Many cities are undergoing an unprecedented demographic change that comes with a decline in birth rate and an increase in ageing population. Hong Kong, being one of the most densely populated cities in the world, is no exception. The elderly are commonly being perceived as dependent and less mobile. In reality, ageing is a gradual process that the speed of decline varies between individuals. Our built environment needs to be more adaptive to the changing needs of the ageing population. Besides taking care of the elderly’s physical needs, psychological needs are equally important. Architectural Services Department of the Hong Kong Special Administrative Region commissioned P&T Architects and Engineers Limited as their consultant to develop a study on how the built environment can be developed to embrace the need of current, and future generation of the elderly, so that they can stay active in the community and lead a fulfilling life.

Research Methodology

This evidence-based study was developed in three stages. Besides adopting a traditional desktop research approach in stage one, a series of engagement workshops and consultations were carried out in stages two and three to understand the needs of the elderly and what they considered as elderly-friendly.

In stage one, desktop research on the prevailing legislation and design guidelines was carried out to compare how Hong Kong and other Asia Pacific countries cope with the ageing populations on legislative and policy level. A range of local and overseas projects of different building types and scales was studied and visited to understand how the needs of the elderly related to their declining abilities in physical motion, sight, hearing and cognition were addressed with different design strategies and solutions. Four overarching principles, namely “Safety”, “Support”, “Cognition” and “Well-being” were developed as the research framework to address the needs of the elderly. As part of the process, stakeholders of the built environment including the design professionals, elderly-services practitioners and project proponents were invited to attend an inception workshop, where they were engaged in the exploratory exercise, such as group discussions, brainstorming sessions and design charrette to identify the challenges and examine different design considerations to tackle the issues based on the overarching principles. Some recommendations and suggestions were identified for further development.

In stage two, an ageing simulation workshop was organised to allow the research team to role-play as the elderly by wearing special gears that were designed to reduce their physical capability and vision. Purpose of the workshop was to allow the research team to understand the challenges encountered by the elderly in daily living, so as to arouse their empathy when making design considerations. After the study, the research team was conducted to carry out the research team with the elderly to visit a number of public facilities in a local district, Tin Shui Wai. This provided an opportunity for the research team to interact with the elderly and understand their needs.

In stage three, in order to ensure that the research was more comprehensive and practical, briefing sessions and consultations were conducted during the development of the Guidelines to obtain comments and suggestions from the stakeholders.

Major Findings

Recommendations revolving around the four overarching principles were developed from the findings from the research. These recommendations highlight the key aspects that should be considered to provide a user centred design built environment.

Safety

This is a crucial aspect of building design, especially for the elderly who are more vulnerable to falls and less mindful of potential hazards in the built environment. Fall prevention, injury mitigation and contingency planning were suggested to be incorporated to create an environment that facilitates safe mobility and activities.

Support

Environment that fosters confidence and independence in daily activities should be promoted to facilitate the elderly to adapt to declining abilities.

Cognition

The elderly need longer time to process information and to retrieve memories. Use landmark to provide orientation cues and memorable locations, clearer signage and easy navigable wayfinding system in buildings can facilitate the elderly with declining cognitive ability to find their way round an environment.

Well-being

Provision of a comfortable, uplifting environment and promotion of active lifestyle with more social interactions is essential to a senior’s emotional and mental well-being. Staying socially active is a key factor for good health and give the elderly the feeling of having a purpose in life.

Application

An Elderly-friendly Design Guidelines (Guidelines) was put together as a product of this study and was made available at https://www.archsd.gov.hk/media/40886/20190326_5501_Elderly-friendly%20Design%20Guidelines_FINAL.pdf. The design recommendations in the Guidelines are intended for use by designers, project proponents and public advocates in supporting decision making for elderly-friendly building projects.

The Guidelines encompass design recommendations for the ambulant elderly who are experiencing age-related changes in physical strength, vision, hearing and cognition that may lead to inconvenience in their daily living. They are not intended to address specific degree of impairment, but to recognize a wide range of capacities and lifestyle choices among the elderly, to respond to the flexible and varied needs and preference and to highlight key design aspects that are crucial in building an elderly-friendly environment. Quantifiable design recommendations in the Guidelines are provided as suggested options and best practices instead of mandatory requirements.

The content of the Guidelines is structured such that designers and project proponents would consider various design aspects effectively along with processes from spatial planning to circulation; from exterior space to interior space; and from common facilities to fixture and furniture.

Conclusion

The Guidelines promote an age-friendly city, which allows the society to evolve and to develop over time to accommodate changing needs of the ageing population. Recommendations are made to build an environment that not only allows the elderly to stay physically active, but also encourage them to learn, and take part in the community. The elderly should be empowered to choose the ways of living, to maintain independence in their daily activities and enjoy living as valued members of the community. Stakeholders of the built environment are encouraged to kick-off design by identifying clear objectives and to progress by committing, engaging, collaborating and exploring. Quality of life of the elderly can only be improved by having a built environment that take cares what they actually need.