

Planning for Age-Friendly Neighbourhoods

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Abstract

Traditional models of retirement living provide low to high care options derived from care or leisure oriented models that generally result in the segregation of seniors from the rest of the community. Research investigating international aged care provision uncovered innovative models of senior living that have 'unbundled' care and accommodation, providing for greater choice and independence as seniors' needs change. Many of the case studies examined, support not only seniors' preference to age-in-place (Quinn & Judd, 2010), but also foster their engagement in activities or with others, including multiple generations. This affects mobility and reduces social isolation, major contributors to seniors' health and wellbeing (Productivity Commission, 2011). From a design perspective, this trend also liberates the way housing and care options can be conceptualised and designed for seniors, to allow for more innovative approaches. Whilst the WHO (1997) Age-Friendly Cities Guidelines suggests that seniors should be included in decisions that affect them, there are few examples in the academic literature where seniors were asked about their preferences for neighbourhoods or housing.

This gap in the literature inspired a consortium of non-profit, private and public sector partners led by the University of the Sunshine Coast to investigate the neighbourhood and housing preferences of seniors in South East Queensland, Australia. Conducted over one year in 2011, the participative research methodology using PhotoVoice and Design Charrettes allowed seniors to critically inform a brief with detailed design principles and to oversee and advise a design team on suitable housing options. The research culminated in a number of housing typologies that were designed in active collaboration with seniors in design charrettes (Baldwin et al., 2012).

The findings of these two pieces of research clearly converge to provide key lessons in the housing, neighbourhood and care preferences of seniors. A significant outcome was the development of the "Ageing in Neighbourhood" concept, which demonstrates how a range of housing typologies suitable to seniors might fit together in an urban neighbourhood to increase housing choice for seniors. The participatory approach of this research was instrumental in exploring the contribution that planning can make and the trade-offs that seniors are willing to make to achieve acceptable design solutions. This research has broader implications: it demonstrates the value of using innovative methods of engagement to capture the future that seniors envision as they age; and provides insight into planning and delivering inclusive neighbourhoods.

Introduction

Global trends in health care have increased longevity and are foreshadowed to skew demographics in favour of a greater percentage of older people. The World Health Organisation (2007) estimates the number of people aged 60 and over as a proportion of the global population will double from 11% in 2006 to 22% by 2050. Older people typically express a strong desire to preserve their sense of self, maintain their independence, retain control and exercise choice. Baby boomers in particular have experienced much greater

capacity than previous generations to fulfil their desire to remain active and independent and satisfy their preferences (Productivity Commission 2011:51). This has implications for the kind of community that seniors want to live in and the kind of accommodation that will suit their needs as they age.

In general, seniors prefer to 'age in place', that is, to remain in their home and neighbourhood. Government aging policy encourages this to reduce pressure on service delivery systems. The consequences are that as people age, the suitability of their accommodation may not match changes in their mobility needs, partly because of a lack of housing options for those wanting to stay in their community, but not in their home. As communities are seldom designed for mobility issues of older people, the lack for community preparedness can result in social isolation and inactivity with consequent effects on health and well-being.

The alternative is the traditional model of retirement living which provides low to high care options derived from care or leisure oriented models that generally result in the segregation of seniors from the rest of the community. Evidence from the literature and the findings of our research suggest that traditional models of retirement living are a 'last resort' for people as they age, with transition to this model of care often associated with higher care needs. A 'third way' is required that enables other living options for people who wish to continue to live independently in the community they call home. This paper presents insights gained from two research projects, one exploring innovative options for aged care communities; the other, examining characteristics of a community that would enable older people to 'age-in-neighbourhood'.

Methods

1) Desk-top study – International Examples of Innovation in Age-Friendly Environments (Baldwin and Osborne, 2010)

The first research project was completed in 2010 as a desktop exercise investigating international examples of innovation in the delivery of age friendly environments which involved co-location, integrated design, and service provision. The investigation of current developments was initiated in late 2010 through telephone and email interviews with five industry executives and eight key industry associations (including seniors, retirement and aged care, childcare and student associations) in Australia. This 'snowball' technique led to identification of, and email exchange with, ten providers across the globe who were adopting innovative integrated practices.

A concurrent literature search included Australian and international technical reports, academic journal articles, and web sourced information. Although a number of potential case studies reviewed through websites and literature illustrated good practice, they were not included in the assessment as they provided a fairly traditional approach. An example of a sound but traditional approach was considered to be integrated graduated aged care within a facility or site where a resident could move from independent living, to assisted living, to full care equivalent of a nursing home.

While the study was limited by a short timeframe and resources, the findings are sufficiently thought-provoking to warrant sharing with the wider professional community.

2) Photovoice and charrettes – Infill Development for Older Australians in South East Queensland (Baldwin et al, 2012)

The second research project was conducted over one year in 2011. Whilst the WHO (1997) Age-Friendly Cities Guidelines suggests that seniors should be included in decisions that affect them, there are few examples in the academic literature where seniors were asked about their preferences for neighbourhoods or housing. As a result, University of the Sunshine Coast led a consortium of non-profit, private and public sector partners to ask seniors in South East Queensland, Australia about their preferences for neighbourhoods and housing. As a sea change location, the Sunshine Coast is already home to a larger than average older population: 17% in 2010, compared to Brisbane's 11%, and the trend is expected to continue.

The research involved two stages with a different method used at each stage:

1. PhotoVoice was used to gain understanding of older peoples' perspectives and develop principles to guide design, during May and June 2011. Participants were asked to take photos of what makes a neighbourhood and accommodation a good place to live as one ages, and what are the barriers. They shared their photos in groups and developed a narrative using their own words and pictures. These were then synthesised into 15 design principles and presented to a professional urban design team in phase 2.
2. A two-phase design charrette process was used to apply the principles and embed participants' perspectives in design typologies during August and September 2011. Participants worked with the design team in groups to develop innovative housing designs for four selected sites in each city. The research culminated in a number of housing typologies that were designed in active collaboration with seniors (Baldwin et al., 2012).



Figure 1: Designer Phil with seniors at the Sunshine Coast Charrette 2

Findings

1. Desk-top study - International Examples of Innovation in Age-Friendly Environments (Baldwin and Osborne 2010)

While the search identified a number of innovative practices around the world, in this paper we focus on ways that enabled older people to remain integrated into a community: one is home-based; the other facility-based. We give a couple of examples of each.

a) Home-based

The Wesley Homeshare program in Melbourne, Australia facilitates elderly or disabled people to remain in their own home with live-in support in exchange for free rent. Wesley Homeshare matches householders with people of integrity to provide companionship and help around the home through interviewing applicants and assessing needs. Homeshare Coordinators draw up and negotiate agreements detailing the arrangements for living together including specific tasks, sharing or managing living costs. Every agreement is different and designed to suit the circumstances of the match. Homeshare monitors the arrangement.

The MedCottage Relocatable Senior Cottages, USA is designed for frailer people who need assistance. The 12-by-24-foot MedCottage is a state-of-the-art, tastefully decorated transportable hospital standard room, which can be located on a caregivers' property. It features:

- A self contained kitchen with a washer-dryer combination and medication dispenser.
- Bedroom with a hospital standard bed and additional accommodation for a caregiver.
- Universally designed, including a handicapped accessible bathroom
- A communication centre provides telemetry, environmental control and dynamic interaction to off-site caregivers through smart and remote monitoring throughout the modular home eg relays health-related messages (such as medication reminders); a video system that monitors the floor at ankle level, so the patient has privacy but caregiver knows if there is a fall; and among other things, a lift attached to a built-in track in the ceiling that can move a patient from bed to bathroom so the caregiver could avoid heavy lifting.

b) Facility-based

Some of the more innovative models of senior living have 'unbundled' care and accommodation, providing for greater choice and independence for people as their needs change. One of the better-known examples is the Humanitas Foundation Apartments for Life in Rotterdam, the Netherlands, comprised of 200 universally designed apartments housed in high density buildings centred around a village square which includes recreation, medical and shopping facilities as well as gardens and studios. People can organise the care they need while being part of a multi-generational community.

Somewhat similar is the Ocean Street Bondi Development, Sydney, Australia being developed by The Benevolent Society with 128 universally designed apartments housed in two medium rise buildings and one existing building. Housing and care provisions are separate to facilitate individualised care from low to high care needs onsite. While the facility

is for seniors, it enables locals to stay in their multi-generational neighbourhood but in more suitable accommodation with care tailored to their needs as they age.

The Pike Place Market, Seattle USA provides affordable housing for elderly, low income and disabled people in 300 apartments in the historic district, accessible to facilities, employment opportunities, fresh food and public transport.

Other facilities deliberately fostered seniors' engagement in activities with external others, including multiple generations. Ebenezer and Fairview Health Services, Minnesota, USA features a 'campus' with a range of independent living units, assisted living, and dementia care plus an adult day care and child day. Its Inter-generational Day Program includes interaction between children and seniors in a purpose-built intergenerational space featuring a kitchen area, computer centre, arts and crafts and outdoor play area. Other partnerships in the USA are between the care facility and nursing or medical schools, which provide mutual benefits of internships and additional healthcare. At Ithacare Longview, NY activities include an intergenerational choir, theatre and university lectures and tutorials in conjunction with the adjoining University.

2) Photovoice and Charrettes - Infill Development for Older Australians in South East Queensland (Baldwin et al., 2012)

An outcome of the PhotoVoice exercise was development of 15 principles (Table 1), derived from participants' photos, to guide design of neighbourhood and accommodation environments for older people. The highest number of photos were about issues of residence accessibility as one ages, revealing real concerns about lack of universal design in dwellings: for example staircases and narrow steps and non-adaptable kitchens and bathrooms.

Table 1: Principles for Neighbourhood and Dwelling Environments for Older People

Neighbourhood Scale	Dwelling Scale
1) Walking Paths and Walkways	9) Density and Visual Amenity of the built form
2) Proximity to Services and Facilities	10) Universal Design
3) Outdoor Environment and Use of Green Space	11) Sustainable Design Features
4) Public Transport and Connectivity	12) Private and Shared Outdoor Space
5) Pedestrian Safety in Neighbourhoods and Towns	13) Versatile Spaces
6) Safety for Older Motorists in Neighbourhoods and Towns	14) Maintenance
7) Sense of Community	15) Security in the Home
8) Perceptions of Personal Safety	

While many of these principles are consistent with WHO's Age-friendly Cities Guidelines (2007), a significant outcome of the research is the importance to our participants of some additional features: private space for hobbies, private outdoor space (patio), shaded outdoor spaces, sustainable design and visual amenity. Providing living space of adequate size and design that is safe and accessible to outdoor areas such as patios and balconies, can be an economical way of providing useable space and desired visual and practical amenity.

In addition, the design charrettes provided an opportunity for seniors to interact with urban designers and planners, with mutual learning about the challenges of meeting the design principles. Seniors expressed concerns about density and a clear preference for medium rise buildings rather than high rise. However, this may be as much about aversion to aspects often associated with high rise, such as contemporary minimalist concrete apartment designs. Seniors demonstrated a clear preference for visual amenity and the physiological benefits of being able to control the temperature and climate in the residence through accessing natural sunlight and ventilation enabled by thoughtful design. Concerns were also expressed about privacy, noise, and safety in case of electricity failure resulting in need to use stairwells to access the ground rather elevators in multi-dwelling environments. As a result, designs that appeal to seniors (and no doubt other potential residents) are those dwellings that efficiently mitigate the challenges of multi-dwelling living through their design.



Figure 2: Intergenerational interaction adjacent to a university

Some residents expressed an interest in designs that also enabled the opportunity for social exchange. For example, one design that appealed reflected the potential for intergenerational interaction in a multi-building complex adjacent to a university (Figure 2). Seniors liked the idea of one building being for seniors; the other for international or post-graduate students, with the view to social exchange between different age groups and cultures.

Discussion

From a design perspective, this trend also liberates the way housing and care options can be conceptualised and designed for seniors, to allow for more innovative approaches. The findings of these two research projects clearly converge to provide key lessons in the housing, neighbourhood and care preferences of seniors. At the dwelling scale, universal design and unbundled care and accommodation are critical facilitators of enabling seniors to

age in place. Whether living independently or in a seniors' only community, older people value opportunities to be physically and mentally active, involved in work, hobbies, and volunteer work within the broader community. What is required, according to international trends and the preferences of seniors in a South East Queensland context are additional choices beyond staying at home (ageing-in-place) or segregated retirement living. A third way, universally designed dwellings, can provide the opportunity for residents to stay in their home regardless of how their needs, or that of their family, change over the life course.

However, universally designed dwellings are not a panacea for social isolation among senior cohorts. Age-friendly neighbourhoods also need to be incorporated into planning strategies, with safe shaded walking paths, and dwellings accessible to services, facilities and transport as essential components to support seniors' mobility and reduce social isolation. Such active ageing is strongly associated with better health and wellbeing outcomes for seniors (Golding et al., 2010:9). This suggests that age-friendly neighbourhoods and universally designed dwellings unbundled from care will provide more sustainable options that will afford seniors with greater choice and independence.

A significant outcome of the research was a demonstration of how a range of housing typologies suitable to seniors might fit together in an urban neighbourhood to increase housing choice for seniors, allowing "Ageing in Neighbourhood". The dwelling typologies ranged from 2 storey townhouses in a complex of 12 dwelling units, to 3-5 storey options. All typologies were prefaced on the design brief developed in collaboration with the senior participants through the PhotoVoice and design charrette process: incorporating universal design, through ventilation and natural sunlight for each dwelling and communal spaces. While lifestyle and dwelling preferences of the participants dictated that different typologies appealed to different participants, one typology in particular met with considerable approval from residents in both case study locations.

A 2 storey, 12 dwelling complex (in 2 blocks of 6) appealed to seniors firstly due the size of the 'community', and secondly due to the orientation to maximise opportunities for natural light, through ventilation and a sense of privacy and individuality. Of particular interest in a planning context was that in this typology, seniors traded off car parking spaces for a communal area and to reduce the cost of dwellings. The complex was designed to include half of the normal code requirement for car parks (6), separately titled. It could be argued that in moving towards more sustainable urban forms, dwellings in close proximity to public transport and facilities should be eligible for planning code exemptions to reduce the number of car parks, not only to reduce the cost of dwellings but also to provide incentives to developers to incur the marginal expense of incorporating universal design into the development.

Conclusion

The Desk-top study investigating models of care and accommodation for seniors overseas and Australia provides insight into innovative responses to the global trend of population growth and ageing which could be more widely adopted in the Australian context. Of particular merit is the concept of unbundling care and accommodation options for seniors so that choice and independence are at the forefront of planning and policy options. The PhotoVoice and Design Charrette research project demonstrated that seniors in South East Queensland welcomed not only the concepts of the international examples that unbundled

care and accommodation, but also had clear preferences for universal design and other physiological aspects that are important in the South East Queensland climate and culture.

The participatory approach of the PhotoVoice and Design Charrette research was instrumental in exploring the contribution that planning can make and the trade-offs that seniors are willing to make to achieve suitable design solutions. It also identified barriers to innovation in contemporary housing challenges.

Further, the research outcomes illustrate the significance of the participative research approaches used to inform innovative, sustainable approaches to urban planning. Whilst seniors may immediately benefit from these innovative planning approaches, people of all ages benefit from accessible homes and neighbourhoods including young children, parents and persons with physical challenges from every life stage. If planning is to provide places that are for 'the greater good', our challenge then as planning and design practitioners is to genuinely listen and to authentically respond.

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