tin Hau Temple.

3.3 Baseline Assessment and Key Findings

In 2017, a baseline assessment was conducted to evaluate the state of age-friendliness in Tuen Mun District and to provide suggestions for further development.

3.3.1 Methodology

Questionnaire survey, focus group interview and field observation were utilised to obtain quantitative and qualitative data. The questionnaire and interview guide were designed on the basis of the eight domains of an age-friendly city.

3.3.2 Findings and suggestions

A total of 531 respondents were involved in the questionnaire survey. Table 3 presents the mean scores for the eight AFC domains in the survey. The mean score of the overall satisfaction for all eight domains in the district was 3.96 out of 6. ‘Transportation’ and ‘Social participation’ received the highest rating whilst ‘Housing’ and ‘Community support and health services’ received the lowest. The group aged 80 years and above had the highest overall mean for all eight domains amongst the four age groups (i.e. 80 years or above, 65–79, 50–64 and 18–49) whilst the group aged 50–64 years had the lowest overall mean. The participants aged 65 years and above were more satisfied with the age-friendliness in the district than those aged 64 years and below.

Table 3 Mean scores (SD) of eight age-friendly city (AFC) domains

Eight AFC Domains	Mean (SD)
Transportation	4.30 (0.78)
Social participation	4.30 (0.92)
Respect and social inclusion	4.12 (0.93)
Outdoor spaces and buildings	4.03 (0.86)
Communication and information	4.02 (0.84)
Civic participation and employment	3.83 (0.93)
Housing	3.60 (1.10)
Community support and health services	3.50 (0.93)
Overall	3.96 (0.75)

The discussion with five focus groups (residents aged 18–59, 60–79 and 80 years or above; caregivers; and service providers) provided in-depth information about how the interviewees perceived the age-friendliness in the community. The interviewees agreed that the district has existing age-friendly infrastructure and services, such as good connections between urban areas and the light rail service, fare concession scheme that makes public transport affordable for the elderly and tailor-made and affordable activities in which the elderly can participate. The discussion echoed the relatively high ratings of ‘Transportation’ and ‘Social Participation’ in the survey. The interviewees’ sharing also explained why ‘Housing’ and ‘Community Support and Health Services’

were underperforming. The influencing factors included outdated housing design, unaffordable private housing and home maintenance and the lack of sufficiency and quality of health and community support services.

Recommendations for improvement were proposed according to the empirical evidence. Those recommendations were expected to serve as a reference for developing an action plan which could guide the Trust and various stakeholders to make joint efforts in promoting age-friendliness in the district.

3.4 Age-friendly Works in Tuen Mun District

Since 2017, the Tuen Mun District Council, Home Affairs Department, Social Welfare Department, non-governmental organisations (NGOs), community organisations and the APIAS have been exerting concerted efforts to improve the age-friendliness of Tuen Mun District.

Tuen Mun DC has been playing an active role in promoting the age-friendliness of the district. In terms of planning, the DC members were involved in the consultation during the formulation of the three-year action plan for enhancing the age-friendliness of Tuen Mun District and they initiated a working taskforce to follow-through the initiatives. PST project team provided DC professional support based on the finding of baseline assessment and global practices. As for the implementation of development strategies, the DC worked strenuously with government departments in providing adequate public services and facilities that would strengthen district administration. It also offered strong support to NGOs and the APIAS to organise various activities related to the promotion of age-friendliness. Moreover, multiple collaborative meetings with stakeholders were initiated to follow up on the progress of implementation, collect feedback and set out the future work plan. After Tuen Mun District obtained membership in the WHO Global Network for Age-Friendly Cities and Communities in December 2018, the DC continued to act as the bridge between the WHO and the local community to further enhance age-friendliness in the district.

As the government department that is responsible for implementing policies on social welfare and for developing and coordinating social welfare services, the Social Welfare Department has always paid close attention to elderly residents' well-being. It has been making great efforts to ensure the sufficiency and quality of elderly services, which serve as a strong foundation for the development of an AFC. In recent years, the Tuen Mun District Social Welfare Office ('District Office') has been contributing to the development of age-friendliness in various ways. In terms of planning and strategy development, the Assistant District Social Welfare Officer has joined multiple DC work group/committee meetings and has provided insights into the promotion strategies for the AFC concept. As for specific activity project, the District Office has also made much achievement. For example, since 2018, it has been organising echoing programmes and activities under the 'Dementia

Friendly Community Campaign’ (「認知無障礙」大行動), which benefits the development of an AFC.

Between 2018 and 2021, three batches of district-based programmes were implemented by NGOs and community organisations to build up age-friendly momentum. Nine programmes targeting more than 4,900 direct beneficiaries were conducted to cover the eight AFC domains. The organisers of the programmes included Tuen Mun Integrated Elderly Service of Evangelical Lutheran Church of Hong Kong, Yau On Lutheran Centre for the Elderly, Neighbourhood Advice-Action Council, Woo Chung District Elderly Community Centre and Ng Kam Yuk Memorial Neighbourhood Elderly Centre of Yan Oi Tong.

The first batch of programmes was mostly conducted between April 2018 to October 2018. The Age-Friendly in Tuen Mun (齡活「屯」「長」) project organised by Tuen Mun Integrated Elderly Service of the Evangelical Lutheran Church of Hong Kong and the Companion Living in Harmonious Community Programme (齊伴長者安居樂業) organised by Tuen Mun District Integrated Services Centre for the Elderly of The Neighbourhood Advice-Action Council focused on elderly residents’ need for daily activity and employment. The assistance provided for daily activities included accompanying older people in going out and in going to doctor’s appointments, home environment assessment, basic house maintenance, and house cleaning. Support for employment was provided through training courses (e.g. home-based care service; pour over coffee and latte art), as well as opportunities for work and internship. Both programmes also encouraged older people to take the initiative to form groups for purposes such as mutual support, advocacy and continuous learning. The Painless Life Programme (無痛展齡活) conducted by Yau On Lutheran Centre for the Elderly paid attention to the elderly suffering from physical pain. Support offered for the target group included health assessment, physiotherapy exercises, psycho-education lectures and mutual support groups. Together We Love Elderly @Tuen Mun programme (「屯」結腦友. 守護長者) organised by the Woo Chung District Elderly Community Centre of Yan Oi Tong focused on elderly residents’ cognition impairment. Training on support skills for cognition-impaired patients and a mobile app to assist in finding lost elderly were developed during the programme.

The second batch of programmes was mostly implemented between January and October 2019. Despite there was social unrest occurred from April to December 2019, the NGOs maintained community services as planned. During this period, the Yau On Lutheran Centre for the Elderly continued to maintain its attention to elderly people’s physical health and organised the programme named Health Project for the Elderly in Tuen Mun (屯結健耆城). The seniors and young carers were involved to broaden their knowledge on health and health services. The Woo Chung District Elderly Community Centre carried out the programme ‘Brain GO’ Digital Inclusion Elderly Community (玩轉「腦」朋友 - 長者數碼共融在社區), which taught the elderly to utilise internet

and digital technology in their daily tasks. The Neighbourhood Advice- Action Council organised the programme named Tuen Mun Oral History Theatre Project For Senior Citizen (友齡戲屯門長者社區話劇), which offered an opportunity for the elderly to show their experiences and talents through the creation of theatre and oral history scripts. It also enabled the younger generations to have a rich understanding of the seniors and hence high respect for the older generation.

The third batch of programmes was mainly completed between November 2019 and March 2021. With the outbreak of COVID-19 since January 2020, the programmes also impacted in varied ways. In this period, the Yau On Lutheran Centre for the Elderly organised the programme named Enjoy the Meaningful Life (齡活友善樂銀齡), which attempted to enrich elderly residents' daily life with various types of leisure activities. The Woo Chung District Elderly Community Centre continued its efforts to make use of modern technology (cloud system) to support the elderly and carried out the Health Star @ Cloud (星級雲端長者健康推廣在社區) programme. The Yan Oi Tong Ng Kam Yuk Memorial Neighbourhood Elderly Centre organised the programme named Wisdom Healthy Ageing (智趣反斗「耆」英). Similar to the We Love Elderly @Tuen Mun programme, Wisdom Health Ageing also focused on the cognition-impaired elderly. Workshops and training were conducted to introduce knowledge about cognition impairment to the public. Home-based individual cognition training game sessions and group sessions of art therapy, cognition training games and soothing exercises were offered to support the elderly and their carers.

Apart from the programmes implemented by NGOs and community organisations, the APIAS also led three batches of district-based programmes, namely Rural Neighbourhood Development Project in 2018 and Building and Enhancing Supportive Trend: Rural United Nations (BEST RUN) project from March 2019 to August 2021. These projects target elderly living in the rural areas of Tuen Mun District. Various services, such as home safety assessment, home modification, and home-based support services, were provided to support the elderly living in the rural areas.

Although the contents of the above programmes varied, they all shared one thing in common, that is, the participation of AFC ambassadors. Different types of trainings were provided to the ambassadors according to the objectives of the programmes. The well-trained ambassadors not only provided direct services to the elderly and carers but also shared the concepts of AFCs and encouraged wide community participation in building an AFC. The ambassadors have been empowered and their active participation has largely contributed to the improvement of age-friendliness in Tuen Mun District in the past few years.

4. METHODOLOGY

The final assessment adopted a mixed-methods approach, which included quantitative and qualitative studies. The five focus group discussions with 28 participants and a community-wide survey with 514 residents from Tuen Mun District were conducted between October 2020 and August 2021 to examine the perceived age-friendliness and sense of community in the district.

4.1 Questionnaire Survey

4.1.1 Participants and recruitment methods

For the questionnaire survey, 500 interviewees aged 18 years or above and residing in Tuen Mun District were targeted. In collecting comparable and sensible data relative to the baseline assessment, quota sampling was adopted to recruit the participants in 31 main areas based on the District Council Election Constituency Boundaries 2019 (District Council Election, 2019). A total of 13 social service agents in Tuen Mun District were invited to refer potential respondents, especially those who joined the baseline assessments, including elderly centres, elderly homes and community centres providing youth or family services. Some respondents were recruited using snowball sampling and through invitations and referrals from friends, colleagues, neighbours and family relatives.

4.1.2 Questionnaire and measurements

The questionnaire consisted of five sections covering the questions regarding community care, perceived age-friendliness, sense of community, utilisation of smart technology and respondents' data on sociodemographic information (Appendix 1). Each interview took approximately 20–40 min to complete. Most interviewees completed the questionnaires with the assistance of trained helpers through face-to-face interviews. With the outbreak of COVID-19, some participants filled in the online questionnaires by self-administration or joined interviews by Zoom or telephone.

1) Community care

Community care was measured by a 25-item scale that covered four domains, namely healthcare services, financial protection, social participation, and living arrangement. Each domain consisted of four to eight questions that were rated using a 6-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree).

2) Perceive age-friendliness

A 53-item perceived age-friendliness scale was designed in accordance with the AFC framework and a 6-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree) (WHO, 2007). The respondents were asked to rate their perceived age-friendliness of the district in eight domains, namely i) outdoor spaces and buildings, ii) transportation, iii) housing, iv) social participation, v) respect and social inclusion, vi) civic participation and employment, vii)

communication and information and viii) community support and health services.

3) Sense of community

Sense of community was measured by applying the eight-item Brief Sense of Community Scale¹ and using a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The scale consists of four dimensions, namely needs fulfilment (a perception that members' needs will be met by the community), group membership (a feeling of belonging or a sense of interpersonal relatedness), influence (a sense that a person matters or can make a difference in a community and that the community matters to its members) and emotional connection (a feeling of attachment or bonding rooted in members' shared history, place or experience).

4) Utilisation of smart technology

A 5-item scale was adopted to evaluate the utilisation of smart technology, including the usage of PCs, smart phones, Internet and smart home equipment. A 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) was applied.

5) Sociodemographic information

The information included each respondent's age, gender, education level, marital status, living arrangement, type of housing, length of residency in the community, economic activity status, monthly income, use of services provided by elderly centres, chronic diseases, and experience in caring for the elderly. The respondents reported their perceived financial status using a 5-point Likert scale ranging from 1 (very inadequate) to 5 (very adequate). Self-reported health was captured using an item adopted from Short-Form Health Survey-version 2 (SF-12v2) (Ware, Kosinski, & Keller, 1996).

4.1.3 Data analysis

Descriptive analyses were performed to identify patterns in the sociodemographic information of the respondents. Further analysis was conducted to explore the differences in mean scores (mainly including eight AFC domains, AFC subdomains, sense of community and usage of smart technology) according to the respondents' characteristics and geographical locations; specifically, independent samples t-test and analysis of variance (ANOVA) were performed. Paired samples t-test was performed for the respondents who joined the baseline and final assessments to evaluate the 3-year change. All statistical procedures were carried out using the SPSS Statistical Package version 25.0; a 5% significance level was adopted for all statistical tests. Significant differences are shown in tables or text.

4.2 Focus Group Interview

To address the need for a deep understanding of perceived age-friendliness amongst Tuen Mun residents, this study collected detailed information through focus group interviews after the implementation of the questionnaire survey.

4.2.1 Target group

The research team developed the interview guidelines on the basis of the Vancouver Protocol of the WHO Age-Friendly Cities (WHO, 2007) (Appendix 2). We aimed to conduct a total of five focus group discussions involving residents aged 18–59, 60–79 and 80 years or above; caregivers; and service providers.

1) *Residents aged 18–59 years from the public*

An age-friendly community not only enables older persons to enhance their quality of life and encourages them to be active participants in the community but also creates a healthy environment for residents of all ages. Therefore, members of the public aged 18 to 59 years were interviewed to obtain an enhanced comprehensive view of age-friendliness within the district.

2) *Residents aged 60–79 years and those aged 80 years or above*

Different ageing stages of life involve different challenges and needs. According to the Vancouver Protocol, older persons were further separated into two groups: young–old (aged 60–79 years) and old–old (aged 80 years or above) (WHO, 2007a). To evaluate the district in terms of its age-friendliness, we conducted interviews with the young–old and old–old so as to gain a clear understanding of the perceived age-friendliness of the district towards older persons at different stages.

3) *Caregivers*

Caregivers who take care of their elder family members and understand their situation and needs were interviewed to obtain information about their daily living experience in the district. Caregivers were able to express their opinions on elderly policies and caregiver support services and offer suggestions for future improvement.

4) *Service providers from elderly services*

Agency staff from district elderly community centres (DECCs) and neighbourhood elderly centres (NECs) provide a wide range of community services to the elderly in the district. These individuals were interviewed to understand their opinion on the service needs of the elderly. Moreover, service providers were able to comment on government policies and share their experiences whilst working with and providing services for the elderly.

4.2.2 Participants and recruitment methods

Convenience sampling was adopted to recruit participants. Each focus group comprised five to nine participants. Participants aged 60–79 years, residents aged 80 years or above, caregivers and eligible persons who had completed the questionnaire survey and were interested in participating in the focus group discussion were invited. In addition, residents aged 18–59 years and service providers were recruited from public and local agencies.

4.2.3 Procedure and materials

At the beginning of the focus group discussion, the moderator distributed The Project leaflets to the interviewees. The leaflets contained a brief introduction of the programme and the AFC concept. During the interviews, the moderator invited the interviewees to share their experiences and feelings about living in their communities. The interview questions covered all eight domains of the AFC framework of the WHO.

Each focus group discussion lasted 60–90 minutes. A 10–15-minute break was given in the middle of each interview. All focus group discussions were conducted between March and June 2021. The interviews were tape recorded, and full transcripts were prepared for data analysis.

4.3 Field Observation

Insightful and frequently mentioned opinions during the questionnaire survey interview were captured and summarised as part of the qualitative findings to provide a comprehensive picture of age-friendliness in the district.

5. FINDINGS

5.1 Quantitative Study

5.1.1 Participants' portfolio

A total of 514 respondents were recruited from 31 constituencies. Of the respondents, 15.4%, 8.8%, 6.6%, 6.2% and 6.2% were from Leung King, Yau Oi South, Siu Hong, On Ting and Tuen Mun Rural, respectively. A total of 223 respondents of the final assessment joined the baseline assessment as well.

As shown in Table 4, most of the respondents in Tuen Mun District were female (82.1%) and aged 65 years or above (57.0%). More than half of the respondents (51.2%) had only primary education or below. More than half of them were married (52.5%) and living with their family members (67.5%). In terms of financial and employment status, most of them were retired (60.3%). Although more than two-thirds (63.9%) were earning a monthly personal income below HKD\$5,999, only 14.8% reported inadequate or very adequate financial resources for daily expenses.

Amongst the respondents who joined both assessments, most were female (88.8%), aged 65 years or above (79.8%), had primary education or below (60.1%), were married (51.1%) and were living with their family (64.0%). More than two-thirds of them were retired (65.9%) and had monthly personal income below HKD\$5,999 (69.4%). Only 13.9% of them perceived their financial status as inadequate or very inadequate.

Table 4 Sociodemographic characteristics

		Final (N = 514)		Final & Baseline (N = 223)	
		N	%	N	%
Age:	18–49 years	57	11.1	10	4.5
	50–64 years	79	15.4	35	15.7
	65–79 years	237	46.1	113	50.7
	80 years or above	141	27.4	65	29.1
Gender:	Male	92	17.9	25	11.2
	Female	422	82.1	198	88.8
Education:	No schooling or pre-primary	74	14.4	33	14.8
	Primary	189	36.8	101	45.3
	Secondary	186	36.2	74	33.2
	Post-secondary or above	65	12.6	15	6.7
Marital status:	Never married	40	7.8	8	3.6
	Married	270	52.5	114	51.1

Living arrangement*:	Widowed	171	33.3	86	38.6
	Divorced/Separated	33	6.4	15	6.7
	Living alone	121	23.7	64	28.8
	With family members	345	67.5	142	64.0
	With others (e.g. housemate, domestic helper)	40	7.8	15	6.8
	With family members and others (e.g. housemate, domestic helper)	5	1	1	0.5
Financial adequacy:	Very inadequate	12	2.3	2	0.9
	Inadequate	64	12.5	29	13
	Adequate	359	69.8	165	74
	Fairly adequate	72	14	25	11.2
	Very adequate	7	1.4	2	0.9
Income:	Below \$2,000	62	12.1	22	9.9
	\$2,000–\$3,999	170	33.1	89	40.1
	\$4,000–\$5,999	96	18.7	43	19.4
	\$6,000–\$7,999	45	8.8	19	8.6
	\$8,000–\$9,999	21	4.1	7	3.2
	\$10,000–\$14,999	46	9	14	6.3
	\$15,000–\$19,999	28	5.5	15	6.8
	\$20,000–\$24,999	24	4.7	9	4.1
	\$25,000–\$29,999	2	0.4	0	0
	\$30,000–\$39,999	15	2.9	4	1.8
	\$40,000–\$59,999	4	0.8	0	0
	\$60,000 or above	0	0	22	9.9
	Economic Activity Status	Unemployed	2	0.4	2
Working		88	17.1	29	13
Retired		310	60.3	147	65.9
Homemaker		101	19.6	45	20.2
Student		11	2.1	0	0
Others		2	0.4	0	0

*Data were missing during data collection.

Table 5 summarises the respondents' residence and health characteristics, social participation and caregiving experience. The average number of years of residence in the district was 28.48 years (SD = 14.38). Majority of the respondents were living in either rental or subsidised public housing (67.7%). In terms of health status, around two-thirds of the respondents reported their health status as fair (57.2%) whilst others reported having chronic diseases (66.3%). Around half of them had used services or participated in activities provided by elderly centres in the past three months (53.1%) and had experience in providing care for the elderly (43.0%).

Amongst the respondents who joined both assessments, the average number of years of residence in the district was 30.17 years (SD = 12.75). Most of them were living in either rental or subsidised public housing (80.2%). As for health status, 58.3% of the respondents perceived their health status as fair (58.3%), and majority of them had chronic diseases (70.4%). More than half of them had used services or participated in activities provided by elderly centres in the past three months (55.6%). Furthermore, 43.0% of the respondents had experience in providing care for the elderly.

Table 5 Residence, health, social participation and caregiving experience

		Final (N = 514)		Final & Baseline (N = 223)			
		Mean (SD)	N	%	Mean (SD)	N	%
Residence years		28.48 (14.38)			30.17 (12.75)		
Housing type:	Public Rental Flats		159	30.9		77	34.7
	Subsidised Home Ownership Scheme Housing (HOS, TPS)		189	36.8		101	45.5
	Private Rental Housing		20	3.9		3	1.4
	Private Self-Owned Permanent Housing		97	18.9		25	11.3
	Others (e.g. Private Temporary Housing, Institution)		48	9.3		16	7.2
Self-rated health:	2.42 (0.91)				2.30 (0.89)		

Poor	44	8.6	28	12.6
Fair	294	57.2	130	58.3
Good	110	21.4	43	19.3
Very good	46	8.9	15	6.7
Excellent	20	3.9	7	3.1
Chronic illnesses	341	66.3	157	70.4
Use of elderly centres	273	53.1	124	55.6
Caregiving experience	221	43.0	96	43.0

*Data were missing during data collection.

5.1.2 Perceived age-friendliness

This section reports the perceived age-friendliness across the eight domains and subdomains, as well as significant differences in age group, gender, education background, use of elderly centres and rural–urban communities. No significant difference was found in the participants’ perceived age-friendliness across the eight domains by type of housing, self-rated health status and whether respondents had caregiver experience. By comparing the scores of eight domains from the baseline and final assessment, this study also explored the changes of perceived age-friendliness in Tuen Mun District.

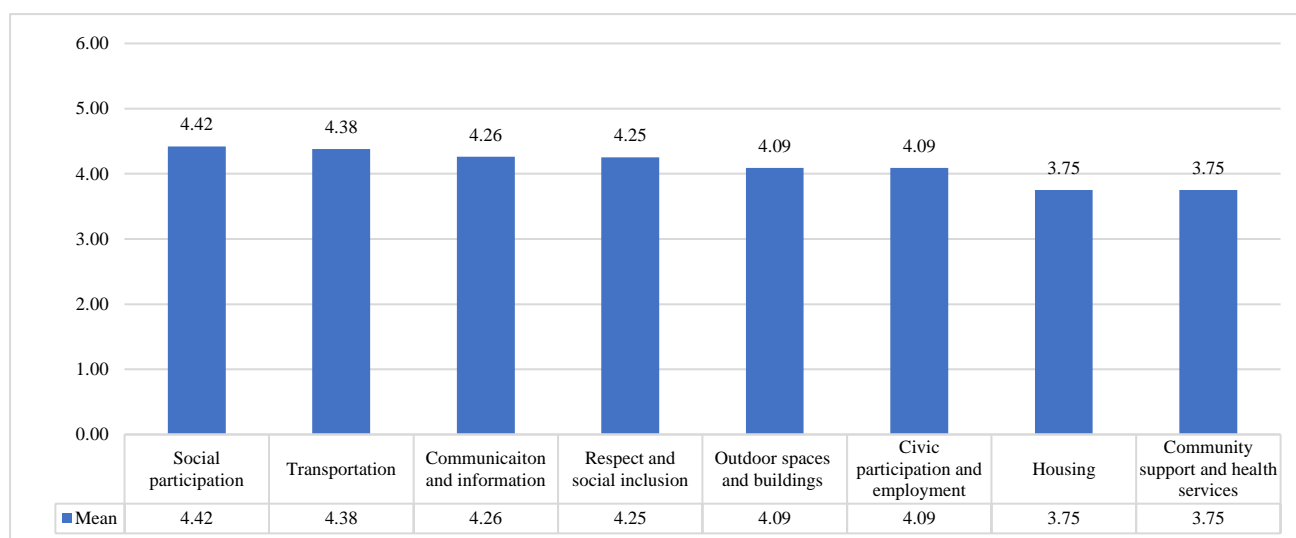
5.1.2.1 Key findings from final assessment

1) AFC domains and subdomains

Figure 1 presents the perceived age-friendliness across the eight domains. Possible responses include 1 (strongly disagree), 2 (disagree), 3 (slightly disagree), 4 (slightly agree), 5 (agree) and 6 (strongly agree).

As shown in Figure 1, the respondents perceived Tuen Mun District to be age friendly. Amongst the eight AFC domains, the highest mean score was observed in ‘Social participation’ (4.42), followed by ‘Transportation’ (4.38) and ‘Communication and information’ (4.26). The lowest score was observed in ‘Community support and health services’ (3.75) and ‘Housing’ (3.75), followed by ‘Civic participation and employment’ (4.09).

Figure 1 Perceived age-friendliness in Tuen Mun District



Amongst all the subdomains, ‘Accessibility of public transport’ (4.47) had the highest mean scores, followed by ‘Availability and accessibility of social activities’ (4.44). The lowest mean score was observed in ‘Burial services’ (2.83) of the ‘Community support and health services’, which apparently lowered the satisfaction with the mentioned domain (Table 6). For the domains ‘Outdoor spaces and buildings’, ‘Transportation’, ‘Social participation’, ‘Respect and social inclusion’ and ‘communication and information’, the mean scores of all subdomains were rated above 4.

Table 6 Perceived age-friendliness by eight AFC domains and subdomains (N = 514)

	Final Mean (SD)	Subdomain rank (Across domains)
Outdoor spaces and buildings*	4.09 (0.86)	
Outdoor spaces	4.08 (0.94)	13
Buildings	4.10 (0.94)	12
Transportation	4.38 (0.76)	
Road safety and maintenance	4.33 (0.89)	7
Availability of specialised services (transport)	4.20 (0.99)	9
Comfort to use public transport	4.41 (0.86)	3
Accessibility of public transport	4.47 (0.85)	1
Housing*	3.75 (1.04)	
Affordability and accessibility of housing	3.67 (1.11)	18
Environment of housing	3.83 (1.16)	17
Social participation*	4.42 (0.89)	
Facilities and settings (social participation)	4.40 (0.85)	4
Availability and accessibility of social activities	4.44 (1.05)	2

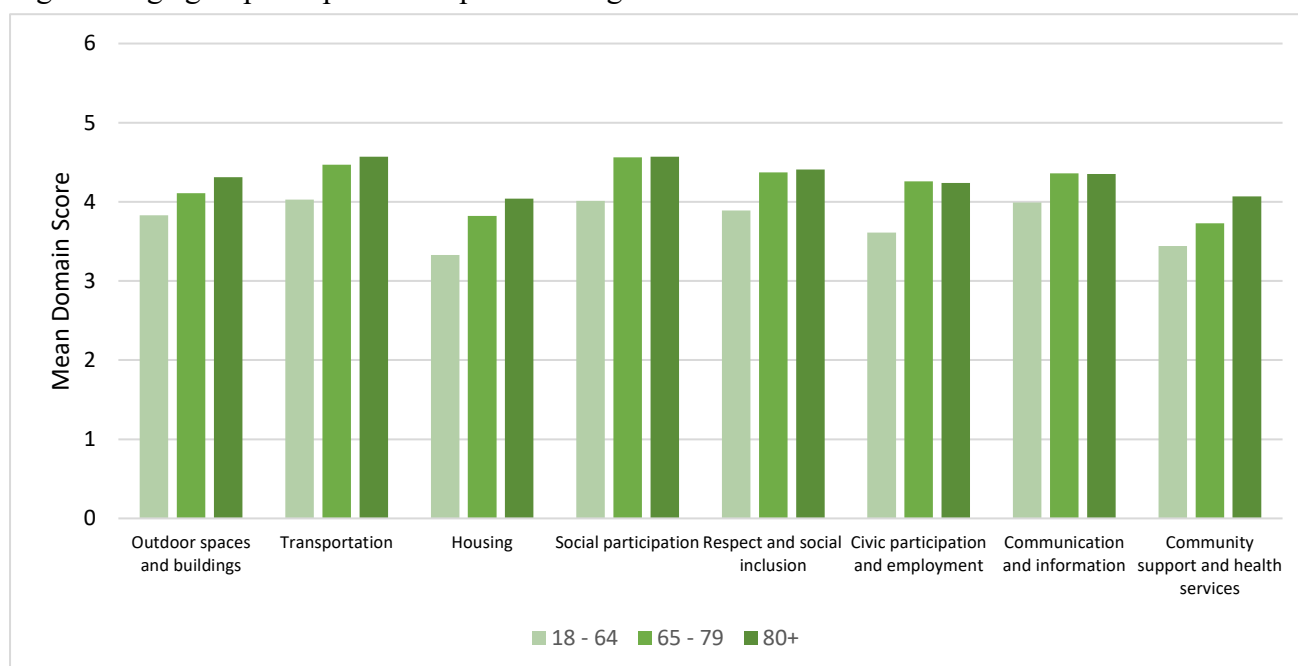
Respect and social inclusion	4.25 (0.88)	
Attitude	4.32 (0.85)	8
Opportunities for social inclusion	4.13 (1.05)	10
Civic participation and employment	4.09 (0.93)	
Civic participation	4.36 (1.11)	5
Employment	3.99 (0.97)	14
Communication and information	4.26 (0.87)	
Information	4.34 (0.90)	6
Use of communication and digital devices	4.11 (1.01)	11
Community support and health services	3.75 (0.94)	
Availability and affordability of medical/social services	3.94 (0.98)	15
Emergency support	3.87 (1.26)	16
Burial service	2.83 (1.36)	19

*Data were missing during data collection.

2) Age group

Figure 2 shows the perceived age-friendliness across the age groups. The respondents were divided into three age groups for comparison: i) 18–64 years, ii) 65–79 years and iii) 80 years or above. The respondents aged 80 years or above provided the highest scores for perceived age-friendliness in all domains, except for the ‘Communication and information’ domain. Compared with the younger respondents, people aged 65 years or above provided a higher score for perceived age-friendliness in all eight domains.

Figure 2 Age group comparison of perceived age-friendliness



As shown in Table 7, one-way ANOVA was conducted, with the age groups, i.e., 18–64 years, 65–79 years and 80 years or above, being set as the independent variables and with the means of the eight AFC domains serving as the dependent variables. The results showed significant main effects in all the eight AFC domains: ‘Outdoor spaces and buildings’ ($F(2, 507) = 11.30, p < 0.001$), ‘Transportation’ ($F(2, 511) = 22.26, p < 0.001$), ‘Housing’ ($F(2, 510) = 18.22, p < 0.001$), ‘Social participation’ ($F(2, 509) = 20.39, p < 0.001$), ‘Respect and social inclusion’ ($F(2, 511) = 16.90, p < 0.001$), ‘Civic participation and employment’ ($F(2, 510) = 26.21, p < 0.001$), ‘Communication and information’ ($F(2, 511) = 9.53, p < 0.001$) and ‘Community support and health services’ ($F(2, 511) = 16.42, p < 0.001$). Therefore, multiple comparisons were made according to the Bonferroni method. The results showed that the mean scores of the 18–64 age group in all the domains were significantly lower than those of the 65–79 age group and 80 or above age group. As for ‘Community support and health services’, the respondents from the 65–79 age group had a significantly lower rating than the 80 or above age group.

Table 7 Mean (SD) scores across age groups and results of one-way ANOVA and multiple comparisons for perceived age-friendliness

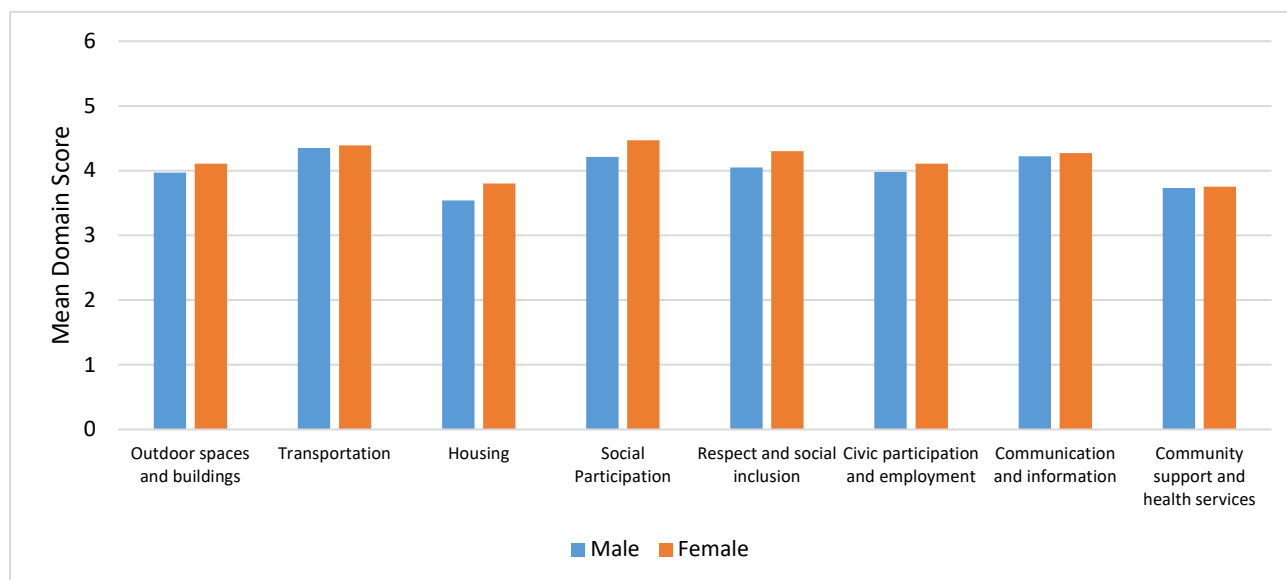
	18 - 64	65 - 79	80+	<i>F</i>	Bonferroni
Outdoor spaces and buildings	3.83 (0.79)	4.11 (0.85)	4.31 (0.87)	11.30***	18-64 < 65-79 18-64 < 80+
Transportation	4.03 (0.72)	4.47 (0.73)	4.57 (0.73)	22.26***	18-64 < 65-79 18-64 < 80+
Housing	3.33 (1.01)	3.82 (0.97)	4.04 (1.07)	18.22***	18-64 < 65-79 18-64 < 80+
Social participation	4.01 (0.88)	4.56 (0.85)	4.57 (0.86)	20.39***	18-64 < 65-79 18-64 < 80+
Respect and social inclusion	3.89 (0.79)	4.37 (0.86)	4.41 (0.89)	16.90***	18-64 < 65-79 18-64 < 80+
Civic participation and employment	3.61 (0.86)	4.26 (0.87)	4.24 (0.96)	26.21***	18-64 < 65-79 18-64 < 80+
Communication and information	3.99 (0.80)	4.36 (0.84)	4.35 (0.92)	9.53***	18-64 < 65-79 18-64 < 80+
Community support and health services	3.44 (0.88)	3.73 (0.92)	4.07 (0.95)	16.42***	18-64 < 65-79 18-64 < 80+ 65-79 < 80+

Note: *** $p < 0.001$.

3) Gender

Figure 3 shows that the male and female respondents generally perceived Tuen Mun District as age friendly. The female respondents had a higher score for perceived age-friendliness in the community than the male respondents in all domains.

Figure 3 Gender comparison of perceived age-friendliness



The independent t-test was used to explore whether the male and female respondents were different from each other in terms of perceived age-friendliness (Table 8). The male respondents had significantly lower scores than the female respondents in three domains, namely ‘Housing’, ‘Social participation’ and ‘Respect and social inclusion’.

Table 8 Mean (SD) scores of males and females and results of independent t-test for perceived age-friendliness

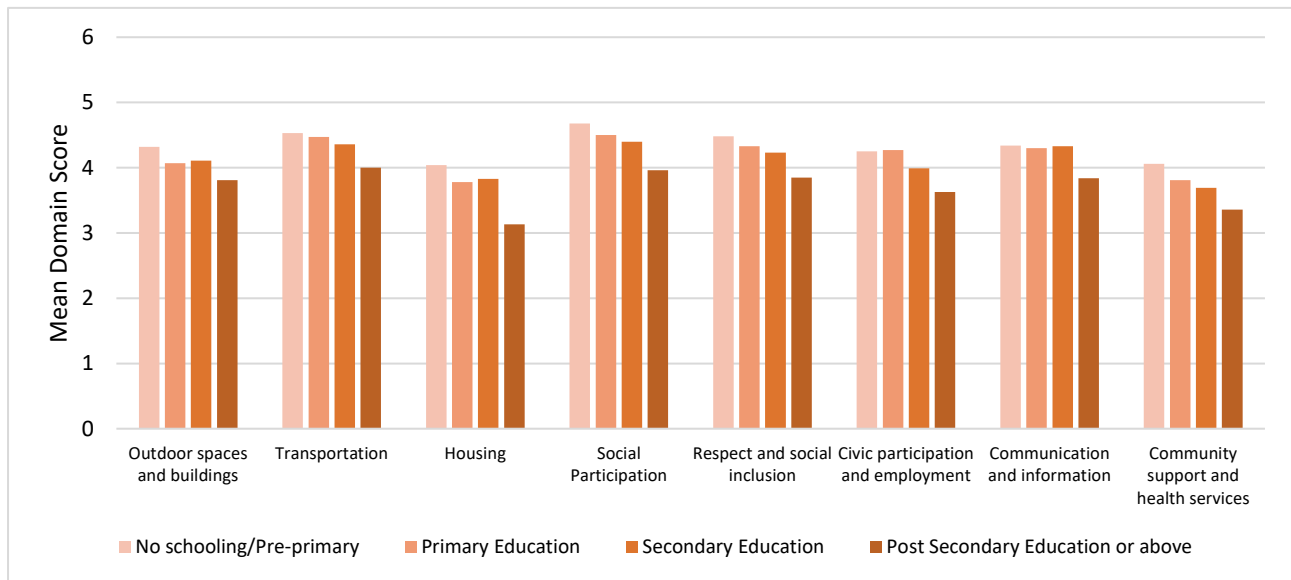
	Male	Female	T
Outdoor spaces and buildings	3.97 (0.83)	4.11 (0.87)	-1.41
Transportation	4.35 (0.70)	4.39 (0.77)	-0.44
Housing	3.54 (0.99)	3.80 (1.05)	-2.13*
Social participation	4.21 (0.85)	4.47 (0.89)	-2.49*
Respect and social inclusion	4.05 (0.85)	4.30 (0.88)	-2.45*
Civic participation and employment	3.98 (0.91)	4.11 (0.94)	-1.16
Communication and information	4.22 (0.74)	4.27 (0.90)	-0.46
Community support and health services	3.73 (0.83)	3.75 (0.97)	-0.17

Note: *p < 0.05.

4) Education background

Figure 4 shows the perceived age-friendliness across the respondents with different education backgrounds. The results indicated that the respondents with better education background had a lower score for perceived age-friendliness in the community. People with no schooling or with pre-primary education had the highest scores across all eight domains.

Figure 4 Education background comparison of perceived age-friendliness



One-way ANOVA was conducted amongst the respondents with different education backgrounds, with no schooling/pre-primary (NS), primary education (PE), secondary education (SE) and post-secondary education or above (PS) set as the independent variables and with the means of eight AFC domains set as the dependent variables (Table 9). The results showed significant main effects in all the eight AFC domains: ‘Outdoor spaces and buildings’ ($F(3, 506) = 4.10, p < 0.01$), ‘Transportation’ ($F(3, 510) = 4.79, p < 0.001$), ‘Housing’ ($F(3, 509) = 10.61, p < 0.001$), ‘Social participation’ ($F(3, 508) = 8.76, p < 0.001$), ‘Respect and social inclusion’ ($F(3, 510) = 7.04, p < 0.001$), ‘Civic participation and employment’ ($F(3, 509) = 9.59, p < 0.001$), ‘Communication and information’ ($F(3, 510) = 6.08, p < 0.001$) and ‘Community support and health services’ ($F(3, 510) = 7.07, p < 0.001$). Hence, multiple comparisons were made according to the Bonferroni method. The results showed that the mean scores of the PS group in six domains were significantly lower than those of the NS, PE and SE groups. As for ‘Outdoor spaces and buildings’, the rating of the PS group was significantly lower than that of the NS group. For ‘Community support and health services’, the rating of the PS group was significantly lower than those of the NS and PE groups.

Table 9 Mean (SD) scores of groups with different education backgrounds and results of one-way ANOVA and multiple comparisons for perceived age-friendliness

	NS	PE	SE	PS	<i>F</i>	Bonferroni
Outdoor spaces and buildings	4.32 (0.93)	4.07 (0.91)	4.11 (0.72)	3.81 (0.93)	4.10**	NS > PS
Transportation	4.53 (0.86)	4.47 (0.74)	4.36 (0.69)	4.00 (0.77)	4.79***	NS > PS PE > PS SE > PS
Housing	4.04 (1.10)	3.78 (1.06)	3.83 (0.95)	3.13 (0.94)	10.61***	NS > PS PE > PS SE > PS
Social participation	4.68 (0.90)	4.50 (0.89)	4.4 (0.85)	3.96 (0.86)	8.76***	NS > PS PE > PS SE > PS
Respect and social inclusion	4.48 (0.98)	4.33 (0.84)	4.23 (0.86)	3.85 (0.76)	7.04***	NS > PS PE > PS SE > PS
Civic participation and employment	4.25 (0.99)	4.27 (0.90)	3.99 (0.92)	3.63 (0.82)	9.59***	NS > PS PE > PS SE > PS
Communication and information	4.34 (0.98)	4.30 (0.85)	4.33 (0.82)	3.84 (0.84)	6.08***	NS > PS PE > PS SE > PS
Community support and health services	4.06 (1.06)	3.81 (0.92)	3.69 (0.89)	3.36 (0.89)	7.07***	NS > PS PE > PS

Note: ** $p < 0.01$, *** $p < 0.001$. Note: NS = No schooling/pre-primary; PE = Primary education; SE = Secondary education; PS = Post-secondary education or above.

5) Participation in elderly centres

Figure 5 and Table 10 show that regardless of participation in activities provided for the elderly, they respondents generally perceived Tuen Mun District as age friendly. An independent t-test was adopted to assess any differences in the perceived age-friendliness of those who received the services of elderly centres and those who did not. The results showed that the respondents who participated in the services of elderly centres had significantly higher scores for perceived age-friendliness across all domains (Table 10). ‘Civic participation and employment’ and ‘Social participation’ had the highest significant differences, whereas ‘Outdoor spaces and building’ had the lowest.

Figure 5 Comparison of perceived age-friendliness in terms of participation in elderly centres

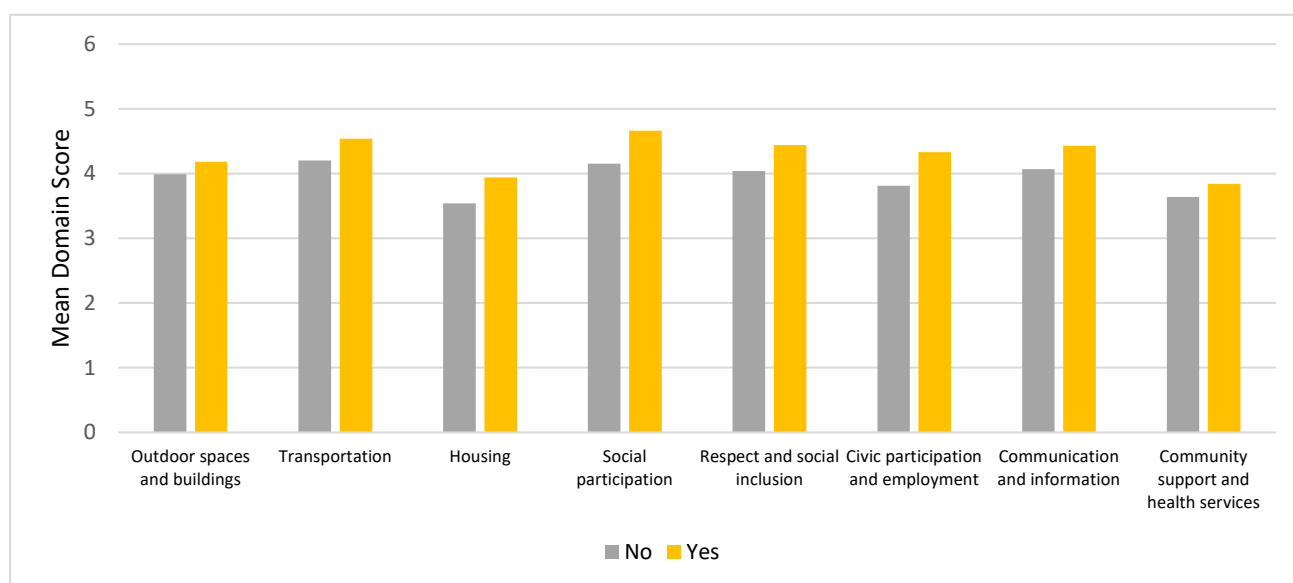


Table 10 Mean (SD) scores in terms of participation in elderly centres and results of independent t-test for perceived age-friendliness

	Participation in elderly centres		t
	No	Yes	
Outdoor spaces and buildings	3.99 (0.88)	4.18 (0.83)	-2.54*
Transportation	4.20 (0.77)	4.54 (0.72)	-5.33***
Housing	3.54 (1.01)	3.94 (1.03)	-4.36***
Social participation	4.15 (0.95)	4.66 (0.76)	-6.72***
Respect and social inclusion	4.04 (0.88)	4.44 (0.84)	-5.22***
Civic participation and employment	3.81 (0.97)	4.33 (0.83)	-6.49***
Communication and information	4.07 (0.88)	4.43 (0.83)	-4.67***
Community support and health services	3.64 (0.94)	3.84 (0.94)	-2.49*

Note: *p < 0.05, *** p < 0.001.

6) Rural–urban areas

A total of 45 respondents resided in the rural areas of Tuen Mun, whereas 469 respondents resided in the urban areas. Despite this huge difference, the independent t-test conducted to compare the differences between the two groups could only act as a reference.

The group residing in urban areas had higher scores than the group residing in rural areas in all domains. Six of the domains had significant differences whilst the other two domains ‘Transportation’ and ‘Social participation’ were not significantly different.

5.1.2.2 Comparison between baseline and final assessment

To evaluate the effectiveness of the project, we worked closely with the local social service providers in recruiting the respondents in the baseline assessment and having them participate in the final assessment. As mentioned previously, 223 pairs of respondents joined both assessments. Paired samples t-tests were conducted to eliminate the individual differences between respondents and explore the changes from baseline to final assessment.

Table 11 presents the changes in 8 AFC domains and 19 subdomains between the baseline and final assessments. In general, the respondents gave higher scores in all the domains in the final assessment. Amongst the eight domains in the baseline and final assessments, ‘Social participation’ had the highest mean (baseline: 4.43, final: 4.53), followed by ‘Transportation’ (baseline: 4.38, final: 4.45). The domain with the lowest mean and rank in both assessments was ‘Community support and health services’ (baseline: 3.53, final: 3.86). Six domains had significant improvement, including ‘Housing’ (baseline: 3.58, final: 3.88, $p < 0.001$), ‘Respect and social inclusion’ (baseline: 4.30, final: 4.35, $p = 0.038$), ‘Civic participation and employment’ (baseline: 3.94, final: 4.20, $p < 0.001$), ‘Communication and information’ (baseline: 4.10, final: 4.35, $p < 0.001$) and ‘Community support and health services’ (baseline: 3.53, final: 3.86, $p < 0.001$). Although the other three domains were marginally improved, some of the subdomains had significant changes: ‘Buildings’ (baseline: 3.98, final: 4.14, $p = 0.041$) in ‘Outdoor spaces and buildings’, ‘Availability of specialised services (transport)’ (baseline: 4.02, final: 4.24, $p = 0.009$) in ‘Transportation’ and ‘Availability and Accessibility of Social Activities’ (baseline: 4.42, final: 4.56, $p = 0.04$) in ‘Social participation’.

Table 11 Baseline and final assessment comparison of perceived age-friendliness (N = 223)

	Baseline	Rank	Final	Rank
Outdoor spaces and buildings*	4.07 (0.87)	5	4.18 (0.83)	6
Outdoor spaces	4.14 (0.06)		4.21 (0.06)	
Buildings	3.98 (0.07)		4.14 (0.06)	
Transportation	4.38 (0.78)	2	4.45 (0.73)	2
Road Safety and Maintenance	4.39 (0.57)		4.39 (0.57)	
Availability of Specialised Services (Transport)	4.02 (1.02)		4.25 (0.98)	
Comfort to Use Public Transport	4.43 (0.06)		4.48 (0.06)	
Accessibility of Public Transport	4.51 (0.93)		4.54 (0.83)	
Housing*	3.58 (1.12)	7	3.88 (0.99)	7
Affordability and Accessibility of Housing	3.57 (1.13)		3.77 (1.08)	
Environment of Housing	3.58 (1.26)		3.99 (1.09)	
Social participation*	4.43 (0.88)	1	4.53 (0.84)	1
Facilities and Settings (Social participation)	4.44 (0.95)		4.51 (0.93)	

Availability and Accessibility of Social Activities	4.42 (0.94)		4.56 (0.86)	
Respect and social inclusion	4.20 (0.91)	3	4.35 (0.81)	3
Attitude	4.24 (0.86)		4.39 (0.78)	
Opportunities for Social Inclusion	4.11 (1.15)		4.26 (0.99)	
Civic participation and employment	3.94 (0.86)	6	4.20 (0.88)	5
Civic Participation	4.43 (1.07)		4.54 (1.01)	
Employment	3.77 (0.91)		4.09 (0.93)	
Communication and information	4.10 (0.81)	4	4.35 (0.78)	3
Information	4.18 (0.85)		4.44 (0.81)	
Use of Communication and Digital Devices	3.91 (1.02)		4.16 (1.01)	
Community support and health services	3.53 (0.91)	8	3.86 (0.86)	8
Availability and Affordability of Medical/Social Services	3.83 (1.01)		4.08 (0.90)	
Emergency Support	3.65 (1.43)		4.00 (1.24)	
Burial Service	2.23 (1.23)		2.89 (1.33)	

*Data were missing during data collection.

Note: All reported numbers are mean (SD). Outcomes with significant changes are marked in bold.

Tables 12, 13 and 14 present the changes in perceived age-friendliness by gender, age group, education background, residence area, type of housing, perceived health status, social participation and caregiver experience from baseline to final assessment.

Between the baseline and final assessments, the male and female participants gave significantly high scores in ‘Housing’ (male, $p = 0.003$; female, $p = 0.008$) and ‘Community support and health services’ (male, $p = 0.038$; female, $p < 0.001$). The male respondents’ ratings for ‘Outdoor spaces and buildings’ ($p = 0.049$) were also significantly improved whilst the female respondents perceived significantly positive changes in ‘Civic participation and employment’ ($p < 0.001$) and ‘Communication and information’ ($p < 0.001$).

Older people showed more significantly positive changes in perceived age-friendliness from baseline to final assessment. The respondents aged 80 years or above gave significantly higher scores in five domains, i.e. ‘Housing’ ($p = 0.045$), ‘Respect and social inclusion’ ($p = 0.020$), ‘Civic participation and employment’ ($p = 0.007$), ‘Communication and information’ ($p = 0.005$) and ‘Community support and health services’ ($p = 0.005$). The respondents aged 65–79 years reported significant improvement in four domains, i.e. ‘Housing’ ($p < 0.001$), ‘Civic participation and employment’ ($p = 0.003$), ‘communication and information’ ($p = 0.008$) and ‘Community support and health services’ ($p < 0.001$). The younger respondents aged 18–64 years perceived no significant change in any age-friendliness domain.

Between the baseline and the final assessment, the respondents with lower education background reported significant enhancement in ‘Civic participation and employment’ (NS, $p = 0.010$; PE, $p = 0.030$) and ‘Communication and information’ (NS, $p = 0.023$; PE, $p = 0.007$). Those with primary education also perceived a significant change in ‘Community support and health services’ ($p < 0.001$). The respondents with secondary education or above reported significant improvement in ‘Transportation’ ($p = 0.035$), ‘Housing’ ($p = 0.002$) and ‘Community support and health services’ ($p = 0.010$).

The respondents living urban areas reported significantly positive changes in perceived age-friendliness in four domains, i.e. ‘Housing’ ($p = 0.002$), ‘Civic participation and employment’ ($p < 0.001$), ‘Communication and information’ ($p < 0.001$) and ‘Community support and health services’ ($p < 0.001$). The respondents from rural areas reported marginal improvement in eight perceived age-friendliness domains.

The respondents living in private housing showed the most significant improvements in all the eight domains. Those living in public housing gave significantly high ratings in ‘Civic participation’ (public rental flats, $p = 0.033$; subsidised home ownership scheme, $p = 0.004$) and ‘Community support and health services’ (public rental flats, $p = 0.001$; subsidised home ownership scheme, $p = 0.006$). The respondents under subsidised home ownership scheme also reported significant improvement in ‘Communication and information’ ($p = 0.014$).

The respondents with good perceived health status indicated great enhancement in perceived age-friendliness from baseline to final assessment. The respondents with poor health status reported significant improvement in one domain, i.e. ‘Communication and information’ ($p = 0.033$). Those who rated their health status as fair and good gave significantly high scores in four domains: ‘Housing’ (fair, $p = 0.009$; good, $p = 0.017$), ‘Civic participation and employment’ (fair, $p = 0.015$; good, $p < 0.001$), ‘Community support and health services’ (fair, $p < 0.001$; good, $p = 0.008$), ‘Communication and information’ (fair, $p = 0.004$), ‘Transportation’ (good, $p = 0.010$).

The respondents who participated in the activities provided by elderly centres in the past three months reported significant improvements in seven domains, i.e. ‘Transportation’ ($p = 0.040$), ‘Housing’ ($p < 0.001$), ‘Social participation’ ($p = 0.005$), ‘Respect and social inclusion’ ($p = 0.015$), ‘Civic participation and employment’ ($p < 0.001$), ‘Communication and information’ ($p < 0.001$) and ‘Community support and health services’ ($p < 0.001$). Those who did not use the services of elderly centres did not report any significant changes in perceived age-friendliness from baseline to final assessment.

The caregivers reported marginal improvements in the eight perceived age-friendliness domains, except 'Housing' ($p = 0.036$) whilst those who did have caregiving experience showed significant changes in six domains, i.e. 'Outdoor spaces and buildings' ($p = 0.001$), 'Housing' ($p = 0.005$), 'Respect and social inclusion' ($p = 0.036$), 'Civic participation and employment' ($p < 0.001$), 'Communication and information' ($p < 0.001$), 'Community support and health services ($p < 0.001$)'.

Table 12 Gender, age and education background—changes in perceived age-friendliness

	Gender				Age group						Education background					
	Male		Female		18–64 years		65–79 years		80 years or above		No schooling/ pre-primary		Primary education		Secondary education or above	
	Baseline	Final	Baseline	Final	Baseline	Final	Baseline	Final	Baseline	Final	Baseline	Final	Baseline	Final	Baseline	Final
Outdoor spaces and buildings	3.84 (0.91)	4.22 (0.62)	4.10 (0.86)	4.18 (0.85)	3.85 (0.73)	3.81 (0.76)	4.08 (0.90)	4.20 (0.78)	4.21 (0.88)	4.42 (0.87)	4.20 (1.01)	4.57 (0.94)	4.14 (0.89)	4.14 (0.83)	3.94 (0.76)	4.09 (0.74)
Transportation	4.45 (0.73)	4.61 (0.50)	4.38 (0.79)	4.43 (0.76)	3.97 (0.73)	4.03 (0.68)	4.41 (0.834)	4.55 (0.71)	4.63 (0.58)	4.57 (0.73)	4.60 (0.67)	4.71 (0.82)	4.52 (0.82)	4.48 (0.74)	4.15 (0.71)	4.32 (0.67)
Housing	3.00 (1.33)	3.84 (0.85)	3.65 (1.08)	3.89 (1.01)	3.61 (0.97)	3.56 (0.94)	3.47 (1.12)	3.87 (0.93)	3.73 (1.22)	4.11 (1.09)	3.83 (1.14)	4.11 (1.18)	3.61 (1.18)	3.86 (1.01)	3.44 (1.04)	3.82 (0.89)
Social participation	4.00 (0.84)	4.25 (0.93)	4.48 (0.87)	4.57 (0.83)	4.25 (0.69)	4.13 (0.78)	4.48 (0.86)	4.60 (0.84)	4.45 (1.01)	4.69 (0.82)	4.62 (0.93)	4.97 (0.66)	4.47 (0.96)	4.53 (0.90)	4.3 (0.73)	4.37 (0.78)
Respect and social inclusion	3.88 (0.92)	4.06 (0.89)	4.24 (0.91)	4.38 (0.80)	4.10 (0.69)	4.00 (0.69)	4.20 (0.92)	4.32 (0.85)	4.26 (1.02)	4.62 (0.73)	4.37 (0.95)	4.6 (0.89)	4.3 (1.01)	4.4 (0.81)	4.02 (0.74)	4.19 (0.76)
Civic participation and employment	3.79 (0.74)	3.99 (0.90)	3.95 (0.87)	4.23 (0.88)	3.64 (0.74)	3.75 (0.68)	3.98 (0.92)	4.25 (0.89)	4.07 (0.77)	4.43 (0.89)	3.89 (0.81)	4.44 (0.99)	4.14 (0.95)	4.34 (0.85)	3.72 (0.70)	3.96 (0.82)
Communication and information	4.05 (0.83)	4.33 (0.75)	4.1 (0.81)	4.35 (0.79)	4.02 (0.70)	4.11 (0.65)	4.15 (0.82)	4.39 (0.74)	4.05 (0.85)	4.44 (0.91)	3.98 (0.94)	4.53 (0.93)	4.15 (0.88)	4.41 (0.78)	4.08 (0.66)	4.22 (0.72)
Community support and health services	3.37 (0.84)	3.83 (0.78)	3.55 (0.92)	3.87 (0.90)	3.37 (0.89)	3.59 (0.74)	3.47 (0.91)	3.81 (0.85)	3.74 (0.91)	4.16 (0.97)	3.81 (0.87)	4.19 (1.10)	3.58 (0.97)	3.94 (0.82)	3.37 (0.83)	3.66 (0.83)

Note: All reported numbers are mean (SD). Outcomes with significant changes are marked in bold.

Table 13 Residence area and type of housing—changes in perceived age-friendliness

	Residence area						Type of housing					
	Rural area		Urban area		Public rental flats		Subsidised home ownership scheme (HOS, TPS)		Private housing		Others (e.g. private temporary housing, institution)	
	Baseline	Final	Baseline	Final	Baseline	Final	Baseline	Final	Baseline	Final	Baseline	Final
Outdoor spaces and buildings	3.59 (1.03)	3.89 (1.09)	4.09 (0.85)	4.20 (0.81)	4.27 (0.85)	4.41 (0.76)	3.99 (0.78)	3.99 (0.80)	3.78 (1.03)	4.21 (0.98)	4.11 (1.04)	4.30 (0.78)
Transportation	4.18 (0.85)	4.41 (0.83)	4.39 (0.78)	4.45 (0.73)	4.61 (0.73)	4.57 (0.74)	4.33 (0.76)	4.38 (0.72)	3.96 (0.80)	4.48 (0.86)	4.40 (0.78)	4.25 (0.46)
Housing	2.50 (1.04)	3.70 (1.49)	3.63 (1.10)	3.89 (0.97)	3.97 (1.11)	4.2 (0.93)	3.36 (1.03)	3.63 (0.98)	3.27 (1.24)	4.04 (1.12)	3.53 (1.11)	3.64 (0.72)
Social participation	3.63 (1.41)	4.07 (1.49)	4.46 (0.83)	4.56 (0.80)	4.58 (0.80)	4.67 (0.73)	4.38 (0.83)	4.46 (0.83)	4.16 (1.10)	4.73 (0.96)	4.40 (1.01)	4.06 (1.02)
Respect and social inclusion	3.52 (1.19)	3.88 (1.11)	4.23 (0.89)	4.37 (0.79)	4.34 (0.97)	4.51 (0.78)	4.17 (0.81)	4.30 (0.81)	3.85 (1.09)	4.24 (0.96)	4.23 (0.83)	4.03 (0.60)
Civic participation and employment	3.20 (1.01)	3.63 (1.29)	3.97 (0.84)	4.23 (0.85)	4.14 (0.82)	4.37 (0.85)	3.91 (0.78)	4.18 (0.84)	3.59 (1.13)	4.17 (1.01)	3.72 (0.77)	3.64 (0.83)
Communication and information	3.52 (1.13)	4.20 (1.16)	4.12 (0.78)	4.35 (0.77)	4.18 (0.84)	4.36 (0.79)	4.11 (0.74)	4.34 (0.75)	3.98 (1.00)	4.63 (0.73)	3.82 (0.74)	3.86 (0.87)
Community support and health services	2.97 (0.86)	3.72 (1.20)	3.56 (0.91)	3.87 (0.87)	3.67 (0.90)	4.05 (0.89)	3.46 (0.88)	3.74 (0.85)	3.18 (0.92)	3.91 (1.01)	3.90 (1.01)	3.69 (0.81)

Note: All reported numbers are mean (SD). Outcomes with significant changes are marked in bold.

Table 14 Health, social participation and caregiving experience—changes in perceived age-friendliness

	Perceived health status						Elderly centre participation				Caregiving experience			
	Poor		Fair		Good		No		Yes		No		Yes	
	Baseline	Final	Baseline	Final	Baseline	Final	Baseline	Final	Baseline	Final	Baseline	Final	Baseline	Final
Outdoor spaces and buildings	3.95 (0.85)	3.97 (0.93)	4.08 (0.87)	4.18 (0.74)	4.10 (0.87)	4.28 (0.93)	4.00 (0.90)	4.14 (0.83)	4.12 (0.83)	4.22 (0.82)	4.02 (0.86)	4.32 (0.82)	4.13 (0.87)	4.01 (0.81)
Transportation	4.48 (0.74)	4.35 (0.75)	4.42 (0.76)	4.42 (0.73)	4.28 (0.83)	4.54 (0.74)	4.30 (0.81)	4.26 (0.75)	4.46 (0.75)	4.60 (0.69)	4.37 (0.80)	4.52 (0.69)	4.41 (0.76)	4.36 (0.78)
Housing	3.21 (1.18)	3.47 (0.91)	3.60 (1.10)	3.89 (0.94)	3.69 (1.13)	4.03 (1.09)	3.60 (1.16)	3.76 (0.97)	3.55 (1.10)	3.97 (1.01)	3.65 (1.13)	3.98 (1.02)	3.48 (1.11)	3.75 (0.94)
Social participation	4.31 (0.86)	4.38 (0.92)	4.48 (0.88)	4.59 (0.81)	4.37 (0.88)	4.48 (0.88)	4.33 (0.93)	4.30 (0.94)	4.50 (0.83)	4.71 (0.71)	4.44 (0.90)	4.60 (0.84)	4.41 (0.85)	4.45 (0.84)
Respect and social inclusion	3.97 (0.95)	4.10 (0.83)	4.27 (0.92)	4.41 (0.71)	4.16 (0.87)	4.33 (0.97)	4.07 (0.99)	4.14 (0.84)	4.30 (0.83)	4.51 (0.76)	4.17 (0.94)	4.37 (0.86)	4.23 (0.88)	4.31 (0.75)
Civic participation and employment	3.93 (0.85)	4.04 (1.08)	3.99 (0.87)	4.20 (0.85)	3.82 (0.83)	4.28 (0.84)	3.82 (0.92)	3.93 (0.92)	4.03 (0.80)	4.42 (0.78)	3.93 (0.88)	4.30 (0.91)	3.94 (0.84)	4.07 (0.83)
Communication and information	3.91 (0.82)	4.32 (0.74)	4.08 (0.83)	4.34 (0.79)	4.21 (0.76)	4.38 (0.80)	4.03 (0.91)	4.14 (0.81)	4.15 (0.713)	4.51 (0.72)	4.01 (0.82)	4.35 (0.83)	4.21 (0.78)	4.34 (0.72)
Community support and health services	3.33 (0.84)	3.64 (0.76)	3.54 (0.94)	3.87 (0.87)	3.60 (0.90)	3.96 (0.96)	3.59 (0.98)	3.75 (0.88)	3.49 (0.86)	3.96 (0.88)	3.47 (0.91)	3.92 (0.94)	3.62 (0.92)	3.79 (0.81)

Note: All reported numbers are mean (SD). Outcomes with significant changes are marked in bold.

5.1.3 Sense of community

This section reports the sense of community in Tuen Mun District during the final assessment, as well as the changes in sense of community from baseline to final assessment across the three age groups, social participation and residence area. The scale consists of four dimensions, each with a possible score ranging from 2 to 10. The possible range of the total score is between 8 and 40. A higher score means a higher sense of community.

5.1.3.1 Key findings from final assessment

As shown in Table 15, the mean score of sense of community was 30.35 (SD = 5.32). Amongst the four dimensions, ‘Group membership’ received the highest mean score (8.15), followed by ‘Emotional connection’ (7.89) and ‘Need fulfilment’ (7.25).

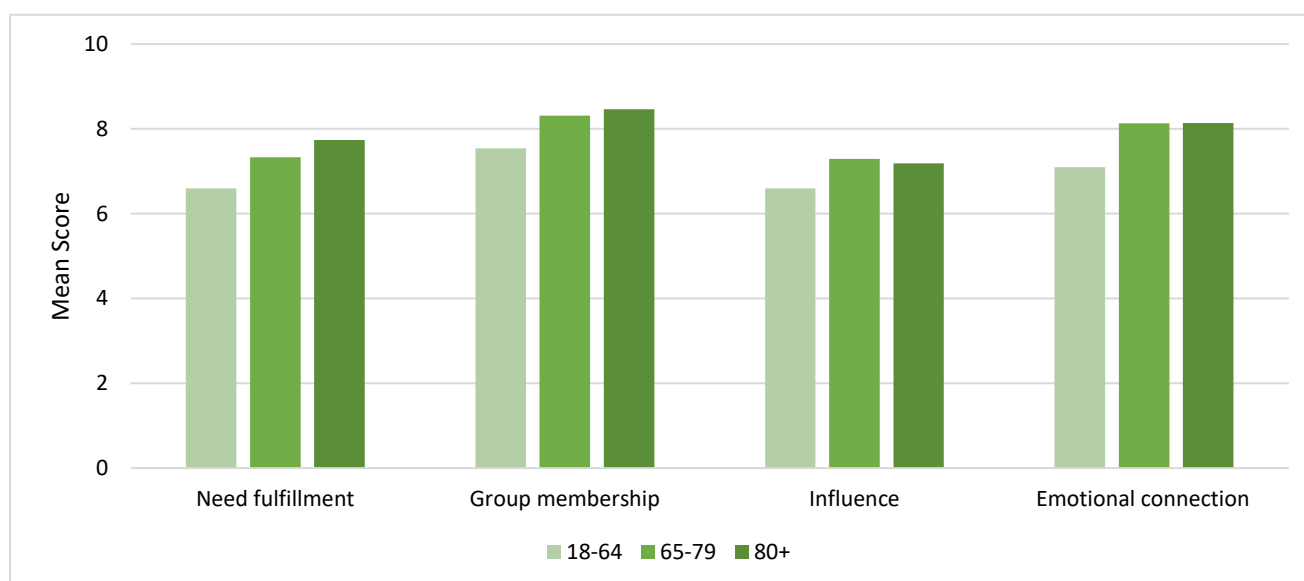
Table 15 Sense of community (N = 514)

	Mean (SD)
Needs fulfilment	7.25 (1.69)
Group membership	8.15 (1.44)
Influence	7.08 (1.66)
Emotional connection	7.86 (1.54)
Overall	30.35 (5.32)

1) Age group

Figure 6 summarises the sense of community across the three age groups. Compared with the younger respondents, those aged 65 years or above gave higher scores in all the four dimensions in sense of community. The respondents aged 80 years or above had the highest ratings in all dimensions, except for ‘Influence’.

Figure 6 Age group comparison of sense of community



As presented in Table 16, one-way ANOVA was conducted to explore the differences in sense of community amongst the different age groups. The three age groups were set as the independent variables, and the means of the four sense of community domains were set as the dependent variables. The results showed significant main effects in three dimensions, i.e. ‘Needs fulfilment’ ($F(2, 511) = 17.28, p < 0.001$), ‘Group membership’ ($F(2, 511) = 17.88, p < 0.001$) and ‘Emotional connection’ ($F(2, 511) = 24.51, p < 0.001$). Hence, multiple comparisons were made according to the Bonferroni method. The results showed that the mean scores of the 18–64 age group were significantly lower in all the dimensions, except ‘Influence’, compared with those of the 65–79 age group and 80 or above age group.

Table 16 Mean (SD) scores across age groups and results of one-way ANOVA and multiple comparison for sense of community

	18–64	65–79	80+	<i>F</i>	Bonferroni
Needs fulfilment	6.60 (1.52)	7.33 (1.64)	7.74 (1.76)	17.28***	18-64 < 65-79 18-64 < 80+
Group membership	7.54 (1.46)	8.31 (1.36)	8.46 (1.41)	17.88***	18-64 < 65-79 18-64 < 80+
Influence	6.60 (1.56)	7.29 (1.55)	7.19 (1.84)	8.07	
Emotional connection	7.10 (1.43)	8.13 (1.43)	8.14 (1.59)	24.51***	18-64 < 65-79 18-64 < 80+

Note: *** $p < 0.001$.

2) Participation in elderly centres

Figure 7 and Table 17 show that regardless of participation in the activities provided by elderly centres, the respondents' sense of community was above the average. An independent t-test was adopted to assess any differences in the sense of community of the respondents who received the services of elderly centres and those who did not. The results showed that the respondents who received the services of elderly centres had significantly high sense of community scores in all dimensions. 'Emotional connection' had the highest significant differences, whereas 'Influence' had the lowest.

Figure 7 Comparison of sense of community in terms of participation in elderly centres

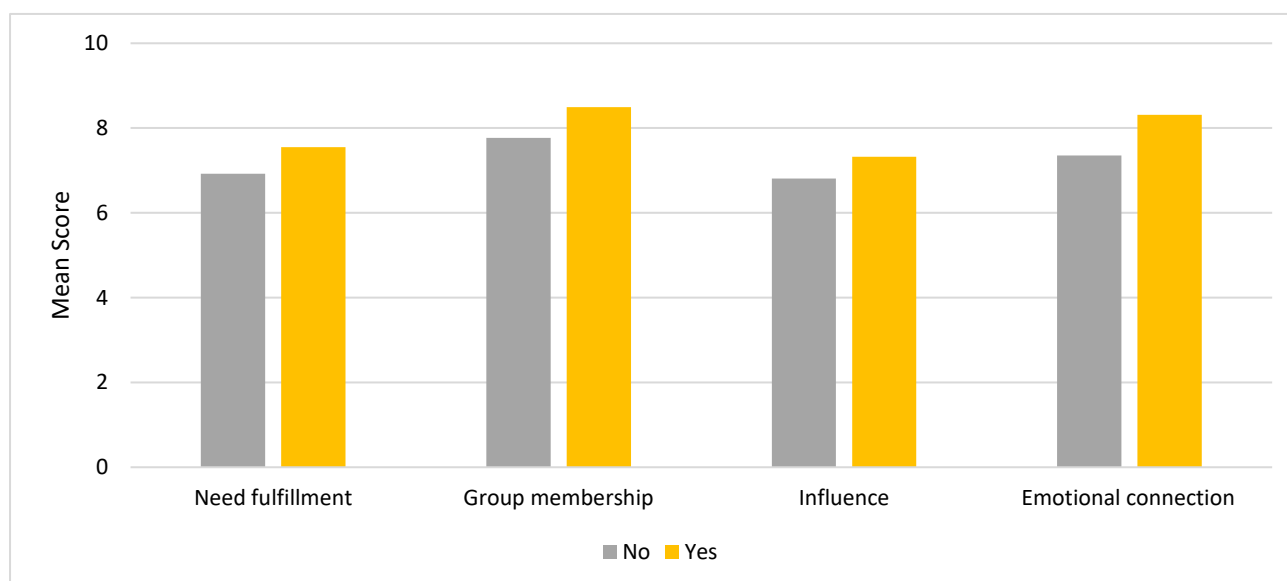


Table 17 Mean (SD) scores in terms of participation in elderly centres and results of independent t-test for sense of community

	Participation in elderly centres		t
	No	Yes	
Needs fulfilment	6.92 (1.61)	7.55 (1.71)	-4.245***
Group membership	7.77 (1.52)	8.49 (1.28)	-5.822***
Influence	6.81 (1.68)	7.32 (1.61)	-3.483**
Emotional connection	7.35 (1.59)	8.31 (1.35)	-7.328***

Note: **p < 0.01 *** p < 0.001.

3) Rural–urban areas

As mentioned previously, given the huge differences of the respondents from rural and urban areas, the results of the independent t-test conducted to compare these differences could only act as a reference.

The group residing in urban areas had generally higher scores for all domains of sense of community than the group residing in rural areas. The respondents from urban areas gave significantly higher scores for the ‘Influence’ domain than those from rural areas (rural: 6.38, urban: 7.15, $p = 0.003$).

5.1.3.2 Comparison between baseline and final assessment

To assess the changes in sense of community after the implementation of the project, this study conducted paired samples t-tests amongst the 223 paired respondents who joined the baseline and final assessments. As shown in Table 18, the respondents’ ratings on sense of community dropped in the final assessment (overall baseline: 31.42; overall final: 30.87). No significant change was noted in the four dimensions, except ‘Group membership’ (baseline: 8.63, final: 8.31, $p = 0.08$).

Table 18 Baseline and final assessment comparison of sense of community (N = 223)

	Baseline	Final
Needs fulfilment	7.35 (1.84)	7.25 (1.67)
Group membership	8.63 (1.39)	8.31 (1.30)
Influence*	7.36 (1.52)	7.21 (1.54)
Emotional connection	8.07 (1.49)	8.09 (1.42)
Overall	31.42 (4.91)	30.87 (4.85)

*Data were missing during data collection.

Note: All reported numbers are mean (SD). Outcomes with significant changes are marked in bold.

Table 19 presents the changes in sense of community by age group, social participation and caregiving experience from baseline to final assessment. In general, younger participants aged 18–64 years reported marginal improvement in the four dimensions of sense of community. Meanwhile, the older participants aged above 65 years gave significantly low scores in ‘Group membership’ (65–79 years, $p = 0.025$; 80 years or above, $p = 0.006$) and ‘Influence’ (80 years or above, $p = 0.047$).

The respondents who participated in the activities provided by elderly centres in the past three months had significant lower ratings for ‘Group membership’ (baseline: 8.90; final: 8.55, $p = 0.018$). Meanwhile, the respondents who did not use the services of elderly centres did not report significant changes in sense of community from baseline to final assessment.

The respondents living in urban areas showed a significantly negative change in the ‘Group membership’ dimension (baseline: 8.62; final: 8.30, $p = 0.008$). People from rural areas presented no significant changes in all dimensions.

Table 19 Age group, social participation and residence area—changes in sense of community

	Age Group						Elderly centre participation				Residence area			
	18–64 years		65–79 years		80 years or above		No		Yes		Rural area		Urban area	
	Baseline	Final	Baseline	Final	Baseline	Final	Baseline	Final	Baseline	Final	Baseline	Final	Baseline	Final
Needs	6.56	6.69	7.35	7.27	7.91	7.60	7.10	6.96	7.56	7.48	5.90	7.30	7.42	7.25
fulfilment	(1.29)	(1.28)	(1.79)	(1.64)	(2.06)	(1.87)	(1.99)	(1.60)	(1.70)	(1.69)	(3.14)	(2.00)	(1.74)	(1.66)
Group	7.62	7.96	8.80	8.44	9.05	8.34	8.29	8.02	8.90	8.55	8.90	8.70	8.62	8.30
membership	(1.13)	(1.19)	(1.23)	(1.29)	(1.48)	(1.35)	(1.54)	(1.36)	(1.19)	(1.19)	(1.52)	(1.337)	(1.38)	(1.29)
Influence	6.76	7.07	7.42	7.31	7.69	7.12	7.31	6.94	7.41	7.42	7.70	6.70	7.35	7.23
	(1.11)	(1.32)	(1.49)	(1.51)	(1.70)	(1.73)	(1.61)	(1.58)	(1.44)	(1.48)	(1.83)	(2.31)	(1.50)	(1.50)
Emotional	7.16	7.47	8.25	8.35	8.38	8.09	7.78	7.62	8.30	8.48	8.60	8.10	8.04	8.09
connection	(0.93)	(1.18)	(1.48)	(1.34)	(1.59)	(1.59)	(1.69)	(1.46)	(1.27)	(1.27)	(1.65)	(1.45)	(1.48)	(1.42)

Note: All reported numbers are mean (SD). Outcomes with significant changes are marked in bold.

5.1.4 Smart technology utilisation

This section reports the smart technology utilisation (STU) in Tuen Mun District. The scale consists of five items, each with a possible score ranging from 1 to 5. A higher score means more positive attitude towards the usage of smart technology. Possible responses include 1 (strongly disagree), 2 (disagree), 3 (fair), 4 (agree) and 5 (strongly agree).

Overall, the respondents had a positive attitude towards smart technology (Table 20). ‘Using smart home technology at home’ received the highest mean score (3.69), followed by ‘Free computer and Wi-Fi service in public spaces’ (3.36). Seeking help on technology utilisation in the community (STU3) had the lowest score (2.90). The finding reflects that more elderly welcome the use of the smart technology, yet they need more support to be familiar with the technology, for example the utilisation of smart phone.

Table 20 Smart technology utilisation (N = 514)

	Mean (SD)
STU 1. Free computer and Wi-Fi service in public spaces (such as government, community centre and library) is important for you to keep contact with others (e.g. contact family members or friends, search for information online).	3.36 (0.85)
STU 2. I used to keep contact with others using the computer.	3.20 (1.26)
STU 3. It is easy to seek help on technology utilisation (computer, smart phone) in the community.	2.90 (1.23)
STU 4. I think smart home technology can improve my quality of life.	3.32 (1.16)
STU 5. I wish I could use smart home technology at home.	3.69 (1.04)

1) Participation in elderly centres

An independent t-test was adopted to assess any differences in STU amongst those who received the services of elderly centres and those who did not. The results showed that the respondents who received the services of elderly centres in the past three months had higher scores for perceived age-friendliness in the community in all domains (Figure 8). Significant differences were found in STU 3 ‘It is easy to seek help on technology utilisation in the community’, STU 4 ‘I think smart home technology can improve my quality of life’ and STU5 ‘I wish I could use smart home technology at home’ (Table 21).

Figure 8 Comparison of smart technology utilisation in terms of participation in elderly centres

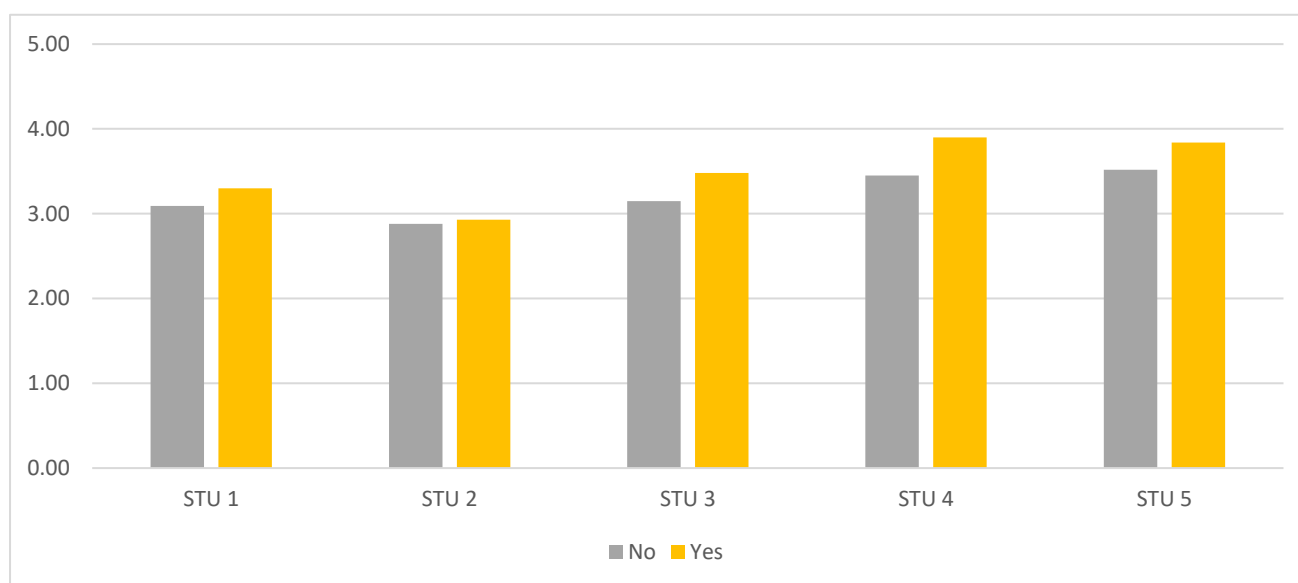


Table 21 Mean (SD) scores in terms of participation in elderly centres and results of independent t-test for smart technology utilisation

	Participation in elderly centres		t
	No	Yes	
STU 1. Free computer and Wi-Fi service in public spaces (such as government, community centre and library) is important for you to keep contact with others (e.g. contact family members or friends, search for information online).	3.09 (1.27)	3.30 (1.24)	-1.89
STU 2. I used to keep contact with others using the computer.	2.88 (1.36)	2.93 (1.32)	-0.40
STU 3. It is easy to seek help on technology utilisation (computer, smart phone) in the community.	3.15 (1.13)	3.48 (1.16)	-3.22**
STU 4. I think smart home technology can improve my quality of life.	3.45 (1.12)	3.90 (0.93)	-4.88***
STU 5. I wish I could use smart home technology at home.	3.52 (1.15)	3.84 (1.05)	-3.27**

Note: **p < 0.01 *** p < 0.001.

2) Rural–urban areas

Given the huge difference between the respondents from rural and urban areas, the results of the independent t-test conducted to compare the differences between the two groups of respondents could only serve as a reference. The group residing in urban areas had higher scores in all the five items of the scale than the group residing in rural areas. The scores for STU 1 and STU 4 showed significant differences.

3) Comparison between baseline and final assessment

Paired samples t-tests were conducted to eliminate the individual differences between the respondents and explore the changes in STU from baseline to final assessment.

As shown in Table 22, the respondents gave slightly lower scores for STU 3 (baseline: 3.44, final: 3.40) and STU 5 (baseline: 3.73, final: 3.72) whilst they gave marginally higher scores for STU 2 (baseline: 2.72, final: 2.80) and STU 4 (baseline: 3.65, final: 3.77). A significantly lower score was found in STU 1 (baseline: 3.45, final: 3.17, $p = 0.011$), indicating that respondents reduced the frequency to use public computer and Wi-Fi services to keep contact with others. This may imply the impact of the COVID19 pandemic and elderly tends to stay home rather than public areas.

Table 22 Baseline and final assessment comparison of sense of community (N = 223)

	Baseline	Final
STU 1. Free computer and Wi-Fi service in public spaces (such as government, community centre and library) is important for you to keep contact with others (e.g. contact family members or friends, search for information online).	3.45 (1.15)	3.17 (1.27)
STU 2. I used to keep contact with others using the computer.	2.72 (1.28)	2.80 (1.35)
STU 3. It is easy to seek help on technology utilisation (computer, smart phone) in the community.	3.44 (1.08)	3.40 (1.17)
STU 4. I think smart home technology can improve my quality of life.	3.65 (1.00)	3.77 (1.04)
STU 5. I wish I could use smart home technology at home.	3.73 (0.98)	3.72 (1.08)

Note: All reported numbers are mean (SD). Outcomes with significant changes are marked in bold.

5.2 Qualitative Study

The qualitative assessment included focus group interviews and field observation, which were aimed at gathering insights and comments from the residents and service providers in Tuen Mun. Questions were asked according to the eight domains of the global AFC framework suggested by the WHO.

5.2.1 Sociodemographic characteristics of respondents

A total of 28 focus group participants were recruited. Table 23 shows the details of the focus group interviews for the baseline assessment. Most participants were female (96.4%), aged 65 years or above (64.3%), living with their family members (64.3%) and working (67.9%). Around two-thirds of them completed secondary education or above.

Table 23 Sociodemographic characteristics of focus group participants (N = 28)

		N	%
Age:	18–49 years	2	7.1%
	50–64 years	8	28.6%
	65–79 years	12	42.9%
	80 years or above	6	21.4%
Gender:	Male	1	3.6%
	Female	27	96.4%
Education:	No schooling or pre-primary	3	10.7%
	Primary	9	32.1%
	Secondary	12	42.9%
	Post-secondary or above	4	14.3%
Living arrangement:	Alone	9	32.1%
	Living with family members	18	64.3%
	Living with others	1	3.6%
Employment status:	Working	19	67.9%
	Not working	9	32.1%

5.2.2 Key findings from focus group interviews and field observation

The transcripts of the focus group interviews were analysed by adopting a thematic analysis approach. The key findings of the five focus group discussions and field observation were presented according to the eight domains of the WHO's AFC framework. During the focus group interviews and field observation, the participants affirmed the development of age-friendliness in Tuen Mun District. At the same time, they expressed concern over some unresolved issues and shared their suggestions for further improvement.

WHO Domain 1: Outdoor spaces and buildings

Achievements

(1) Improvement in outdoor environment

The interviewees generally agreed about the improvement in the outdoor environment in the district. More green spaces and beautiful scenery spots have been created through multiple development projects, such as the Revitalisation of Tuen Mun River and Surrounding Areas project. The number of public toilets has also increased. Moreover, renovation has been done for several wet markets. The sanitation of the markets, streets and public toilets located in the town centre and shopping malls have also been improved. These changes provide a comfortable and pleasant living environment for the residents.

(2) Increased elderly-friendly facilities

Increased elderly-friendly facilities are another positive change noted by the interviewees. More barrier-free facilities, such as inclined walkways and lifts, have been installed, thereby bringing convenience to the pedestrians, especially the elderly population who often need mobility aids. Clear signs in shopping small help the elderly navigate these spaces. The cycling paths and other recreational facilities in the parks near Tuen Mun River also provide other leisure activity options for the elderly.

(3) Sustained comfortable environment in rural areas

In the baseline assessment, the respondents mentioned that the rural areas in Tuen Mun District were spacious and comfortable. Similar comments were received from the focus group interviewees in the final assessment. The rural environment was described to be quiet, spacious and full of fresh air and was thus found to be different from the town areas.

(4) Improved management in Tuen Mun Park

The erotic performances in Tuen Mun Park have been limited since the intervention of the DC members. The residents used to worry about being disturbed by the female performers in the park and would not dare to bring with them their children and the elderly. Recently, the management has been relatively strict, and these instances have been effectively controlled. Some interviewees shared that the residents were eager to come to the park for leisure.

Concerns

(1) Noise and safety issues in the park

Although the management has been improved, unresolved issues continue to hinder the residents from fully utilising the parks. People still sing loudly in the park, thus disturbing nearby residents. Erotic performances and inappropriate interactions between the male elderly and the performers still

occur in Tuen Mun Park. Moreover, male elderly have been observed to be smoking or gathering in parks without wearing masks; such instances are not conducive to epidemic prevention.

(2) Unresolved environmental problems

Although improvement has been noted in the outdoor environment in the past few years, the interviewees still had concerns and expected other changes in the future. Construction waste and discarded face masks cause pollution in some areas (e.g. San Hui). The sanitation of public toilets in old Tuen Mun areas is also unsatisfactory. Smoking continues to pose environmental and health hazards. As for the causes of these issues, some participants opined that the improper arrangement of public cleansing service is one of the reasons for the unsatisfactory sanitation in certain areas. The labour division for cleaning duty is unclear and rigid. The cleaners only focus on their own duty areas. As a result, some streets located near the boundaries of duty areas become ‘gaps’ without workers doing the cleaning. The reduced number of rubbish bins on the streets is also considered to affect the environment negatively.

(3) Insufficiency of facilities

As mentioned previously, the number of elderly-friendly facilities in the district has increased. However, they are still not sufficient to serve the residents (especially in areas outside the town centre), and further improvement is expected. The interviewees mentioned during the focus group discussion that the insufficient number of lifts at footbridges results in long waiting times. The public seating and shelters are not enough to fulfil the residents’ needs. The design of some seating is not suitable for the elderly, especially those using walking aids. Unclear and confusing signs still exist in some shopping malls.

I don't understand why there are armrests between the seats... It is difficult for fat people to sit there... Many elderly people are obese, and they often need to use a walking frame or walking stick. They are unable to sit down. (Interviewee 4, 18–59 age group)

啲凳呢，依家唔知點解設計無啦啦中間會有啲扶手...有啲真係肥啲呢，係坐得好辛苦㗎...通常好多老人家比較肥，同埋因為老人家都用腳架，同埋好多嘅拐杖諸如此類。佢坐落去係坐唔到。（受訪者四，18-59 年齡組）

Suggestion for Improvement

(1) Launching campaign to raise public hygiene awareness

Some interviewees mentioned previous cleaning campaigns organised in the community (e.g., 洗太平地). These programmes can be resumed to raise residents’ awareness of public hygiene so that they can take actions and contribute to maintaining the good outdoor environment of the district.

(2) Setting up smoking areas in public places

To reduce the effects of smoking on the public, some interviewees suggested to set up smoking areas in public places so that the smoke will not affect the non-smoking residents.

(3) Measures to further improve the management of public parks

Several suggestions have been proposed to improve the environment in public parks. Some interviewees recommended to conduct other activities to attract the male elderly so that they will not go for the erotic performances or loiter in the park during pandemic. Intensifying security patrol is also considered as an effective way to prevent smoking and loitering.

(4) Further developing the public facilities

As mentioned above, the public facilities in the district are still not enough to meet the residents' needs. Thus, installing more shelters and barrier-free facilities (e.g. inclined walkways), arranging seats in shopping malls and other public areas, redesigning the seats to fulfil the needs of people with obesity and walking aids, increasing the font size of the words on public signs and other actions were suggested during the interviews.

WHO Domain 2: Transportation

Achievements

(1) Affordable price

The fare of public transport is affordable for the elderly, and they are particularly satisfied with the \$2 concession scheme. The interviewees were also pleased with the interchange discount when using the light rail and west rail.

(2) Higher accessibility and convenience

The interviewees shared that the accessibility of the transportation system has been improved in the past few years. Traveling to other areas in Hong Kong from Tuen Mun District has become relatively easy.

Transportation has changed the most. In the past, people felt scared when hearing about Tuen Mun because there was only one route, namely Tuen Mun Road. Because it is too far away... there was nobody visiting me. It was like... I was a wild man in the mountain. The relatives rarely came to visit me. Only once a year... Now, the development of the road is good.
(Interviewee 3, 60–79 age group)

交通啊，（變化）最大。因為以前啲一聽見屯門就驚㗎啦，因為剩係得屯門公路一條線，因為太遠太長...咁變咗呢...冇乜人嚟探我嘅。好似……去咗深山做野人咁。即係連親戚啊，都好少入嚟。甚至係一年一次...而家呢睇住佢一路一路咁發展得好好。（受訪者三，60-79 年齡組）

Previously, if you want to go to Kowloon, you must wait for a specific bus. Now it is different... No matter which bus you take, you can go to the interchange station and transfer to other lines to go to Kowloon; it is more convenient. Besides, there are other transport options, such as West Line. (Interviewee 5, Caregiver group)

之前呢，出九龍咁，你要坐個架車就要等個架車，咁而家唔係啦...咁你坐邊架車，你去到中轉站嗰度都可以轉車去出去九龍咗樣，方便好多囉。咁呀有西鐵啦，有其他嘞交通工具囉。(受訪者五，照顧者組)

As for the level of convenience, barrier-free facilities are available on buses and in MTR stations. Newly installed smart devices allow the elderly to use the Octopus Card to extend the pedestrian flashing green time when they cross the roads near Tai Hing Estate. All these measures make travel relatively safe and convenient for the elderly.

(3) Close attention of drivers of buses and minibuses to the safety of elderly passengers

When the elderly passengers get on or get off buses/minibuses, the drivers will wait for them to be seated properly before driving away. This thoughtful action ensures the safety of the elderly.

(4) Mobile application of the light rail

The MTR has developed a mobile application for checking the schedule of the light rail. With the increasing popularity of smartphones amongst older people, this application will become a convenient platform for the elderly passengers to obtain updated traffic information.

Concerns

(1) Inconvenient transportation in rural areas

Some interviewees pointed out that the public transportation system in rural areas is unsatisfactory. The light rail station is far from the villages. The waiting time for other public transport options, namely minibuses and residents' buses, is quite long. The lack of supporting facilities (e.g. benches) at bus stations hinders the elderly from enduring the long waiting time.

(2) Unsatisfactory light rail service

Interviewees have raised concerns about the current light rail service. Some light rail captains are not sensitive to the needs of elderly passengers. In some instances, they do not give the elderly passengers enough time to get off the vehicle, thus making the elderly fall down.

Many interviews mentioned that the light rail is always crowded. It often lacks seats for the elderly, and it has no room for wheelchair users. Some interviewees specifically described the difficulty of traveling to Tuen Mun Hospital by light rail. Patients in wheelchairs cannot always get on the vehicle because of the lack of space. After they arrive at the Tuen Mun Hospital station, they will need to

walk through a narrow and uncovered road connecting the station and the hospital, which presents a difficult experience, especially on rainy days.

Other complaints included 1) limited space and crowding on the platform that results in potential danger for the passengers and 2) insufficient number of Octopus Service machines that results in inconvenience for the passengers.

(4) Negative influence of COVID-19 pandemic and social unrest

Some interviewees shared that public transport services were limited because of the COVID-19 pandemic. During social unrest in 2019, the signboards at bus stops and light rail stations become damaged. Some of them have not been repaired.

Suggestions for Improvement

Various suggestions have been raised by the interviewees to further improve the transport system in Tuen Mun. These suggestions included increasing wheelchair-friendly services (e.g. rehabuses, barrier-free buses, minibuses and taxis), arranging multiple-set light rail vehicles during peak hours to increase the passenger carrying capacity, and widening the walkway connecting Tuen Mun Hospital and the light rail station.

WHO Domain 3: Housing

Achievements

Some interviewees shared that they were happy to see the increased number of public housing units and the favourable design of the buildings. They also noticed that apart from the efforts to create new estates, actions have been taken to provide regular maintenance for the old estates.

Concerns

(1) Unaffordable private housing

Some interviewees opined that the rent for private housing has been increasing. The amount is not affordable for grassroot families in the long run.

The rent has been increasing. It is not affordable for ordinary people. For the same flat, the monthly rent was \$3,000–\$4,000 in the past, but it is \$7,000–\$8,000 or even \$10,000 nowadays. This takes up more than half of the salary. (Interviewee 1, Caregiver group)

房屋租金不停咁起，普通人就租嘅地方呢就負擔唔起，嗰陣時都係 4000 零 3000 蚊啦我算係租一達地方，但係而家即係唔成萬都 8、7 千喇，即係一份人工俾咗一大半佢。(受訪者一，照顧者組)

(2) Limited living spaces

Several interviewees expressed much dissatisfaction with the limited living spaces. They complained that the size of some housing units is extremely small and thus creates a strong sense of pressure for the residents living in such units.

(3) Home and household appliance maintenance issue

Although regular housing maintenance is provided to the old estates by the government, some of the interviewees opined that the current maintenance work is insufficient and inefficient. They mentioned that some long-standing issues, such as water pipe problems, are not resolved. The government's response to the residents' request for maintenance is quite slow. Moreover, most home maintenance subsidies only benefit the public housing tenants and CSSA recipients. Little support is provided for the residents living in private housing. Moreover, the elderly lack information about household appliance maintenance or repair services.

Suggestions for Improvement

Some interviewees opined that social service organisations and the government departments can play an important role in improving the living conditions of the elderly. Social service providers, district councillors and social welfare department can organise workshops to provide information regarding housing matters to the elderly residents. Social service providers can also conduct home visits in the rural areas to understand the living environment of the elderly. On the basis of the findings from these home visits, the social service providers can allocate funding to assist the elderly with necessary home modifications (e.g. installing nonslip floor tiles and handrails) so that their housing needs can be effectively fulfilled.

WHO Domain 4: Social participation

Achievements

Many interviewees shared that many elderly activities have been conducted by social service organisations in recent years. To ensure the high quality of the activities, the organisers regularly review their services on the basis of the Service Quality Standards developed by the Social Welfare Department. The interviewees appreciated the efforts made by the service providers. They showed much enthusiasm about participating in these activities and were satisfied with the joy they gained and the knowledge they learned from the activities.

Concerns

(1) Male elderly are less active in social participation

Some interviewees observed that compared with females, the male elderly are less willing to join

social activities. They opined that the possible reasons include 1) the activities are unattractive to the male elderly and 2) the male elderly are generally more introverted.

(2) Few activities are available because of the COVID-19 pandemic

Given the need for epidemic control, the community elderly centres need to take stringent health and hygiene measures on their operation and its service arrangement. Home visitation is forbidden and the number of elderly people coming to the centres is restricted. Fewer activities are organised, and a small quota is set for each activity. Some elderly residents are greatly affected by these changes.

In the past, I often went to the centre to play... Now there is the pandemic. The centre does not allow you to go in. I don't dare to go shopping alone for too long. Then I have no choice but to stay at home every day, and I feel so lethargic. (Interviewee 5, 80+ age group)

往陣時成日去中心玩呀... 咁有疫情，中心又唔開畀你入去玩呀、你自己行街又唔敢行咁耐，咁樣變咗咪成日困喺屋企囉，困到個人都瞓曬。(受訪者 5, 80+ 年齡組)

(3) The space for elderly activities is inadequate

Some interviewees opined that not enough space is available in the elderly centres to conduct activities that involve much body movement (e.g. dancing and Tai Chi class). As these activities often require music, the organisers are concerned about conducting activities in outside places. They are worried about whether the music will disturb the neighbours.

(4) The healthy elderly have limited activity options

Some interviewees shared that when conducting activities, the NGOs pay more attention to the frail elderly and caregivers. As for the elderly who are relatively healthy and mobile, the NGOs seldom design activities specifically for them and only expect them to be volunteers for other activities. Action should be taken to better fulfil the need of this group.

Suggestions for Improvement

(1) To understand the interest of the male elderly and conduct tailor-made activities

To attract more male elderly residents to join activities, the service providers should understand their preferences and design activities accordingly. For example, one of the interviewees opined that the elderly centres can organise classes related to digital technology, as this is a topic that the male elderly are often interested in.

(2) To prioritise the elderly centres' application for community hall

As the space in elderly centres is limited, other venues in the community should be explored. One of the interviewees from the service provider group opined that the community hall is a suitable option, especially for sports activities. Thus, the interviewee hoped that the centre's application for the hall

can be prioritised when intended for elderly activities.

WHO Domain 5: Respect and social inclusion

Achievements

(1) Harmonious relationship in the neighbourhood

Some interviewees shared that the relationship within their neighbourhood is harmonious. Residents in the neighbourhood are friendly to the elderly and are willing to take care of one another.

(The neighbours) are all very friendly... You take care of me, and I take care of you... If I don't go down (for a period of time), they will come up to see me and ask, 'Why don't you come down? Is there anything wrong?' They know that I am living alone, so they come up and check on me (to make sure I am okay). (Interviewee 3, 80+ age group)

(鄰里)個個都好和藹...你又照顧我,我又照顧你...即係我(一段時間)唔落去,佢都上嚟...「點解仲唔落嚟呢?有乜嘢事呢?」佢知我一個人住呀嘛,咪走上嚟(確保我沒事)。(受訪者三, 80+年齡組)

(2) Courteous service providers

A number of elderly interviewees gave positive comments about the friendly staff from the hospital and social service organisations.

Those medical staff... nurses... are very polite... If you have things that you don't understand, they will explain them to you... There is much improvement. The staff used to be so bad! (Interviewee 1, 80+age group)

好多啲醫務人員呀...啲姑娘呀...好多好有禮貌...有啲唔識就話畀你聽...係進步好好㗎。哇!以前幾惡死呀。(受訪者一, 80+年齡組)

(3) Enhanced intergenerational harmony between the youth and the elderly

Many interviewees shared that the schools in the district and the Social Welfare Department have conducted various activities to facilitate the communication and collaboration between the youth and the elderly. These activities have promoted the mutual understanding and respect between different generations and have enhanced the intergenerational harmony.

Concerns

(1) Lack of care and respect for the elderly amongst the younger generation

As mentioned above, the interviewees gave positive feedback about the relationship between the elderly and other social groups. However, disrespectful and indifferent attitude towards senior citizens still exist in the community.

The young people rarely (greet the elderly). When you take initiative to say hello to them, they will take a look at you and briefly respond. But they seem not willing to do so. (Interviewee 4, 18–59 age group)

年輕人個班呢，就會好少主動（打招呼）。就算你好主動同佢講早晨，佢都會望一望你，都會回應下你嘅，但係好似唔係幾想囉。（受訪者四，18-59 年齡組）

When elderly people like me take the bus... Some (of the young people) will stand up and give their seat to you. Some just pretend you are not there and play their mobile phones... Sometimes I go out with a trolley to buy meals and hold the handrail (on the bus). They only take a glance at you. This is not good. (Interviewee 5, 80+ age group)

好似我哋咁樣搭車... 咁就有啲(年輕人)起身畀你坐，有啲就... 佢都一樣當你冇到，係咁用手機... 有陣時買餸，推住架車，攞住扶手，佢望下你咁就算啦，嗰啲真係唔好。（受訪者五，80+ 年齡組）

(2) Increased tension and decreased inclusiveness caused by social unrest

Some interviewees shared that because of the massive social unrest in 2019, the inclusiveness amongst people have been greatly damaged, especially amongst generations. Much tension exists between groups with different political stands, and it even results in conflict between the elderly and their family members.

I think the biggest influence (of social unrest) is on the young people... I feel that there was no inclusiveness during the movement. People with different political stands cannot tolerate each other. (Interviewee 1, 18–59 age group)

我覺得(社運)最大影響係班後生... 同埋即係我自己覺得社運個陣時，包容係零包容，人同人之間只要你大家係一講唔同嘅立場，就已經唔會包容。（受訪者一，18-59 年齡組）

Suggestions for Improvement

(1) Young people's action to support the elderly

One of the interviewees opined that the elderly are very willing to expand their views and learn new things. As young people are equipped with the latest information and skills, this interviewee hopes that they can take action to impart their knowledge to the elderly.

(2) Changing the youth's attitude towards the elderly through family and school education

Some interviewees opined that education plays a key role in changing the youth's negative attitude towards the elderly. Appropriate family and school education can make a significant difference. Thus, teachers and parents should exert increasing effort to guide the young people to understand the older generation so that their attitude can become more respectful.

WHO Domain 6: Civic participation and employment

Achievements

(1) Sufficient opportunities for training

A few interviewees shared that many training opportunities are available for the elderly to update their knowledge and skill sets. The organisers of these trainings often conduct promotion events in the community (e.g. street counter). Thus, the elderly can easily obtain relevant information.

(2) Increased participation in volunteer work

Many elderly interviewees agreed that many volunteer work opportunities have been provided in the recent years. They are eager to participate as volunteer work enriches their daily life. The interviewee from the service provider group shared that volunteer work has helped the female elderly to become increasingly confident and capable.

Previously, they (the elderly) really just stayed at home, especially the females... They felt they were in an inferior position, so they just cooked everyday.... But now it is different... Some of the housewives have stepped out to do volunteer work, which helps them to get to know more people. I think the volunteer work widens their view. They also find themselves becoming more confident. (Interviewee 4, Service provider group)

以前佢地(長者)係真系匿係間屋嘅姐，特別女性呢... 唔覺得自己嘅地位好好啊，咁所以就成日係到煮飯啊... 不過而家就唔係啦... 有啲家庭主婦啦... 都走出來做義工啦咁就從而識得更加多人啦，咁我覺得係擴闊左佢哋嘅視野，同埋佢哋參與左之後發現自己個自信係高咗好多。(受訪者四，服務提供者組)

Concerns

(1) Elderly residents' disadvantaged position in the job market

Compared with the younger generation, the elderly residents face more difficulty when looking for employment. In Hong Kong, employers are required to take out compensation insurance policies for their employees. However, the application procedure for elderly employees is complex, and the premium is relatively high. Thus, many employers are not keen on hiring elderly people. Employers willing to consider elderly employees are usually limited to some social enterprises or food courts. The positions provided are often limited to cleaners or security guards. Some interviewees felt that the elderly, especially the young-old, are still capable. They can be qualified for many other jobs.

(2) Few employment opportunities caused by social movement and the COVID-19 pandemic

The social movement and pandemic have strongly battered the economy. Many businesses have closed, and the job opportunities are limited. Thus, job seekers, especially the elderly people who are already in a disadvantaged position in the job market, cannot easily get offers.

(3) Current training does not match market demand

Some interviewees opined that the content of most training courses is outdated and does not match the market demand.

The contents of the training courses are all similar... The courses for people of our age should not only be about things such as maternity matron, housework assistant and flower arrangement... Is it possible to have some new ideas? For example, there are more new industries in the market that are suitable for us to try... such as babysitting. (Interviewee 4, 18–59 age group)

啲培訓課程嚟嚟去去都係差唔多...我哋呢啲咁嘅年齡層囉，即係唔好成日都係陪月呀、家務助理呀、插花...可唔可以新少少呢？例如依家市場上都係比較多番少少啲嘅嘅...即係多少少啲嘅新興嘅行業、啱我哋...即係幫人湊下小朋友呀啲嘅。(受訪者四，18-59 年齡組)

(4) Difficulty in voicing out opinions

Some interviewees living in rural areas shared that after the last DC election in 2020, they were not clear about the location of the new councillors' office. Moreover, some council members did not take active action to visit the residents and collect feedback. These issues have hindered the elderly and other residents from sharing their opinions and advocating for their community.

Suggestions for Improvement

Given the disadvantages that the elderly facing in the job market, they should be provided with additional support for them to overcome obstacles. Career planning workshops, employment referral services and vocational training that matches the market demand are all considered to be helpful for elderly job seekers.

WHO Domain 7: Communication and information

Achievements

(1) Many elderly people are able to utilise smartphones for communication and obtaining information

With the development of digital technology, smartphones have become an important tool for people to obtain information and communicate with others, especially when face-to-face interactions were restricted due to the COVID-19 pandemic. To assist the elderly in enjoying the convenience brought by digital technology, the government and NGOs have implemented various programs to teach the elderly how to make use of smartphones and the internet in their daily life. Over time, an increasing number of senior citizens would be able to use mobile applications (e.g. WhatsApp) to receive update from NGOs, obtain latest news and communicate with their social workers, friends and

families.

(2) Various methods are adopted to meet the different needs of the elderly

Although the number of older people who could use smartphones and the internet has been continuously increasing, many senior citizens remain unfamiliar with the digital technology and need to obtain information by other means. Thus, the government and social service providers have adopted other methods to disseminate information to these elderly residents, such as phone calls, billboards and volunteer visits. These methods are especially important for the hidden elderly who rarely interact with others and have very limited source of information.

Concerns

(1) Unstable and expensive internet services in rural areas

Some interviewees shared that the internet service in rural areas is unstable and costly. It hinders the elderly from using smartphones for communication.

(2) Insufficient support for the old-old

One of the interviewees shared that the old-old people need more support when registering for public services and welfare schemes. The interviewee shared that the old-old are usually unable to utilise smartphones and the internet. However, the registration mostly needs to be done online (e.g. booking appointment for COVID-19 vaccination, applying for cash pay out scheme). The old-old can generally learn about the services and benefits from TV or radio, but they are unable to complete the registration and do not have any information about where they can seek support. This group is thus unable to enjoy the benefits available to them.

(3) Improper font size of posters

The font size of some posters on billboards in the community is too small, thus making the text difficult to read for the elderly.

Suggestions for Improvement

Some interviewees suggested that the government should allocate some quotas for the elderly to walk in for public services without appointments. Staff should also be assigned to service points to provide face-to-face instruction to the elderly to assist them with registration.

WHO Domain 8: Community support and health services

Achievements

(1) Improved patient experience

Some interviewees shared that patient experience has been improved in recent years. The arrangement of follow-up appointments is reasonable, thus saving time for patients during appointments. With the assistance of the Electronic Health Record Sharing System (eHealth), patients can be reminded about medical appointments and check their healthcare records whenever they want to.

(2) Improved public health awareness

Several interviewees shared those extensive efforts have been made by the government and social service organisations to enhance the public health education, especially after the outbreak of the COVID-19 pandemic. Health knowledge has been provided to the elderly through various channels, which have greatly improved their health awareness.

(3) Various support for the elderly and caregivers

Many interviewees gave positive comments about the social services provided to senior residents and their caregivers. Various types of assistance, such as showering assistance, meal delivery and cognition training, are available to support the elderly living in the community. Social workers from hospitals and elderly centres provide emotional support to caregivers and thus help them better manage work pressure.

Previously, when I was taking care of my husband, he really had many illnesses. He was a chronic patient... At the end stage, it was really hard to tolerate. He threw tantrums every day... The social worker from the centre was very nice. She knew the situation of my family... I talked to her whenever I encountered difficulties. She always consoled me. (Interviewee 5, Caregiver group)

以前我湊我老公嗰陣時，我老公真係好多病痛嘅。咁佢係長期病患... 黐尾嚴重嗰陣時呢，佢真係好難頂囉，成日都發脾氣嘅... 咁中心啲姑娘都好好嘅，知道屋企嘅情況係點樣點樣... 有咩困難就同佢講，咁佢都會開解囉。(受訪者五，照顧者組)

Concerns

(1) Insufficient public healthcare services and unaffordable private healthcare services

Many interviewees opined that the current public healthcare service in Tuen Mun District is not sufficient. The long waiting time for appointments and the Accident and Emergency (A&E) services in public hospitals is unacceptable. Some patients have no choice but to choose private services. However, private services are too expensive for the elderly from grassroot families in the long run.

I used to need to do physiotherapy... When I looked at the appointment letter, I found I need to wait for 2 years! My back was aching, but I still needed to wait for 2 years... The waiting time is unreasonable, not just for the physiotherapy but also for many other services. You cannot get an appointment even until you die. I had no choice but to go for private physiotherapy. But the

private service is expensive. I only did it once or twice and then gave up. The elderly from grassroot families may not be able to afford private services. (Interviewee 4, 18–59 age group)
我曾經就係因為有啲需要，要做物理治療...張預約紙我一睇，哇！2年呀？我腰骨痛，仲要排兩年...個排期係唔合理囉。唔係淨係物理治療呀，好多都係唔合理，即係死都未排到。所以我物理治療無奈下都要出去搵私家，但係都知道私家做啲收費都好貴，有時無奈睇下、做一兩次就唔做啦。其餘的基層家庭嚟講，啲長者呀未必負擔到。(受訪者四，18-59 年齡組)

(2) Inadequate residential care and day care service for the elderly

Lack of residential care services for the elderly has been a longstanding issue affecting elderly people's well-being. Many interviewees highlighted this issue during the focus group discussion. They mentioned that the waiting time for subvented elderly homes is too long. Private homes are either too expensive or of poor service quality.

There are not many elderly homes. The private homes are quite expensive. The monthly expense for an EAI bed is around \$20,000. I often go to elderly homes. The service quality of some elderly homes is really bad. The food is bad. The care is also bad... If you wait for a government home, you may not be able to get a bed even until you die. (Interviewee 4, 18–59 age group)
你老人院又少、就算私人嘅老人院亦都係相當之貴...去優甲級嘅老人院差唔多去到兩萬幾蚊。因為我經常都會去老人院，你去啲好差嘅老人院真係好差好差。食又差、嗰個護理都好差...排政府老人院排到死都未入到去。(受訪者四，18-59 年齡組)

Day care service is another critical support that many elderly people need. One of the interviewees complained about the long waiting time for day care services and claimed that the elderly can get the service quota only when their health conditions severely deteriorate.

(3) Insufficient support for the elderly living alone

A few interviewees opined that the current support services for the elderly living alone are insufficient. One of them had an elderly neighbour whose dead body was found 3 days after death.

Suggestions for Improvement

To reduce the waiting time for A&E services, one of the interviewees suggested to assign a team of A&E doctors for the most urgent cases and another team for less urgent cases. Such an arrangement can ensure that urgent patients receive timely treatment whilst the less urgent patients need not wait for too long.

6. Conclusions

Since the launch of The Project, various stakeholders in Tuen Mun District, including the Tuen Mun DC, academia, government departments, NGOs, private sectors and local residents, have been working hand in hand to raise awareness about AFCs and improve the age-friendliness of the community. Although the outbreak of social unrest and the COVID-19 pandemic has negatively influenced the programme implementation, the project team and collaborative parties have cooperated to cope with the unexpected situation with innovative ways, such as changing the service delivery approach from physical to virtual platforms.

Overall, it is encouraging to see that Tuen Mun District has been on the right track towards becoming an age-friendly community. Tuen Mun District has successfully become one of the members of the WHO Global Network for Age-friendly Cities and Communities. The findings from the final assessment revealed that the respondents perceived the district to be age friendly in general and presented positive changes from baseline to final assessments. Amongst the eight AFC domains, ‘Social participation’ scored the highest, followed by ‘Transportation’ and ‘Communication and information’. The lowest rank was noted in ‘Housing’ and ‘Community support and health services’.

As mentioned in section of 5.1.2.2, data of 223 pairs respondents who joined baseline and final assessments were analysed to explore the changes in age-friendliness in the past few years. Respondents gave significantly higher ratings in the six domains from the baseline to the final assessment: from 3.58 to 3.88 for ‘Housing’, from 4.30 to 4.35 for ‘Respect and social inclusion’, from 3.94 to 4.20 for ‘Civic participation and social inclusion’, from 4.10 to 4.35 for ‘Communication and information’ and from 3.53 to 3.86 for ‘Community support and health services’. Although ‘Housing’ and ‘Community support and health services’ had the lowest ranking, these two domains had the most significant changes in mean score. More significant improvements in perceived age-friendliness were observed amongst the older respondents aged 65 years or above, private housing residents living in urban areas and active members of elderly centres.

The participants of the focus group discussion appreciated the achievements in all eight domains, especially in the improved outdoor environment, enhanced barrier-free facilities, affordable and convenient transportation, public rental housing, social activities with high quality, harmonious and respectful attitude towards the elderly, sufficient opportunities for training and volunteer work, strengthened information accessibility, enjoyable patient experience, improved public health awareness and support for the elderly and caregivers.

The respondents appeared to have a good sense of community. The older participants aged above 65 years and active members of elderly centres had better scores than the younger participants. ‘Group membership’ scored the highest amongst the four dimensions in final assessment. This indicates that this group of respondents’ sense of belongings to the community is rated highest compared to the other three dimensions. However, among the people who joined both baseline and final assessment, respondents gave slightly lower ratings to all the dimensions in the final assessment, except ‘Emotional connection’. The score of the ‘Group membership’ dimension dropped significantly from 8.63 to 8.3. The results might reflect the negative

impacts of the social unrest and pandemic, which were also highlighted in the focus group discussion.

Regarding the utilization of smart technology, most respondents had a positive attitude. 'I wish I could use smart home technology at home' ranked the highest. The active members of elderly centres strongly favoured STU in the final assessment. No significant change was found from the baseline to the final assessment, but the item relevant to the importance of free equipment and Wi-Fi connection in public spaces dropped significantly from 3.45 to 3.17. It was likely due to people rarely engaging in activities in public spaces since the outbreak of the pandemic.

7. Recommendations

To continually improve the age-friendliness in Tuen Mun District, we consolidated several recommendations for each AFC domain according to the questionnaire survey, focus group study and field observation. ‘Outdoor spaces and buildings’ was ranked the fifth amongst the eight domains. The participants mentioned launching a cleaning campaign to raise residents’ awareness of public hygiene and improve their motivation to enhance the outdoor environment. To cope with the unsolved environmental problem, they suggested setting up smoking areas in public spaces and improving the management of public parks, public toilets and cleaning services. Although the participants appreciated the achievements of the age-friendly facilities in Tuen Mun, they expected further improvements, including installing more shelters and barrier-free facilities, redesigning the unsuitable public seats and reviewing unclear and confusing signs in shopping malls.

In terms of ‘Transportation’, residents in Tuen Mun ranked this domain the second. The respondents were quite satisfied with the affordable price, accessibility of the transportation system and respectful attitude of the drivers. However, they also shared concerns about the inconvenient transportation in the rural areas and unsatisfactory light rail services, especially in Tuen Mun Hospital station. Several suggestions were proposed to further improve the age-friendliness in Tuen Mun District, include providing additional services of age-friendly vehicles, including rehabuses, barrier-free buses/minibuses and taxis in the district and enhancing the light rail services (e.g. increasing the passenger-carrying capacity of the light rail during peak hours, widening the walkway connecting Tuen Mun Hospital and the light rail station and repairing the facilities in light rail stations). Enhancing the support for transportation in rural areas should also be noted and ensured by improving the availability of public transportation to reduce waiting times and increasing age-friendly facilities in bus stations.

‘Housing’ was one of the lowest-ranked AFC domains in Tuen Mun. The participants shared their concerns about unaffordable private housing, limited living spaces and household maintenance and home modification issues. Although home maintenance and modification are of great importance to meet the needs of the elderly, some older people lack relevant information or could not afford to cover the expenses. Some respondents suggested that the community centres and members of the DC should organise seminars and workshops to provide useful home maintenance information to the elderly residents. In the long term, they also suggested that social service operators, such as elderly centres, should provide trustworthy information or directly allocate funding or resources to support the needy elderly in terms of household appliance maintenance and home modification.

Regarding ‘Social participation’, this domain was ranked the highest by the respondents, although the pandemic severely influenced the social service centres’ daily operations. People were satisfied with the high quality of the accessible activities and appreciated the efforts and enthusiasm of service providers. However, compared with females, male respondents gave significantly lower scores in this domain. The participants from the focus group mentioned that the male elderly were less active in social participation as well. Therefore, activities that are suitable and attractive to the male elderly were suggested. In addition, more activity options should be provided to meet the needs of the healthy elderly in the community. The

inadequate space of the elderly centres was raised as another critical issue because a limited space is likely to have a negative impact on the elderly's social participation. To cope with the situation, the participants suggested prioritising the application for the use of the community hall. They also suggested promoting space sharing across different social service units, i.e. encouraging youth centres to provide available spaces in their spare time for the elderly centres to conduct activities, so as to benefit more service recipients.

In terms of 'Respect and social inclusion', this domain was ranked in the fourth place. The participants generally mentioned the positive changes of the harmonious interaction in the neighbourhood as well as between different generations. However, disrespectful and indifferent attitudes towards older people still exist in the community. The participants shared increased tension and decreased social inclusiveness caused by social unrest since 2019. To enhance the mutual understanding and positive interaction between the youth and the elderly, schools and social service providers should play essential roles in initiating intergenerational activities, such as encouraging the youth to impart new knowledge to the elderly. Appropriate family, school and public education about respecting and caring for the elderly should also be encouraged. To strengthen the communication and mutual trust between the new DC members and the residents, multiple channels should be provided to express their opinions.

'Civic participation and employment' was ranked in the sixth place by the respondents. They shared the positive changes in this domain, such as sufficient training and voluntary work opportunities. However, older people still face various difficulties in returning to the labour market, such as the higher expenses on the compensation insurance for employers, limited job positions and mismatched career enhancement training. The outbreak of social unrest and the pandemic has also negatively influenced the employment of the elderly and their engagement in voluntary work. To help the elderly overcome the obstacles in the job market, support from the individual level to policy level would be necessary. Such support may come in the form of career planning workshops, vocational training that matches the market demand, employment referral services and more types of jobs suitable for the elderly.

Regarding 'Communication and information', the respondents ranked this domain in the third place. They were grateful that the government and NGOs implemented various activities to support the elderly using smartphones and the internet, especially when face-to-face interaction was restricted by the COVID-19 pandemic. For the elderly who could not access information online, the government and service providers adopted other methods to disseminate information, such as phone calls, billboards and volunteer visits. Some recommendations were proposed to improve the domain further. For instance, enhancement of internet services in rural areas should be noted as present services are unstable and expensive, thus hindering the rural elderly from getting information online. The font size of some posters on billboards in the community should be adjusted for the elderly to be able to read the text easily. Many elderly people remain unable to use smartphones or internet services. Therefore, additional human resources should be allocated to support them for walk-in services and face-to-face instruction, such as booking an appointment for COVID-19 vaccination and applying for the cash pay out scheme. For the inactive members or hidden elderly in the community, volunteer visits should be strengthened as they have limited information sources.

‘Community support and health services’ was ranked the lowest as ‘Housing’ amongst the eight domains, leaving much room for improvement. Although the respondents had improved patient experience, they viewed the public healthcare services as far from being satisfactory. The insufficient services of public hospitals in Tuen Mun District result in unacceptably long waiting times for appointments and A&E services whilst private healthcare services are unaffordable in the long run. The participants suggested optimising the human resources for A&E services to shorten the waiting time. Medical resources should be increased according to the population growth of the district. Regarding social care services, subvented residential care and day care services are also inadequate whilst the prices of high-quality elderly homes are too high. The government should allocate more resources to related services to shorten the waiting time. Furthermore, participants suggested providing additional resources to the elderly who live alone as they might lack support.

Although the outbreak of COVID-19 has exerted negative impacts on offline social participation, it has provided an opportunity for the elderly, especially the young-old, to speed up their adoption of smartphones, computers and online services. The findings of the questionnaire survey indicated that active members of elderly centres had a more positive attitude towards technology utilisation. As smart technology and the internet play an important role in people’s daily life, we suggest that the government and stakeholders should allocate regular resources and funding to equip the elderly with knowledge and ability for technology usage to keep them closely connected with society and prevent their social exclusion.

With the continuous support and efforts from the JCAFC Project and various community stakeholders, momentum in Tuen Mun District has been successfully established to arouse public awareness and encourage community participation in building an AFC. Residents in the district have witnessed apparent improvements in age-friendliness in the past few years. In the long term, apart from adopting the bottom-up and district-based approach, more publicity work and top-down support will also be of great importance in the continual improvement of the well-being of the elderly in Hong Kong. The government, especially the Labour and Welfare Bureau and Elderly Commission, would play a crucial role in coordinating with different parties, integrating various resources and formulating and implementing relevant policies to promote and develop the AFC at the societal level.

8. Appendices

Appendix 1 – Questionnaire survey



賽馬會齡活城市
Jockey Club Age-friendly City

問卷編號：

問卷填寫日期：

訪問員編號：

長者及年齡友善城市指標研究問卷調查

策劃及捐助：



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同心 同步 同進 RIDING HIGH TOGETHER

計劃伙伴：



Lingnan 嶺南大學
University 香港 Hong Kong



亞太老年學研究中心
Asia-Pacific Institute
of Ageing Studies

簡介：

為協助香港建構長者及年齡友善城市，香港賽馬會慈善信託基金贊助本港四間大學於十八個地區推行「賽馬會齡活城市」計劃。現階段正展開社區評估工作，透過問卷調查直接了解長者的需要。您所提供的資料只會作研究之用，內容絕對保密，除獲本研究所授權的人員外，將不會提供予其他人士，請放心填寫。參與問卷調查純屬自願性質，可隨時退出。完成問卷後，您將獲得港幣伍拾圓正現金禮券，以示感謝。謝謝您的參與！**請注意：**為保證禮券順利派發，請**準確填寫**所需的個人資料。**每位參加者只需填寫一份問卷，重複填寫問卷將不獲派發額外禮券**（如已經填寫網上問卷，則無需填寫紙版問卷）。

受訪者已明白以上內容。

受訪者簽署以確認已明白上述內容： _____

受訪對象身份（請在適當位置劃上剔號「✓」）：

- (1) 60歲或以上的長者 80歲或以上的長者 18-59歲的市民
(2) 護老者（凡照顧長者之人士） 服務提供者／專業人士 不適用

受訪者居住的地區：

屯門區

<input type="checkbox"/> (1) 屯門市中心	<input type="checkbox"/> (2) 兆置	<input type="checkbox"/> (3) 安定	<input type="checkbox"/> (4) 兆翠
<input type="checkbox"/> (5) 友愛南	<input type="checkbox"/> (6) 友愛北	<input type="checkbox"/> (7) 翠興	<input type="checkbox"/> (8) 山景
<input type="checkbox"/> (9) 景興	<input type="checkbox"/> (10) 興澤	<input type="checkbox"/> (11) 新墟	<input type="checkbox"/> (12) 掃管笏
<input type="checkbox"/> (13) 三聖	<input type="checkbox"/> (14) 恒福	<input type="checkbox"/> (15) 悅湖	<input type="checkbox"/> (16) 兆禧
<input type="checkbox"/> (17) 湖景	<input type="checkbox"/> (18) 蝴蝶	<input type="checkbox"/> (19) 富新	<input type="checkbox"/> (20) 樂翠
<input type="checkbox"/> (21) 龍門	<input type="checkbox"/> (22) 新景	<input type="checkbox"/> (23) 良景	<input type="checkbox"/> (24) 田景
<input type="checkbox"/> (25) 寶田	<input type="checkbox"/> (26) 建生	<input type="checkbox"/> (27) 兆康	<input type="checkbox"/> (28) 欣田
<input type="checkbox"/> (29) 屯門鄉郊	<input type="checkbox"/> (30) 富泰	<input type="checkbox"/> (31) 景峰	<input type="checkbox"/> (32) 其他 (請註明：_____)

受訪者居住的地區：

元朗區

<input type="checkbox"/> (33) 豐年	<input type="checkbox"/> (34) 元朗中心	<input type="checkbox"/> (35) 鳳翔	<input type="checkbox"/> (36) 元龍
<input type="checkbox"/> (37) 十八鄉中	<input type="checkbox"/> (38) 水邊	<input type="checkbox"/> (39) 南屏	<input type="checkbox"/> (40) 北朗
<input type="checkbox"/> (41) 元朗東頭	<input type="checkbox"/> (42) 十八鄉北	<input type="checkbox"/> (43) 十八鄉東	<input type="checkbox"/> (44) 十八鄉西
<input type="checkbox"/> (45) 屏山南	<input type="checkbox"/> (46) 洪福	<input type="checkbox"/> (47) 廈村	<input type="checkbox"/> (48) 屏山中
<input type="checkbox"/> (49) 盛欣	<input type="checkbox"/> (50) 天盛	<input type="checkbox"/> (51) 天耀	<input type="checkbox"/> (52) 耀祐
<input type="checkbox"/> (53) 慈祐	<input type="checkbox"/> (54) 嘉湖南	<input type="checkbox"/> (55) 瑞愛	<input type="checkbox"/> (56) 瑞華
<input type="checkbox"/> (57) 頌華	<input type="checkbox"/> (58) 頌栢	<input type="checkbox"/> (59) 嘉湖北	<input type="checkbox"/> (60) 悅恩
<input type="checkbox"/> (61) 晴景	<input type="checkbox"/> (62) 富恩	<input type="checkbox"/> (63) 逸澤	<input type="checkbox"/> (64) 天恆
<input type="checkbox"/> (65) 宏逸	<input type="checkbox"/> (66) 屏山北	<input type="checkbox"/> (67) 錦繡花園	<input type="checkbox"/> (68) 新田
<input type="checkbox"/> (69) 錦田	<input type="checkbox"/> (70) 八鄉北	<input type="checkbox"/> (71) 八鄉南	<input type="checkbox"/> (72)其他 (請註明：_____)

年齡友善社區指標研究調查問卷

請閱讀下列各部份的句子，並根據你對現時居住社區的印象來回答你對這些句子的同意程度，以1至6分代表。1分為非常不同意，2分為不同意，3分為有點不同意，4分為有點同意，5分為同意，6分為非常同意。

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

第一部份：

根據你對現時居住社區的印象，你有多同意以下敘述？

非常不同意	不同意	有點不同意	有點同意	同意	非常同意
-------	-----	-------	------	----	------

A. 醫社服務

(1) 防病及宣傳							
1	區內有足夠的健康管理的宣傳和推廣活動（例：舉行講座、張貼海報和派發傳單）。	1	2	3	4	5	6
2	區內有不同的疾病預防服務（例：注射疫苗，心臟及血壓定期檢查）。	1	2	3	4	5	6
(2) 治療							
3	市民能享用區內的醫療服務。	1	2	3	4	5	6
4	區內醫療服務種類能滿足長者需要（例：專科和物理治療），無須跨區使用服務。	1	2	3	4	5	6
(3) 復康與長期照顧							
5	區內有足夠的輔助服務（例：復康巴士）讓有需要人士往返醫療或社區服務場所。	1	2	3	4	5	6
6	區內有足夠的安老院舍。	1	2	3	4	5	6
7	區內有足夠的善終及生死教育服務（例：寧養服務、生死教育和情緒支援）。	1	2	3	4	5	6
8	社區為護老者提供足夠支援（例：培訓和輔導）。	1	2	3	4	5	6

B. 權益保障

(1) 經濟保障							
9	區內有為長者提供職業培訓和指導服務，提高長者的受聘機會。	1	2	3	4	5	6
10	社會保障制度（例：生果金、長者生活津貼、綜援、傷殘津貼）清晰，保障和資助足夠。	1	2	3	4	5	6
11	區內政府服務或機構有為長者提供不同的優惠。	1	2	3	4	5	6
12	區內有為長者提供生涯規劃服務（例：退休工作坊），為退休作準備。	1	2	3	4	5	6

根據你對現時居住社區的印象，你有多同意以下敘述？

非常不同意	不同意	有點不同意	有點同意	同意	非常同意
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C. 社會參與

(1) 法律保障							
13	區內有不同課程及興趣班組供長者持續進修。	1	2	3	4	5	6
14	區內的長者課程內容實用，設計恰當。	1	2	3	4	5	6
(2) 義務工作							
15	區內有不同義務工作選擇，並不會因缺乏培訓或其他問題（例：保險）而無法參加。	1	2	3	4	5	6
16	區內鼓勵長者參與義務工作。	1	2	3	4	5	6
(3) 社會資本							
17	區內有推動鄰舍互助的意識，協助長者拓展區內的人際關係。	1	2	3	4	5	6
(4) 資訊傳播							
18	無障礙資訊傳播的種類多元化，並能配合長者的個別需要（例：視力、聽力衰退），如字體大小。	1	2	3	4	5	6

D. 生活環境

(1) 交通與出行							
19	區內的道路設施及設計完善，有效維持良好的交通秩序及安全（例：人車分隔，行人路寬闊足夠輪椅通行）。	1	2	3	4	5	6
20	區內公共交通服務便利（例：班次充足及可靠、服務有選擇、交通網絡覆蓋廣、收費合理、服務便捷和有足夠舒適的候車空間）。	1	2	3	4	5	6
21	司機和乘客能關心長者在出行時的需要並給予支援（例：讓座、長者安坐後才開車）。	1	2	3	4	5	6
22	無障礙運輸交通工具的配置完善（例：低地台、輪椅升降台），司機亦懂得如何使用這些設備。	1	2	3	4	5	6
(2) 建築與住房							
23	區內房屋的數量充足，價錢又可負擔。	1	2	3	4	5	6
24	區內家庭照顧長者的支援服務充足（例：長者日間護理中心），能鼓勵家庭選擇與長者同住或鄰近居住。	1	2	3	4	5	6
25	住所鄰近區內的長者服務地點（例：長者中心）。	1	2	3	4	5	6

註：交通工具包括鐵路、電車、巴士、小型巴士、的士、渡輪、單車等；車站包括碼頭，單車停泊地方等。

第二部份

根據你對現時居住社區的印象，你有多同意以下敘述？

非常不同意	不同意	有點不同意	有點同意	同意	非常同意
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A. 室外空間及建築							
1 (#1)	區內環境衛生乾淨，沒有垃圾。	1	2	3	4	5	6
2	戶外座位同綠化空間充足，而且保養得妥善同安全。	1	2	3	4	5	6
3	司機喺路口同行人過路處俾行人行先。	1	2	3	4	5	6
4	單車徑同行人路分開。	1	2	3	4	5	6
5	街道有充足嘅照明，而且有警察巡邏，令戶外地方安全。	1	2	3	4	5	6
6	商業服務（好似購物中心、超市、銀行）嘅地點集中同方便使用。	1	2	3	4	5	6
7	有安排特別客戶服務俾有需要人士，例如長者專用櫃枱。	1	2	3	4	5	6
8 (#40)	建築物內外的無障礙設施配置充足（例：升降機、斜台、扶手等），方便長者出入。	1	2	3	4	5	6
9	室外和室內地方嘅公共洗手間數量充足、乾淨同埋保養得妥善，俾唔同行動能力嘅人士使用。	1	2	3	4	5	6
B. 交通							
10	路面交通有秩序（例：司機和行人遵守交通規則）。	1	2	3	4	5	6
11	交通網絡良好，透過公共交通可以去到市內所有地區同埋服務地點。	1	2	3	4	5	6
12	公共交通嘅費用係可以負擔嘅，而且價錢清晰。無論喺惡劣天氣、繁忙時間或假日，收費都係一致嘅。	1	2	3	4	5	6
13	喺所有時間，包括喺夜晚、週末和假日，公共交通服務都係可靠同埋班次頻密。	1	2	3	4	5	6
14	公共交通服務嘅路線同班次資料完整，又列出可以俾傷殘人士使用嘅班次。	1	2	3	4	5	6
15	公共交通工具嘅車廂乾淨、保養良好、容易上落、唔迫、又有優先使用座位。而乘客亦會讓呢啲位俾有需要人士。	1	2	3	4	5	6
16	有專為殘疾人士而設嘅交通服務（例：復康巴士）。	1	2	3	4	5	6
17	車站嘅位置方便、容易到達、安全、乾淨、光線充足、有清晰嘅標誌，仲有蓋，同埋有充足嘅座位。	1	2	3	4	5	6
18	司機會喺指定嘅車站同緊貼住行人路停車，方便乘客上落，又會等埋乘客坐低先開車。	1	2	3	4	5	6

根據你對現時居住社區的印象，你有多同意以下敘述？

		非常不同意	不同意	有點不同意	有點同意	同意	非常同意
19	喺公共交通唔夠嘅地方有其他接載服務（例如：村巴、屋苑的接載巴士）。	1	2	3	4	5	6
20	的士可以擺放輪椅同助行器，費用負擔得起。司機有禮貌，並且樂於助人。	1	2	3	4	5	6
21	馬路保養妥善，照明充足。	1	2	3	4	5	6
C. 住所							
22	房屋嘅數量足夠、價錢可負擔，而且地點安全，又近其他社區服務同地方。	1	2	3	4	5	6
23 (#35)	區內居所的設計能配合長者需要，包括提供足夠的室內空間及設備（例：浴室設有扶手及防滑地磚），以保障長者的居所環境安全。	1	2	3	4	5	6
24 (#39)	區內有可負擔的家居改裝服務，並清楚長者的居住需要（例：加裝扶手，斜台出入單位）。	1	2	3	4	5	6
25	區內有充足同可負擔嘅房屋提供俾體弱同殘疾嘅長者，亦有適合佢地嘅服務。	1	2	3	4	5	6
D. 社會參與							
26	活動可以俾一個人或者同朋友一齊參加。	1	2	3	4	5	6
27	活動同參觀景點嘅費用都可以負擔，亦都有隱藏或附加嘅收費。	1	2	3	4	5	6
28	有完善咁提供有關活動嘅資料，包括無障礙設施同埋交通選擇。	1	2	3	4	5	6
29 (#29)	區內有多元化的文娛康樂活動吸引長者參與。	1	2	3	4	5	6
30 (#24)	區內不同場地（例：文娛中心、學校、圖書館、社區中心和公園）定期舉行適合長者參與的聚會及活動。	1	2	3	4	5	6
31	對少接觸外界嘅人士提供可靠嘅外展支援服務（包括經濟和情緒支援，例如探訪活動）。	1	2	3	4	5	6
E. 尊重及社會包融							
32 (#30)	區內的公私營服務提供者會定期諮詢長者，重視長者提出的意見和建議，鼓勵長者關注社區事務。	1	2	3	4	5	6
33	提供唔同服務同產品，去滿足唔同人士嘅需求同喜好。	1	2	3	4	5	6
34	服務人員有禮貌，樂於助人。	1	2	3	4	5	6
35 (#26)	區內有提供平台和機會給長者及年青人交流互動，促進跨代共融（例：區內的學校提供機會讓學生學習有關長者和年老的知識，並給予長者參與學校活動的機會）。	1	2	3	4	5	6

根據你對現時居住社區的印象，你有多同意以下敘述？

		非常不同意	不同意	有點不同意	有點同意	同意	非常同意
36 (#18)	社會認同長者所作出的貢獻。	1	2	3	4	5	6
37 (#19)	傳媒對長者的描述正面。	1	2	3	4	5	6
F. 社區參與及就業							
38	長者有彈性嘅義務工作選擇，而且得到訓練、表揚、指導同埋補償開支。	1	2	3	4	5	6
39	長者員工嘅特質得到廣泛推崇。	1	2	3	4	5	6
40 (#14)	有足夠具彈性的工作機會支持長者再就業，並有合理的報酬。	1	2	3	4	5	6
41 (#12)	長者不會遭受年齡歧視。	1	2	3	4	5	6
G. 訊息交流							
42	資訊發佈嘅方式（包括電視、收音機、告示板、報紙）簡單有效，唔同年齡嘅人士都接收到。	1	2	3	4	5	6
43	定期提供長者有興趣嘅訊息同廣播。	1	2	3	4	5	6
44	少接觸外界嘅人士可以喺佢地信任嘅人士身上，得到同佢本人有關嘅資訊。	1	2	3	4	5	6
45	電子設備，好似手提電話、收音機、電視機、銀行自動櫃員機同自動售票機嘅掣夠大，同埋上面嘅字體都夠大。	1	2	3	4	5	6
46	電話應答系統嘅指示緩慢同清楚，又會話俾打去嘅人聽點樣可以隨時重複內容。	1	2	3	4	5	6
47 (#27)	區內的公眾場所（例：政府辦事處、社區中心和圖書館）已廣泛設有免費的電腦和上網服務讓公眾使用。	1	2	3	4	5	6
H. 社區支持與健康服務							
48 (#5)	醫療及社區支援服務足夠（例：輪候時間合理、人手充足）。	1	2	3	4	5	6
49 (#9)	區內有足夠的社區生活照顧服務，能居家安老（例：上門支援服務）。	1	2	3	4	5	6
50	院舍服務設施同長者的居所都鄰近其他社區服務同地方。	1	2	3	4	5	6
51	市民唔會因為經濟困難，而得唔到醫療同社區嘅支援服務。	1	2	3	4	5	6
52	社區應變計劃（指有關天災人禍的緊急應變計劃，好似走火警）有考慮到長者嘅能力同限制。	1	2	3	4	5	6
53	墓地（包括土葬同骨灰龕）嘅數量足夠同埋容易獲得。	1	2	3	4	5	6

以下有些句子，請回答您對這些句子的**同意程度**，以 1 至 5 分代表。1 分為非常不同意，2 分為不同意，3 分為普通，4 分為同意，5 分為非常同意。

請就你居住的地區評分，你有多同意以下敘述？

I	社群意識指數	非常不同意	不同意	普通	同意	非常同意
1	在這個社區我可以得到我需要的東西。	1	2	3	4	5
2	這個社區幫助我滿足我的需求。	1	2	3	4	5
3	我覺得是這個社區的一員。	1	2	3	4	5
4	我屬於這個社區。	1	2	3	4	5
5	我可以參與討論在社區發生的事情。	1	2	3	4	5
6	這個社區的人們善於互相影響。	1	2	3	4	5
7	我覺得與這個社區休戚相關（息息相關）。	1	2	3	4	5
8	我與這個社區的其他人有良好的關係。	1	2	3	4	5

請就你日常使用智能科技的情況評分，你有多同意以下敘述？

II	智慧城市	非常不同意	不同意	普通	同意	非常同意
1	公眾場所（例：政府辦事處、社區中心和圖書館）的免費電腦和上網服務對你與外界交流（例：與家人，朋友保持聯絡，上網尋找相關資訊）很重要	1	2	3	4	5
2	我有使用電腦與外界交流的習慣	1	2	3	4	5
3	社區中可以好快搵到人幫手解答資訊科技（如電腦、智能電話）的使用問題	1	2	3	4	5
4	我認為智能家居設備（例：無線感應沖水掣）能改善我的生活質素	1	2	3	4	5
5	我希望能為我的家居增添電子智能設備	1	2	3	4	5

受訪者資料（請在適當位置劃上剔號「✓」）

1. 年齡：_____歲
2. 性別： 男 女
3. 教育程度：
 未曾接受教育 / 學前教育 小學 初中
 高中（包括毅進） 預科 專上教育：文憑 / 證書課程
 專上教育：副學士 大學學位 學士以上（碩士 / 博士）
4. 婚姻情況：
 未婚 已婚 喪偶 離婚 / 分居 其他（請註明：_____）
5. 居住狀況（可多選）：
 與配偶同住 與子女同住 與配偶及子女同住 與親戚同住
 與工人同住 獨居 其他（請註明：_____）
6. 居住房屋類型：
公營房屋：
 租住公屋
 自置公屋
 租住居屋
 自置居屋
 長者屋
私人永久性房屋：
 租住（包括免租，如員工宿舍）
 自置（包括有按揭、已完成供款）
 私人臨時房屋（如鐵皮屋）
 其他（請註明）：_____（如老人院）
7. 你在這個社區居住了多少年？ _____年
8. 就業情況：
你現時有沒有工作？
 有，現時的職業是： _____
 沒有，現在是：
 失業人士 退休人士（退休前的職業是： _____）
 料理家務者（如：家庭主婦） 學生 其他（請註明： _____）

9. 你有沒有足夠的金錢應付日常開支？
 非常不足夠 不足夠 剛足夠 足夠有餘 非常充裕
10. 現時每月個人收入（包括社會保障制度的援助及子女提供的生活費）：
 少於\$2,000 \$2,000 - \$3,999 \$4,000 - \$5,999 \$6,000 - \$ 7,999
 \$8,000 - \$9,999 \$10,000 - \$14,999 \$15,000 - \$19,999 \$20,000 - \$ 24,999
\$25,000 - \$29,999 \$30,000 - \$39,999 \$40,000 - \$ 59,999 \$60,000 或以上
11. 在過去三個月內，你有沒有使用 / 參加長者中心提供的服務或活動？
 沒有 有
12. 你是否患有長期疾病？ 沒有 有
13. 你如何評價你的健康情況？
 差 一般 好 很好 非常好
14. 你有沒有長期照顧長者的經驗？ 沒有 有

問卷已完成，謝謝您的意見！
資料將於研究完成後六個月內銷毀。

Appendix 2 – Focus group guide

嶺南大學亞太老年學研究中心
賽馬會齡活城市計劃
聚焦小組

小組簡介：

「長者及年齡友善城市」是世界衛生組織在 2005 年提出的概念，它建基於積極老齡化的理論框架，旨在優化社區環境，促進長者的健康、社會參與和保障，和提升長者的生活質素。為協助香港建構長者及年齡友善城市，香港賽馬會慈善信託基金贊助本港四間大學於十八個地區推行「賽馬會齡活城市」計劃。本次計劃已接近尾聲，項目組將透過問卷調查及聚焦小組的形式，對計劃展開評估工作。

本次聚焦小組將圍繞世界衛生組織所定下的「長者及年齡友善城市」的八個範疇來探討屯門區的實際情況，了解您對於本區的居住環境以及長者相關資源/服務的意見。

世界衛生組織提倡的「長者及年齡友善城市」主要由八個範疇組成，包括室外空間和建築、交通、房屋、社會參與、尊重和社會包容、公民參與和就業、信息交流、社區與健康服務。

「長者及年齡友善城市」的八個範疇：

- 1. 室外空間和建築：** 建築設計能鼓勵及協助長者外出，參與日常社交活動
*戶外環境、綠化空間、馬路/過路設施、無障礙設施、戶外休息區、單車徑、建築物、行人路、安全性、指示牌、公共洗手間等
- 2. 交通：** 交通的配套，如交通路線安排及車資，能促進長者參與日常活動
*公共交通連結的目的地、車站設備及服務、交通資訊、車長態度、可負擔性、不同交通工具的服務（巴士/地鐵/輕鐵/的士/復康巴等）、車資的可負擔性、無障礙服務及設施、班次的頻密程度及可靠性、安全及舒適度等
- 3. 房屋：** 家居設計及居住環境能夠長者安全在社區生活及居家安老
*可負擔性、內部設計及改裝、附近的服務及設施、住屋選擇、家居維修及保養、社區融合、住所空間、居住環境等
- 4. 社會參與：** 有多元化且合適長者參與的活動，費用和活動設計的合乎長者的需要
*社會活動的種類及可參與性、長者對活動的負擔能力、適合長者需要的活動設施、活動的覆蓋範圍、活動的推廣、促進社區一體化等
- 5. 尊重和社會包容：** 肯定和尊重長者，有敬老意識及行為
*公眾的敬老意識、社區對長者的接納度、對貧窮長者的接納度、公眾教育、跨代和家庭交流等
- 6. 公民參與就業：** 有合適長者參與的義工服務機會，有適合長者的再培訓課程及工作機會，令長者退休後仍能繼續貢獻社會
*就業機會、工作資訊/選擇/靈活性/待遇、培訓、長者創業、義務工作、社區事務的參與等
- 7. 信息交流：** 資訊傳播簡單易明、清晰適時且可負擔，避免長者被社會孤立
*資訊傳播（電視、電台、報章、電話、口頭訊息、印刷品等）、簡單易明且容易獲得、電腦及互聯網的使用、自動化設施（電話語音系統、自動櫃員機、自動售票機等）等

8. **社區與健康服務：**有社區支援服務，如家居照顧服務、陪診、家居清潔等協助長者居家安老；有服務多元化、可負擔及容易到達的醫療服務
- *提供足夠的社區支援服務、服務人員掌握服務長者的技巧並接受與長者溝通的培訓、提供家庭護理服務、服務設施安全且傷健人士都能使用

討論問題：

1. 整體而言，你認為屯門區長者的生活質素如何？哪些範疇最為長者友善？
 2. 從你的觀察，城市的長者與鄉郊長者的生活質素有大的差異嗎？若有，主要是哪範疇？
 3. 2017 年至今這幾年間，你認為哪三個範疇是最有進步？為什麼？
 4. 2017 年至今這幾年間，香港經歷社會事年及疫情重大事件，你認為哪幾個範疇影響較大？
 5. 整體而言(若沒有重大事件)，你認為本區長者在哪個範疇最需要關注？如何改善？（個人/社區/政府層面）
 6. 你覺得還有其他因素會影響「長者及年齡友善城市」的建設嗎？
 7. 如果「長者及年齡友善城市」計劃有延伸計劃，你對延伸計劃有什麼建議？
 8. 就著今天的討論，還有沒有其他補充？
- (備注：若有些範疇未有提及，訪問員也可多了解其中原因?)

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Lingnan University



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