



Institute for
Sustainable Futures

lsf.uts.edu.au

Kick-starting Cohousing for Older People

Literature Review

About the authors

The Institute for Sustainable Futures (ISF) is an interdisciplinary research and consulting organisation at the University of Technology Sydney. ISF has been setting global benchmarks since 1997 in helping governments, organisations, businesses and communities achieve change towards sustainable futures. We utilise a unique combination of skills and perspectives to offer long-term sustainable solutions that protect and enhance the environment, human wellbeing and social equity.

For further information visit: www.isf.uts.edu.au



Institute for Sustainable Futures
University of Technology Sydney
PO Box 123 Broadway, NSW, 2007
www.isf.uts.edu.au

Disclaimer The authors have used all due care and skill to ensure the material is accurate, as at the date of this report, however, UTS and the authors do not accept any responsibility for any losses that may arise by anyone relying upon its contents. In particular, tariff rates and regimes may vary significantly from those used in this work and have a significant effect on the results.

© UTS December 2018

ISF Research Team

Chris Riedy

Professor of Sustainability Governance

Caitlin McGee

Research Director

Matt Daly

Senior Research Consultant

Emilia de la Sienra

Senior Research Consultant

Steering Group

ISF Research Team

Frouke de Reuver, NSW Office of
Environment and Heritage

Kate Hopkins, NSW Office of
Environment and Heritage

James Brown and Lisa Wilson Whatley,
Common Equity NSW

Guy Luscombe, The AGENCY Project

Citation

Please cite as:

Riedy, C., Daly, M., McGee, C., and De la Sienra, E. (2018) *Kick-starting Cohousing: Literature Review*. Institute for Sustainable Futures, University of Technology Sydney.

Acknowledgements

We would like to thank the members of the Steering Group and Advisory Group for the Kick-starting Cohousing project for their advice and input to this updated review.

Advisory Group

ISF Research Team

Steering Group

Muriel Dalmasso / Karn Nelson, The Whiddon Group

Alicia Pozniak, Government Architect's Office, NSW

Cameron Tonkinwise, Professor, School of Design, Faculty of Design, Architecture and Building, UTS

Jason Twill, Urban Apostles and UTS

Keryn Curtis, The AGENCY Project and Benevolent Society

Connie Comber, Positive Steps

Elena Pereyra, Cohousing Australia

Cecille Weldon, Weldonco

Barbara Squires, Barbara Squires Consulting

Jane Kern, Bank Australia

Janet Chappell, Landcom

David Adamson, Compass Housing

Jason Kara, NSW Department of Family and Community Services.

Contents

1	Introduction	4
1.1	What is cohousing for older people?	4
1.2	About this project	5
2	Social trends: Ageing and housing for older people	6
2.1	Ageing Australia: Demographic trends	6
2.2	Where do older Australians live?	8
2.3	Are the needs and expectations of older people changing?	11
3	What is cohousing?	14
3.1	Design	15
3.2	Leadership and governance	17
3.3	Title	19
3.4	Demographics	20
3.5	How is cohousing different from other models?	20
3.6	Why cohousing for older people?	21
3.7	Summary: Cohousing Characteristics, Options and Principles	23
4	Cohousing models for older people	25
4.1	Small-scale cohousing	26
4.2	Deliberative development	31
4.3	Cooperative housing	35
4.4	Incorporating cohousing principles into conventional retirement living models	38
5	Sustainability benefits of cohousing	41
5.1	Environmental benefits	41
5.2	Social benefits	42
5.3	Economic benefits	43
6	Land acquisition	45
6.1	Barriers	45
6.2	Responses	45
7	Financing	49
7.1	Barriers	49
7.2	Responses	49
8	Legal/Regulatory	52
8.1	Barriers	52
8.2	Legal Structure Responses	52
8.3	Planning responses	54
9	References	55

1 Introduction

Australians are becoming an increasingly aged population. This is likely to throw up major challenges for meeting demands for aged care services in the future. Further, Australia's next generation of older people — baby boomers — are also likely to demand greater choice and diversity of options for services and housing.

Cohousing is a tested housing model that has been used for decades in northern Europe and the US but is little known in Australia. It has the potential to offer benefits to older people in Australia.

Cohousing is a form of community living that contains a mix of private and communal spaces, combining autonomy and privacy with the advantages of community living. It can occur at a variety of scales, from multi-unit developments to small, self-organised clusters of 2-3 households.

Cohousing has some characteristics that make it distinct from other forms of shared or communal living:

- Cohousing communities are usually designed, organised and managed by their residents. Residents are generally involved from the planning stage to design the community, and are engaged in active participation and self-governance once the project is established.
- Cohousing communities are generally designed to encourage community interaction and collaboration. Shared spaces may include common houses, communal kitchens, and shared facilities such as laundries or simply outdoor spaces designed for interaction. Buildings are designed to maximise opportunities for community interaction using elements such as sight lines and pedestrian flow to bring people together, while not forcing interaction.
- Cohousing communities do not have communal economies (unlike communes) nor do they need to have shared ideologies (unlike intentional communities). Rather, they are defined by a commitment to neighbourliness and community living.

1.1 What is cohousing for older people?

Cohousing has offered an alternative to mainstream housing options for older people in northern Europe for several decades and, more recently, communities have also emerged in the UK and the US. Cohousing provides particular benefits for elderly people, including:

- Providing informal care through community contact, allowing older people to age in place, contribute skills and often reduce care costs
- Increasing social contact by fostering a vital community that is truly connected, reducing the social isolation often experienced by older people
- Providing an opportunity for older people to downsize, without having to move to a retirement village or nursing home
- Giving opportunities for learning and skill exchange through shared activities and initiatives
- Participating in the community in ways that keep older people active and engaged, including the ability to manage decisions about their neighbourhood

- Reducing single person dwellings, cutting living costs, demand on housing supply and the physical and environmental footprint of housing
- Providing intergenerational connections and skill sharing through intergenerational living (depending on the model).

1.2 About this project

This current project – *Kick-starting Cohousing* – builds upon previous cohousing research undertaken by the Institute for Sustainable Futures. Our previous research (<https://www.uts.edu.au/research-and-teaching/ourresearch/institute-sustainable-futures/our-research/social-change-4>) identified significant potential for cohousing to address the housing challenges of older people by improving affordability, wellbeing, social connection and sustainability. Working with a broad cross-sectoral network of stakeholders, we identified emerging cohousing projects but found that they face cultural, regulatory and financial obstacles. Developing and sharing strategies for overcoming these obstacles is the most important next step to move cohousing from fringe applications to the mainstream.

Our previous work identified four distinct cohousing models that are relevant to the NSW housing market: 1) Rental cooperative housing; 2) Incorporation of cohousing principles into retirement villages; 3) ‘Collaborative housing’, a group of prospective owners come together to create their own multi-unit development with some shared spaces/facilities; and 4) Small-scale cohousing, single dwelling blocks are converted to accommodate 2-4 separate dwellings with some shared spaces/facilities. Each of these models face financial, legal, regulatory and cultural barriers that hinder their uptake.

The current project – *Kick-starting Cohousing* – aims to help bring cohousing from the fringes to the mainstream for older people in NSW. It has the following specific objectives:

- Deepen knowledge of barriers to cohousing for older people in NSW and ways to overcome those barriers. This work will particularly focus on financial, legal and regulatory barriers.
- Document the economic, social and environmental benefits of cohousing
- Identify and document case studies of cohousing for older people that demonstrate strategies for overcoming barriers
- Collect and share stories from those living in cohousing to help potential residents to better understand what life in cohousing would be like
- Build an interactive web guide to cohousing for older people that provides guidance on how to do cohousing and how to overcome known barriers.

This literature review is an update to the literature review prepared for the previous research project. It therefore discusses key demographic and social trends in ageing and housing for older people in Australia. It then considers the characteristics of cohousing, and how and why it might be a suitable alternative housing model for older Australians. It outlines the possible cohousing models, and provides some case studies. It builds upon the previous literature by providing a focused review of the barriers to cohousing, and the economic, social and environmental benefits of cohousing.

2 Social trends: Ageing and housing for older people

2.1 Ageing Australia: Demographic trends

It is a well-publicised demographic trend that Australia, like many nations around the world, is home to an increasingly aged population. In 2008, one in seven Australians was aged over 65 years (Productivity Commission, 2008). In 2016, 16% of the NSW population was aged over 65 years, and this is expected to rise to 25% by 2056 (NSW Government, 2016). It is expected that 10% of the population of NSW will be over 80 years of age by 2056, and there will be a tenfold increase compared to 2016 in the number of people aged over 100 years in NSW (NSW Government, 2016). Further, increased longevity is a trend set to continue, with the life expectancy for NSW expected to rise to 88.6 and 91.4 for men and women respectively by 2056 (NSW Government, 2016). This is particularly salient for discussions of aged care, as those in the oldest group tend to require the highest level of care.

The aged dependency ratio—that is, the proportion of aged people in our population who are not in the labour force relative to the number of our population in the labour force—will rise from 24% currently to 42% by 2056 (NSW Government, 2016). The increase in the aged dependency ratio is particularly pronounced in regional NSW, where it will be close to 50% by 2031, and is greater in the Illawarra and Hunter/Central Coast regions than in Sydney (NSW Government, 2016). A high aged dependency ratio significantly skews the cost of aged care provision relative to GDP. Thus, over the next 40 years, Australia will need to provide aged care services to a much larger cohort (both in relative and absolute terms).

2.1.1 Income, wealth and inequality

The 'baby boomers' (the generation born between 1946 and 1961) are now reaching retirement age. The literature suggests that not only is this next generation likely to be larger than any generation before, it is also likely to have a wider range of demands for aged care services due to changes in demographic profile. Higher incomes, higher asset worth and easy access to credit has resulted in increased living standard expectations for retirement amongst baby boomers (KELLY Research, 2012). Indeed, baby boomers represent the wealthiest households in Australia, having greater average net worth than other age groups (Productivity Commission, 2015). This wealth is likely to allow many of them greater choice in accessing services. For the wealthier baby boomers, community care is made more tenable by their financial autonomy. This will allow them to pay for services to support them in their own homes or in retirement villages, although drawing on home equity to pay for retirement is generally seen as a last resort for older Australians, and this mindset may present a barrier to accessing this wealth (Productivity Commission, 2015).

However, despite many policies assuming that large numbers of baby boomers will be able to provide for themselves (Quine and Carter, 2006), the vast majority of older Australians receive their income through the age pension and other government allowances (Productivity Commission, 2015). The average superannuation balance for 65-74 year olds is over \$300,000, however this figure can be deceiving, as the median superannuation balance for the same cohort is zero (Chester, 2015). Many older people than previously have significant levels of debt. KELLY Research (2012) found that households aged 50-54 had a debt to superannuation ratio of 91 per cent and this

figure only fell to 42 per cent for households aged 60-64 that were approaching pension eligibility. Many of these households will use their superannuation to reduce debt, resulting in a loss of income available for their retirement years (KELLY Research, 2012). This means that large numbers of Australians will face challenges in affording aged care, especially in seeking alternative options. Retirement villages and market rents may be unaffordable for many older Australians, and staying in their own homes may be unfeasible for many, meaning they will require affordable rental retirement accommodation. Affordability and choice will thus remain a key challenge for aged care service provision in future.

2.1.2 Employment

Baby boomers are the first generation to experience a 'long retirement'—with many able to expect two decades of life following their exit from the workplace (Humpel *et al.*, 2010). This may lead to new demands and opportunities for catering to older populations, as they are likely to have different expectations to previous generations as to how they will spend this time.

Many baby boomers continue working in some capacity or another into their retirement—largely, they report, because they enjoy it (Quine and Carter, 2006). This is less often the case for blue collar workers, many of whom had strenuous manual jobs, but is common for white collar workers, who feel that their experience provides them with knowledge and skills that they can continue to share (Quine and Carter, 2006). Thus, many baby boomers will not expect to live an idle retirement, but will look to be engaged and active—in the workplace and elsewhere.

2.1.3 Health

Future generations of older people are more likely than previous generations to suffer from neurodegenerative diseases such as dementia (Productivity Commission, 2008), to have complex care needs due to severe disabilities (Productivity Commission, 2008), be obese and have related health problems (Quine and Carter, 2006) and to have diabetes (Humpel *et al.*, 2010). Those who were aged 65 in 2012 can expect to live without disability or limitation until 74 (men) and 75 (women), and would then live with a disability or limitation for 7 years before spending an average of 4 (men) and 6 (women) years with a severe disability or limitation (Australian Institute of Health and Welfare, 2014). This will likely mean an average of 11 (men) and 13 (women) years of living with care requirements, with these care requirements increasing in the final 4-6 years.

As a result, baby boomers are more likely to make use of health services than previous generations, placing increased demand upon these services. This means that community care services may be required to deal with more complex care requirements than has been the case for previous generations.

2.1.4 Other demographic factors

There has been a 50% increase in the number of older people at risk of homelessness in NSW in the last five years. This is attributed to an insecure and unaffordable private rental market, a lengthy social housing waiting list, a homelessness service system that is not resourced to respond to older people, and poor linkages between the housing and aged care sectors (Fiedler and Faulkner, 2017).

Older single women have been identified as a group at particular risk of homelessness and with great potential to benefit from cohousing. The number of older women in the private rental market is increasing (Homelessness NSW, 2016) and the impact of

lifelong social and economic disadvantage can mean that these women face homelessness due to relationship breakdown or other misadventure.

Many baby boomers have experienced divorce or separation, meaning there will be many single older people requiring care. Interestingly, male life expectancy has been rising faster than female life expectancy, reducing the gap between male and female longevity. This has actually contributed to an increase in the prevalence of couple households rather than single households amongst those aged over 65 years (Productivity Commission, 2015). This will likely impact the way older people make housing decisions, as having an informal carer can delay entry into residential aged care (Productivity Commission, 2015).

Older age cohorts are also progressively reflecting Australia's ethnic diversity (Productivity Commission, 2008). This is likely to create demand for a greater diversity of culturally appropriate, flexible and consumer-centred aged care services (Productivity Commission, 2008).

2.2 Where do older Australians live?

The vast majority of Australians (89%) aged 65 and over live in private homes (including private rental, social housing and mobile home communities). Around 4.5% live in accommodation for retirees such as retirement villages, 6.6% live in residential aged care, and 1% live in hospital (Productivity Commission, 2015). The living standards of older Australians become increasingly dependent on the characteristics and quality of accommodation as they age, with desirable characteristics changing as people pass through what are termed the active, passive and frail stages of retirement (Productivity Commission, 2015).

2.2.1 Remaining in the home

The private home is the housing of choice for older Australians, with older people overwhelmingly remaining in their homes and more than 80% of people over 60 years old indicating that living in their own home is their preferred living arrangement (Productivity Commission, 2015). Whilst the vast majority are home owners, a small but significant proportion of older Australians (13.4%) are renters, and they are over-represented amongst both long-term renters and public housing tenants (Productivity Commission, 2015). Older Australians who find themselves in the private rental market are particularly vulnerable to housing stress. In 2009, around 77,000 older Australians in private rental were in housing stress, defined as a situation where housing costs exceed 30% of gross household income, particularly for households on low- to-moderate income. Of these, 35,000 were paying over half their income in rent (Morris, 2009a).

Given these high housing costs, many older private renters report finding it hard to "have a life they valued" after paying for housing costs (Morris, 2009b). Many older Australians fall into the category of "marginal renters", having precarious tenancies in arrangements that may leave them socially and physically isolated and at risk of homelessness through forced eviction, breakdown of existing relationships, affordability challenges or inaccessible housing design (Goodman *et al.*, 2013; Petersen *et al.*, 2014). Older private renters on low incomes are financially vulnerable to the loss of a partner—a situation which disproportionately affects older women (Wood *et al.*, 2008). As noted above, single older women are increasingly at risk of homelessness, and many find themselves in vulnerable and precarious situations within the private rental sector (Darab and Hartman, 2013).

Older Australians give a number of reasons for preferring independent living, with a desire for greater autonomy (Productivity Commission, 2008), a desire to retain private leisure spaces such as gardens, and a reluctance to move away from social networks including family, friends and neighbours being key (Crisp *et al.*, 2013). Many elderly people cannot remain in their own home without assistance, and thus rely on care provided in their home, known as 'community care'.

The preference for living in private homes is reflected in government policy, which has placed increasing emphasis on community care as a means of providing for older Australians. Community care services are typically provided by a mix of informal carers (family and friends) and community care providers—usually subsidised through government programs. Roughly 800,000 older Australians receive some form of Home and Community Care (HACC) services, whilst over 80,000 accessed home care packages (Productivity Commission, 2015). Most of these clients (90%) receive only a small amount of care (less than two hours service per week), though some receive as much as 28 hours per week (Productivity Commission, 2008). The Productivity Commission has advocated for continued governmental support for measures that do not impede aging in place, as not only is it the preferred option for most older Australians, delivering home care is more fiscally sustainable for the government, requiring much less public funding than residential care (Productivity Commission, 2015).

The number of community care places has increased rapidly in the last 20 years, with a growth rate of 3.9% per year between 1996 and 2007 (Productivity Commission, 2008). Since 2006, the share of subsidised community care places has grown from 2% of care services to 25% by 2014 (Productivity Commission, 2008; Aged Care Policy and Reform Group, 2014)

Growing numbers of older Australians, both as a proportion of the population and in total numbers, will mean that aged care provides for a declining proportion of Australians. This will make community care an increasingly important component of housing for older people. However, ageing in place is likely to become more challenging for older Australians due to a number of factors.

Ageing in place relies upon the availability of informal and unpaid care. The relative availability of informal carers is expected to decline over the coming decades: the demand for such care is likely to rise by 160% between 2001 and 2031, while supply will increase by less than 60%, failing to keep pace with growing needs (Productivity Commission, 2008). This will lead to a shortfall of 600,000 carers, potentially undermining the ability of community care to provide for older Australians (Productivity Commission, 2008).

2.2.2 Mobile home communities

A mobile home community refers to caravan parks and manufactured home estates such as residential parks and lifestyle villages. These are communities in which the park owner owns the land, with the homes (commonly caravans or cabins) either rented or owned by the resident. In 2011, 2.1% of Australians over 65 lived in a mobile home community. There were 165 manufactured home estates in Australia in 2013, with strong growth in those marketed specifically towards older Australians in the past few decades. There are a further 750 mixed use caravan parks where permanent residences were available (Colliers 2015 cited by (Productivity Commission, 2015). Compared to retirement villages, the average senior resident of a mobile home community is much younger (67 years old) and motivated to choose this housing option for financial and location reasons rather than health reasons (Productivity Commission, 2015).

2.2.3 Retirement villages

Retirement villages are self-funded aged living options, which usually sit somewhere between community care and residential aged care along a spectrum of aged housing options. Retirement villages usually involve the provision of care and services, though at a less intensive level than that provided in residential aged care. Retirement villages provide a degree of autonomy, but usually provide opportunities to access additional paid help such as cooking, cleaning and in-home care (Property Council of Australia, 2014). They usually involve some degree of community activities in which residents may choose to participate, and some shared facilities such as pools, gardens and fitness centres.

Retirement village residents usually have leasehold tenure over their dwelling—that is, they pay an ‘incoming’ payment (which is often refundable upon leaving the community, minus management fees and other costs) in addition to a monthly lease fee (Property Council of Australia, 2014). Some retirement villages involve freehold tenure, in which the resident owns their dwelling outright. Management fees are still normally accrued under these arrangements, payable on exit of the village (Property Council of Australia, 2014).

About 185,000 residents live in over 2000 retirement villages across Australia (Property Council of Australia, 2014). Forecast demand varies: Crisp *et al.* (2013) estimate that an additional 65,000 residences will be required by 2028 while the Property Council of Australia (2014) estimates that demand for retirement village living will double by 2025 and that demand will total over 380,000 units. However, both projections reflect a growing interest in more autonomous forms of aged housing that allow ageing in place.

Older people tend to move to retirement villages due to declining health or loneliness (especially older retirees) or opportunities such as improved quality of life, a community environment, health and fitness facilities (cited by younger retirees as a motivator) and supported living services (Crisp *et al.*, 2013). The reduced need for home maintenance, reduced burden on families and the convenient location near relevant services were also cited as motivators for moves to retirement villages. Others may avoid retirement villages due to perceptions of these communities as isolating, expensive and involving a loss of privacy (Crisp *et al.*, 2013). A concern over a lack of privacy was seen as a key downside of ‘condensed housing villages’; Crisp *et al.* (2013) note that ‘the social benefits potentially provided by retirement village living may be impeded if an adequate balance is not achieved between desired levels of social engagement and privacy’.

Social reasons (such as opportunities to socialise with other older people) for moving to retirement villages ranked below practical reasons (such as access to health care service) (Crisp *et al.*, 2013). However, Crisp *et al.* (2013) note that these secondary concerns such as feelings of social isolation and loneliness may only become relevant to decision making once primary and practical concerns have been addressed.

The Property Council of Australia claims that retirement village living saves Australia more than \$2bn per year in delayed aged care entry and avoided health care visits and hospital admissions (Property Council of Australia, 2014).

2.2.4 Aged care

Residential aged care provides a more intensive degree of care and support for older people. Aged care facilities are appropriate for those incapable of living independently, usually providing care including daily personal care (Property Council of Australia, 2014). Residential aged care usually involves an upfront lump sum (some or all of which may be refundable upon leaving the community) in addition to a daily accommodation payment (Property Council of Australia, 2014)—an amount which is

partially subsidised on a sliding scale by the government depending upon a residents' assets.

In 2014, there were over 230,000 Australians living in residential aged care (Productivity Commission, 2015). Most of these (74%) were aged over 80 and a majority (57%) were over 85. A significant proportion of the residents were women (70%) and 64% of these women in aged care were widows (Australian Institute of Health and Welfare, 2012).

Most residents of aged care do not return to their home or other living arrangements, with 91% of residents dying in aged care (Australian Institute of Health and Welfare, 2012). Residential aged care is described as effectively becoming a 'end of life service' (Productivity Commission, 2015). Many people enter residential aged care for short stays (around 38% stay less than one year), though around 44% of people stay between one and five years. The average length of tenure is 2 to 3 years, although anecdotal reports suggest average tenure is shorter still, and decreasing (Productivity Commission, 2015).

There is expected to be a four-fold increase in demand for aged care by 2047 (Productivity Commission, 2008). Increasingly, these homes are larger residential facilities: the proportion of facilities with fewer than 40 beds decreased significantly in recent years (Productivity Commission, 2008). Aged care providers are largely not-for-profit, though the share of residential care beds provided by for-profit providers is increasing (Productivity Commission, 2015).

The recent past has seen a change in the standard type of accommodation offered in residential aged care, with individual rooms replacing multi-bed wards, and resident expectations leading to facilities that are described as 'less institutional with resident amenities, recreation and rehabilitation, storage and common areas that are more expansive' (Grant Thornton 2008, p. 5, cited in Productivity Commission 2015). Increasing land costs means many new facilities are established in outer suburbs, often further away from the existing networks and families of older people (Productivity Commission, 2015).

Aged care is not a choice for most who end up there—for the majority, it is a necessity. Living in aged care can have profound impacts on residents—estimates of depression tend to be higher for people living in residential care facilities than for other tenures, with as many as 30% of low care residents and 50% of high care residents suffering depression (Hammond Care Group 2004; Snowden & Fleming, 2008).

2.3 Are the needs and expectations of older people changing?

Presently, a majority of older Australians remain in their own homes until the end of their lives (Productivity Commission, 2008). Research indicates that Australian baby boomers—who are currently beginning to reach retirement age—will not want to move into an 'aged care' phase of their lives, instead striving to continue their current lifestyle into retirement (Quine and Carter, 2006). This generation, which has 'redefined marriage, parenthood, middle age and menopause', is likely to want to redefine old age and retirement, too (Hamilton and Hamilton, 2006). This redefinition of ageing is being seen in many baby boomers' 'preoccupation with not looking old, keeping fit and maintaining independence' and their determination not to become a burden or be seen as irrelevant (Rogers, 2014).

Baby boomers are 'characterised as being more individualistic, liberal and assertive' and habituated to 'having a wider choice in the goods and services they consume'

(Productivity Commission, 2008). Further, their high living standards (thanks to high incomes and asset value increases in their working years) have led to increased expectations about living standards in retirement (KELLY Research, 2012). These characteristics are likely key in their desire to remain in the home or adopt new 'lifestyle' experiences such as resort-style retirement villages which allow for greater autonomy than residential aged care (Productivity Commission, 2008). Thus, they are more likely to expect to be able to tailor and coordinate their own health and care packages, rather than passively accept current offerings (Quine and Carter, 2006).

Baby boomers are less likely than previous generations to accept care from their adult children (Quine and Carter, 2006). They are also less likely to be offered it, given demographic changes that make such arrangements challenging, including baby boomers having fewer children and being more mobile than previous generations (Quine and Carter, 2006). As women are more likely to be working than several decades ago, they are less available to provide care to their parents than might have been the case for previous generations.

Crisp et al report that while older people recognise a need to downsize to respond to an inability to maintain a large garden or home, older people would prefer to retain a manageable space (including gardens) rather than do away with such opportunities for leisure activities altogether (Crisp *et al.*, 2013). Most older people – including even those with disability or chronic illness—don't need assistance with their day-to-day living (Productivity Commission, 2008). Rather, they seek appropriate and occasional care combined with an autonomous and independent lifestyle.

Baby boomers reportedly wish to live in intergenerational communities (that is, not communities restricted to people their own age) and to retain their existing social networks (Quine and Carter, 2006). The Productivity Commission reported a strong preference for independent accommodation as opposed to communal facilities, with 92% indicating privacy as being a high or very high priority (Productivity Commission, 2008).

There is likely to be increasing demand for higher-end community care to meet the increasing care needs of those determined to stay in the home (Productivity Commission, 2008).

However, the demographic change that is approaching may present challenges for the current model of care—with an increasing proportion of the population over the age of 85, the demand for assistance will rise (over 85% of people aged over 85 require some form of assistance) (Productivity Commission, 2008).

The number of Australians living with dementia is expected to reach around 730,000 by 2050 (Productivity Commission, 2008). Dementia is associated with high care needs due to very low self-care capacity amongst patients. It is expected that the cost of community care will rise over coming decades due to the incidence of dementia patients with multiple and complex care needs (Productivity Commission, 2008).

2.3.1 Challenges for the care industry

Over the next several decades there will be challenges in securing a sufficient supply of skilled personnel to meet demands both for residential and community care needs (Productivity Commission, 2008).

There is a need to consider how 'consumer-centred' care might provide potential for older people to have some say in the type of care services that they receive, rather than treating them as passive recipients of services (Productivity Commission, 2008). Further, maximising the potential of home-based community care and alternatives to

residential care will help improve service provision, reduce costs and maximise outcomes for older Australians (Productivity Commission, 2008).

Given the number of elderly Australians who will be dependent on the old age pension, and will thus have limited income and asset worth (Productivity Commission, 2008), Australia will face a major challenge in providing an equitable range of options for lower-income older people. The number of lower-income people aged 65 and over living in rental households is projected to increase by 115% from 2001 to 2026, which far exceeds the supply capacity of the social housing system (Jones *et al.*, 2007). Presently, wealthier Australians are already presented with a broader range of choices than lower-income older people due to affordability concerns around retirement villages, community care and some aged care.

3 What is cohousing?

Cohousing originated in Denmark, with the first recognised cohousing community dating back to 1967 (Ahn, Tusinski and Treger, 2018). The idea had spread across Europe and into the United States, but remains a very small proportion of total housing. Even in Denmark, only 1% of people live in cohousing (Ahn, Tusinski and Treger, 2018)

Cohousing is a form of community living that contains a mix of private and communal spaces, 'combining autonomy of private dwellings with the advantages of community living' (Williams, 2005a). It can occur at a variety of scales, from multi-unit developments (usually between 4 and 30 households) to small, self-organised clusters of 2-3 households. Most cohousing models attempt to respond to 'triple bottom line' challenges, by securing the 'three pillars of sustainable lifestyles': i) social (through being community-oriented and facilitating social interaction), ii) environmental (through efficient designing and shared resources) and iii) economic (through striving to achieve affordability for residents) (Tummers, 2015).

Variations on cohousing models abound, but a few key elements appear to be consistently identified across the literature as being common to most cohousing developments. These common factors include:

- A shared purpose or intention that binds the cohousing community together and is expressed at the outset (Ahn, Tusinski and Treger, 2018)
- Resident involvement in the design of the cohousing development (Durrett, 2009), although the degree of this involvement does vary (Ahn, Tusinski and Treger, 2018)
- Self-governance and active sharing by residents of the community (Brenton, 2013; Ahn, Tusinski and Treger, 2018)
- Common, shared facilities (Durrett, 2009; Ahn, Tusinski and Treger, 2018)
- Use of social contact design (Williams, 2005a) and spatial arrangement (Ahn, Tusinski and Treger, 2018) in planning the development to encourage community interaction, placing an emphasis on communality rather than privacy (Jarvis, 2015).

Unlike communes and intentional communities, cohousing does not generally feature:

- A shared community economy (Glass, 2009)
- A common ideology (Williams, 2005a).

Most existing cohousing communities have developed around shared aims or values (Chiodelli and Baglione, 2013; Ahn, Tusinski and Treger, 2018), but cohousing is characterised by a pragmatic approach to how these values are reflected in daily life (Meltzer, 2010), and a common ideology is not a prerequisite for a cohousing community (Williams, 2005a).

Cohousing, with its deliberate focus on community interaction and communal living, is often seen as a response to the isolation experienced by many due to suburbanisation and security-focused neighbourhood design (including gated communities, internal-access garages and fenced yards) (Vestbro, 2000). Typical values expressed by cohousing groups include solidarity, inclusion, social activism and mutual support (Chiodelli and Baglione, 2013). Cohousing, through a design that emphasises shared space and social interaction and gives residents a greater say in the design and

ongoing governance of their home and community, goes some way to “combating the alienation and isolation many experience today, recreating the neighbourly support of a village or city quarter in the past” (The Sheffield Cohousing Network, 2018)

The features listed above are common across many projects in the US and northern Europe. However, cultural variations and market preferences may mean that variations on this model are more appropriate for the Australian context. For example, a developer-led model that has some resident involvement in design and community decision making may be seen as attractive, but Australians may not be so interested in leading the design and development process or being involved in governance and management, which might be better coordinated by a developer or aged care provider. Further, given the stated preference of older Australians for privacy rather than communal facilities that is mentioned above, there may be less emphasis on common facilities in Australian models of cohousing.

The remainder of this section discusses these features, and explains how cohousing for older people might differ from similar models such as intentional communities, share housing and retirement villages.

3.1 Design

The design of a cohousing community is generally developed by the residents, led either by the resident group themselves, by a facilitator (such as an architect) or by a developer (Durrett, 2009). Often drawing on principles of deliberative design/development, these processes ensure that the values of the community are reflected in the neighbourhood design.

Multi-unit cohousing communities use social contact design (or some variant of it) to encourage social interaction in neighbourhoods (Williams, 2005a). Social contact design includes principles that are intended to emphasise community. In this way, they differ significantly from standard, speculative development designs that tend to be designed and built with privacy, rather than communality in mind (Jarvis, 2015). Key features of social contact design usually include:

- Higher densities to ensure proximity between neighbours
- Good visibility of public and semi-private (e.g. porches) spaces
- Clustering of dwellings with entrances in close proximity to one another
- Shared facilities such as laundries, waste units, gardens, sheds
- Car parking located on the periphery of communities to encourage walking (Williams, 2005a).

Each of these features is intended to result in increased incidental, informal interactions between neighbours. The literature seems to agree that cohousing is characterized by ‘the coexistence of both residential functions and communal spaces and facilities’ (Chiodelli and Baglione, 2013). More deliberate and formal/coordinated interactions between neighbours usually take place in a common house. Cohousing communities usually involve clusters of self-contained individual homes (often smaller than would be standard due to the additional shared space) around a ‘common house’ or other shared spaces and amenities (Brenton, 2013). Common houses usually include a shared kitchen, lounge and dining area and, depending on the interests and resources of the group, a range of other facilities (such as artists’ studios, workshops, etc.) (Scanlon and Arrigoitia, 2015).

Ahn et al. (2018) describe spheres of sharing, as shown in Figure 1. This captures the idea that there are spaces where sharing is more accepted and spaces where privacy is more the norm. Each cohousing community needs to negotiate for itself which spheres its members are willing to share. Almost all cohousing communities will share outdoor spaces, storage spaces and parking, but fewer share cooking and meals. Nevertheless, many argue that regular shared meals are essential to a successful cohousing development.

Given the novelty of cohousing in the Australian context, it is yet to be seen what an Australian model of cohousing might look like. Given stated preferences for privacy over communality (Productivity Commission, 2008; Crisp *et al.*, 2013), an Australian model of cohousing may incorporate fewer formal shared spaces than European models, and may instead involve informal shared spaces, such as unfenced yards and shared outdoor spaces.

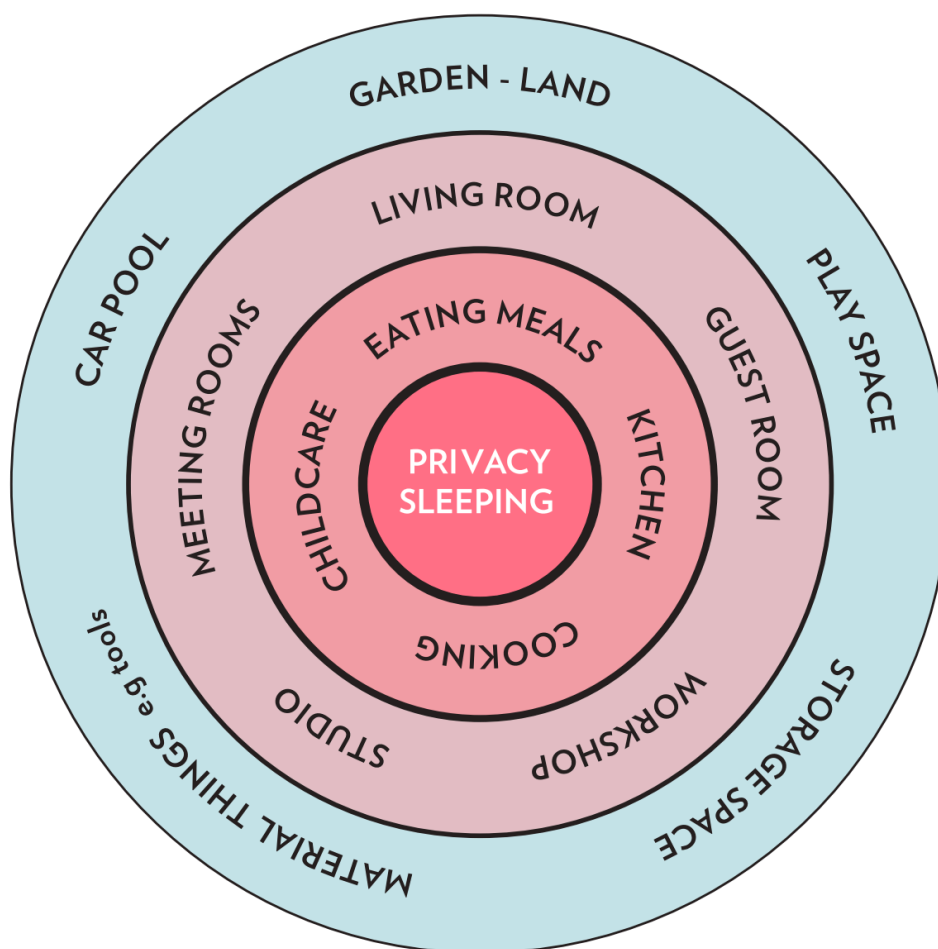


Figure 1: Spheres of sharing. From Ahn et al. (2018).

Smaller-scale cohousing developments might involve 2-3 households designing a purpose-built dwelling or adapting an existing dwelling to suit a small number of households. Such developments usually involve shared spaces and facilities (outdoor areas, laundries, some living spaces) but are distinct from share houses in that each

household has their own self-contained unit (McGee, Wynne and Lehmann, 2017). The amount of shared space will likely vary greatly between each case, with some simply sharing facilities such as laundries while others have communal kitchens and living spaces.

Williams (2005a) emphasises the variety of designs that are included under the cohousing banner. Though cohousing usually has a relatively-high density, she notes that cohousing is built at low, medium and high densities and in a variety of layouts and locations, including rural, peri-urban, suburban and urban areas. The key commonality between cohousing developments is an emphasis on encouraging a ‘collaborative’ lifestyle and greater interdependence between residents, leading to strong and vibrant communities (Williams, 2005a).

What is clear is that cohousing models vary significantly, ranging from small 2-3 household developments to 25-40 households, and with a spectrum of shared spaces, governance and design processes applying across these models. Larger-scale cohousing (four or more households) is the model that appears to be most common around the world.

3.2 Leadership and governance

Apart from its community-focused design principles, the other distinguishing feature of cohousing identified in the literature is its governance model: cohousing communities are generally organised, planned and managed by the residents themselves (Durrett, 2009).

Cohousing neighbourhoods are ‘based on mutual support, self- governance and active participation’ (Brenton, 2013). Residents are involved from the outset, planning not only the physical design of the community but also the governance and management structure and processes (Durrett, 2009). The development process is often overseen by a developer or other facilitator (such as an architect, community housing provider or planner), but involves engagement with the residents about all aspects of the design (Durrett, 2009).

There are, however, varying degrees of resident involvement in the initiation of a project. Williams (2008) distinguishes between cohousing developments based on their leadership model, as shown in Table 1.

Table 1: Development models for cohousing from (Williams, 2008)

Model	Resident-led model	Partnership model	Speculative model
Description of model	Entire resident group involved with the development and design process, as well as community formation	Partnership approach—developers and residents work together at all stages of the process	Developer led. Developer deals with design, development and community formation
Community visioning	All residents involved	All residents involved	Developer
Recruitment	All residents involved	All residents involved with professional help	Developer
Legal structures and financing	Resident led with professional help	Developer led	Developer
Design Process	Resident led with professional help	Developer led with resident input	Developer
Community development	Resident led with professional help prior to living in community and throughout life of community	Resident led with professional help prior to living in community and throughout life of community	Resident led once living in community

Source: adapted from Davis, 2001 (unpublished).

Resident-led cohousing, in which a group of households come together to plan, finance and develop their cohousing community without assistance from a developer, is often considered the original, or standard model of cohousing development (Williams, 2005b). Resident-led cohousing can take significantly longer than other development models, due to inexperience with the planning, finance and development required to establish such a development (Scanlon and Arrigoitia, 2015) as well as the time associated with deliberative design, in which residents design their own community (Durrett, 2009).

Elderspirit, a cohousing development for older people in the US, is an example of a resident-led cohousing development. The proponents established the Trailview Development Corporation to own the land, borrow finances and construct buildings. They received research and public grant funding, as well as some private funding—though not, it appears, from conventional finance sources such as banks or credit unions. This reliance on non-conventional funding sources could prove particularly challenging in terms of the time and cost associated with raising capital. Now constructed, Elderspirit is managed entirely through the Residents' Association, which makes decisions by consensus.

In resident-led models, cohousing members themselves finance land acquisition and construction costs out of their own pockets and/or with a mortgage (Scanlon and Arrigoitia, 2015). Securing finance for an untested model such as cohousing in Australia is likely to prove challenging given the conservative nature of lending institutions. Resident-led models also have inherent risks related to inexperience with the development process. A modified version of a resident-led model involves a core-group of the future households leading the development process, sometimes in conjunction with a developer, with the remaining householders joining at a later stage of the process (Williams, 2005b).

Establishing a cohousing development is a complex venture, requiring expert input regarding design, finance, planning, title and governance. For this reason, many cohousing developments in the US and northern Europe make use of developers, architects or housing associations to help deliver cohousing developments.

Housing associations, (non-profit suppliers of social housing), commonly participate in cohousing development and management in northern Europe (Scanlon and Arrigoitia, 2015). Housing associations make ideal partners for cohousing developments—they are experienced builders, have financial resources, they can facilitate the inclusion of social and low-income rental households but, due to them being non-profit, will generally add fewer costs to the development than for-profit developers (Scanlon and Arrigoitia, 2015).

Private developers, too, can act as partners in the cohousing development process. In developer-led processes, a developer works with the group of proponents (or, in purely speculative models, without a group) and builds dwellings to their specification, seeks finance and undertakes the land acquisition and construction. On completion, the developer then sells the units to group members (Scanlon and Arrigoitia, 2015). Depending on the ongoing management model, the developer might either completely exit the development, or may stay on to manage the ongoing administration of the development or, for example, act as a landlord for tenanted housing units.

Two types of developer-led cohousing models are the partnership model in which the developer works together with the resident group, and the speculative model where the developer takes on all decisions and responsibilities for the whole project and finds residents using traditional pre-sale marketing avenues. The partnership model appears to be more promising and is the approach taken by Nightingale Housing in Australia. There are questions about whether speculative development fosters the social

cohesiveness and more collaborative lifestyle that are a major attraction of cohousing (Williams, 2008). Whilst resident involvement in design increases the development timeline, and hence costs, in a partnership model this can be balanced against the reduced risk that having a pre-committed buying group provides.

Working with developers has the advantage of access to experience with the planning and construction process, as well as considerable financial resources. However, developers will be aiming to make a profit, and therefore the cost of cohousing delivered through a developer may be higher than through a housing association. There is a lack of research regarding comparative costs associated with resident-led and developer-led cohousing—it is possible that the profit-related costs associated with developer-led models may be similar to the costs associated with an inexperienced group muddling through the process of establishing a cohousing development.

Models such as the Nightingale model involve a cap on developer profits. Such a cap means that community members can work with built environment professionals without concern that the costs of development will be inflated due to high profit margins.

Once a cohousing project is built, residents are typically involved in the management of the community. Usually, this involves a non-hierarchical structure (Glass, 2009) and consensus decision making (Durrett, 2009). Many communities use principles of deliberative democracy or similar to arrive at decisions without adversarial-style voting and debate.

Cohousing generally involves no 'staff supervision' (Glass, 2009), making it distinct from body corporates overseen by strata management consultants or retirement villages run by developers and aged care providers. There appears to be a consensus in the literature that 'being community-led is an essential feature of the cohousing family' (Tummers, 2015).

However, as described above, Australian models may differ from European models, given cultural differences and the novelty of the model. Cohousing in Australia may involve a reduced degree of resident involvement—for example, residents may be involved in some relevant decision making, but may prefer to have a cohousing community that is managed by an aged care provider, community housing provider, a retirement villager operator or a developer.

3.3 Title

Cohousing developments are often characterised by a mix of owner-occupation and rental units. Owner-occupied units are generally necessary for providing the capital required to fund the development, but rental units provide an opportunity for including those who may not have assets or significant income. In the Australian context, rental units targeted to low-income households may also have the opportunity to receive income from the Commonwealth Rental Assistance scheme (providing they are managed by a community housing provider).

At Parkside, a cohousing development in the US, 13 of the 29 units are privately owned, with the remainder subsidised for low-income tenants. Pinakarri Community, in Fremantle, Western Australia, is one of the limited number of Australian cohousing developments. It also has a mix of public and privately-owned dwellings, with owner-occupied and rental tenures.

Ownership title will be important for a number of reasons related to finance, management and other important considerations such as transfer of ownership and inheritance implications. Some form of community or strata title is likely to be

applicable, such as Torrens title (outright ownership) of housing units combined with Community Title for shared spaces.

3.4 Demographics

One of the most important questions for cohousing focused on older people is whether the development will be only for older people or will have an intergenerational mix of residents.

Intergenerational cohousing is likely to be a relatively niche market—some people will really like living amongst children, young people and families, while others will prefer to live with those their own age.

There are examples of developments in Europe where cohousing communities are co-located with communities with different demographic make-ups, so for example a seniors-only cohousing complex is located next-door to a predominantly young family cohousing. This design aims to allow people to live with others of the same demographic, whilst still allowing for some of the benefits of intergenerational living such as childcare or caring.

3.5 How is cohousing different from other models?

Cohousing may, at first glance, appear to be similar to other existing forms of communal living. A few important features distinguish it from share housing, nursing homes and communes—and also give rise to its particular benefits.

Cohousing differs greatly from the usual speculative mode of **apartment** or neighbourhood design in that it prioritises communality and interaction over privacy (Tummers, 2015). Whereas condominiums, gated communities and other speculative developments tend to focus on privacy and security, cohousing places an explicit emphasis on connectedness, with designs ensuring that 'neighbourliness' is encouraged.

Cohousing is distinct from **retirement villages and homes and nursing homes** because it is designed and managed by the residents themselves. Cohousing communities do not involve paid staff or ongoing coordination by a development or management organisation—rather, the community members organise and run these communities from the outset, including determining the design of such communities. Retirement villages that do involve residents in design and governance start to overlap with cohousing.

Cohousing is also distinct from **share housing**, in that the homes are generally designed with a combination of private spaces and communal spaces, whereas share houses are usually designed for a single household (with a single kitchen and living space) but inhabited by several individuals or couples. It also differs from share housing in that, while there are shared spaces and facilities, each household has its own self-contained unit.

'**Granny flats**' that add a dwelling for older people alongside a family home can be seen as a form of small-scale cohousing, particularly when there is careful design to enable access to both shared and private facilities for the different households.

Communes, which became popular in the 1960s and 1970s, share many similarities with cohousing in that they are focused on communal living and the sharing of resources. Cohousing communities are different from communes, however, due to them not having a shared economy (Glass, 2009)—households have separate incomes

and there is no pooling of financial resources beyond any quarterly fees paid by residents to run common spaces.

Intentional communities also share many features with cohousing, such as shared spaces and self-governance. The literature tends to distinguish such communities from cohousing, however, due to intentional communities having shared ideologies to which residents must subscribe. Beyond a shared commitment to community living, cohousing communities tend not to have explicitly articulated shared ideologies (Williams, 2005a). However, many cohousing communities may have implicit/informal-shared ideologies or may be socially homogenous.

3.6 Why cohousing for older people?

Cohousing developments are most popular in northern Europe and, more recently, in the US. These are a mix of general communities, intergenerational communities and elder communities. Around 250 senior¹ cohousing communities have been established in Denmark (Pedersen, 2015).

Cohousing has offered an alternative to mainstream housing options for older people in northern Europe for several decades and, more recently, communities have also emerged in the UK and the US.

A recent review of collaborative housing research in Europe over the last 30 years identified older people as the socio-demographic group that had received the most research attention. Like Australia, Europe has an ageing population, and has also seen the expansion of the co-housing model as one response to this demographic trend (Lang et al 2018).

HAPPI – Housing our Ageing Population: Panel for Innovation initiative was commissioned by the UK government in 2009 to ‘advance existing good practice and promote new ideas’ to meet the needs and aspirations of the older people of the future. It identified European models of cohousing and mutual housing as impressive models of commissioning and managing new housing, and recommended these models should be supported in the UK. Cohousing potentially provides particular benefits for elderly people (Brenton, 2013; Durrett, 2009; Abraham & Grange, 2006; Pedersen, 2015; Lang et al, 2018), including:

- Providing informal care through community contact, often reducing care costs, and delaying the need for higher-level care
- Pooled resources to share and offset the costs of care provision
- Allowing older people to age in place, providing dwellings and shared spaces that are designed for elderly residents
- Allowing residents to contribute skills to their community
- Increasing social contact by fostering a vital community that is truly connected, reducing the social isolation often experienced by older people
- Providing an opportunity for older people to downsize to a dwelling that is suitable for their needs, without forcing them to move to a retirement village or nursing home
- Giving opportunities for learning and skill exchange through shared activities and initiatives

¹ In this study, 84% of surveyed residents were aged 60 or over when they had moved into the cohousing development.

- Participating in their community in ways that keep older people active and engaged, including the ability to manage decisions about their neighbourhood
- Reducing of single person dwellings, reducing living costs, demand on housing supply and the physical and environmental footprint of housing
- Providing intergenerational connections and skill sharing through intergenerational living (depending on the model)

Some researchers have argued that cohousing can also produce negative outcomes. Chiodelli & Baglione (2013) argued that while some groups can be characterised by pro-environmental and social behaviours, others could be described more negatively as socially, ethnically and ideologically homogenous communities, segregated physically and socially from their neighbours, as a gated community by another name. Ruiu (2014, p. 329) argues that there are more differences than similarities between cohousing and gated communities, across four categories: sense of safety; degree of closure to the outside; sense of community; and motivations and aims. Ruiu (2014) cautions that the negative traits may be more likely to arise with the greater uptake of speculative cohousing, which reduces the resident involvement in the key elements of community formation (and community building) noted above.

Given the demographic challenges that are facing Australia, including increasing numbers of single, older people in need of some level of care (as discussed in Section 2), cohousing presents a potentially-attractive alternative for 'living together on one's own' (Bamford and Lennon, 2008). Brenton argues that given that baby boomers have considerable wealth—and are becoming more discerning about their housing choices than previous generations—but also high rates of separation and divorce (Brenton, 2008), cohousing offers a 'realistic alternative to a tradition of paternalism and benign neglect in relation to the old and isolated' (Brenton, 2013).

Cohousing however, is not yet common in Australia. While there are a number of cohousing developments, they remain niche and house very few Australians. Largely, Australians remain unfamiliar with the concept and what it might offer for them. Those older people who have been consulted about cohousing identify the following as key outcomes desired for their housing:

- Ageing in place – having flexibility and choices in the housing and not having to move again.
- Security – feeling safe with a place to call home and security of tenure
- Mutual support – belonging to a community of people with shared values and experiences who are prepared to mutually support each other including under some circumstances, shared housing.
- Independence – having accessible housing and being able to physically, financially and emotionally support themselves, with support when required, for as long as possible
- Community participation – well-located housing and access to appropriate and affordable mobility options that enable people to be part of a civil society where they are economically and socially engaged in the community
- Well-being – a sense of being at peace and maximising good health including physically, emotionally and spiritually (Sydney Women's Homeless Alliance, 2017).

3.7 Summary: Cohousing Characteristics, Options and Principles

Table 2 summarises cohousing characteristics, lists options to consider for each characteristic and connects these with cohousing principles. It is apparent that there are many different ways in which cohousing can be configured, spatially and socially, although some configurations are more consistent with established cohousing principles than others.

Table 2: Cohousing options and principles.

Characteristic	Options	Principle
Leadership	Private developer Government developer Architect / designer All future residents Core group of future residents Facilitator / consultant	Traditionally, cohousing has been resident-led but models are emerging where there is participation by future residents in the design but leadership by another party
Built form	Detached / semi-detached (Class 1) Multi-unit low rise (up to 3 storeys) Multi-unit 4+ storeys	Cohousing should make more efficient use of land than a conventional development, which still leaves multiple built forms open. Traditionally, cohousing uses social contact design (Williams 2005a) in planning the development to encourage community interaction, placing an emphasis on communality rather than privacy (Jarvis 2015).
Scale	Small (up to 4 households) Medium (5-20 households) Large (20+ households)	Cohousing should make more efficient use of land than a conventional development, i.e. more households in a given area. Medium-scale cohousing is often seen as the optimal size for building community.
Building strategy	New build Conversion or retrofit of existing building(s)	Retrofit is preferred for sustainability reasons but is not essential

Characteristic	Options	Principle
Financing	Conventional Mixed mode – cohousing mixed with conventional housing to reach bank hurdle rates Land trust Multi-party loans	No preference
Title / ownership	Cooperative tenancy Cooperative ownership Strata title Company title Membership Long-term lease	No strong preference, although cooperative / shared ownership models are arguably more consistent with cohousing principles
Degree of sharing	Low (e.g. just garden spaces) to high (e.g. shared kitchen / dining with no private kitchen / dining)	Traditionally, the ability to share meals as a community is seen as important for effective cohousing
Demographics	Older people only Intergenerational	No preference
Governance	Resident governance Owner governance Facilitator governance	Traditionally, cohousing is governed by the residents and all actively participate in the community.

4 Cohousing models for older people

The list displayed in the previous Table 2 shows that there are many different combinations of characteristics that are possible in cohousing. While this diversity is valuable, there is also benefit in being able to discuss a small number of distinct cohousing models to help potential residents to understand the concept. Based on our previous research, we defined four cohousing models as the focus for the Kick-starting Cohousing project:

1. Small-scale cohousing
2. Deliberative development
3. Cooperative rental
4. Incorporating cohousing principles into existing retirement living models.

Table 3 summarises the characteristics of these four cohousing models. There is a lot of variability in the models and all of them can be more or less consistent with cohousing principles, depending on intention and design. The table focuses on what is typical for current projects. The four models are explored in more detail below.

Table 3: Characteristics of four cohousing models for older people.

Characteristic	Small-scale	Deliberative	Cooperative	Retirement living
Leadership	Future residents	Architect / designer	Private or government developer	Private developer
Built form	Detached, semi-detached or multi-unit low rise	Varies but often multi-unit 4+ storeys	Varies but often multi-unit	Varies but more frequently detached dwellings
Scale	Small	Typically, medium to large	Medium	Typically, large
Building strategy	Varies, but retrofit to add dwellings is common and consolidation of adjacent properties is possible	Varies but new build is common	Varies	Varies, but new build is common

Characteristic	Small-scale	Deliberative	Cooperative	Retirement living
Financing	Varies but often conventional	Varies, but mixed-mode is common	Institutional support	Conventional
Title / ownership	Varies – can be a primary owner that rents out dwellings, or shared title (community or company title)	Strata	Cooperative tenancy	Varies – lease hold or equity
Degree of sharing	Low to high	Depends on resident desires, but is often low at present –just outdoor spaces, laundries	Often low due to constraints of building but can be higher in suitable buildings or new build	Low to medium depending on design
Demographics	Varies	Varies but Australian examples have been intergenerational	Varies	Older people only
Governance	Resident governance	Strata management	Cooperative governance	Owner governance
Australian examples	Ecoburbia (WA) The Sheddars (NSW)	The Commons (Vic) Nightingale (Vic) Baugruppen at WGV (WA)	Murundaka (Vic) Pinakarri (WA) Cohousing Cooperative (Tas)	IRT Kanahooka (NSW)

4.1 Small-scale cohousing

4.1.1 Description

In the US and northern European models, cohousing most often refers to larger-scale developments involving four or more households. However, an alternative and emerging model that may be suitable for housing an ageing population is small-scale cohousing.

Small-scale cohousing is used to refer to developments consisting of two to four dwellings within a similar physical footprint to that of a typical, albeit large, single-family house (McGee, Wynne and Lehmann, 2017), or a couple of adjacent urban blocks (McGee and Benn, 2015). Small-scale cohousing can be new-build, but will often involve the adaptation and retrofitting of existing dwellings to accommodate a number of smaller dwellings. This could involve adapting one or two dwellings to incorporate several private and shared spaces for multiple households, or adding additional dwellings to a block. Unlike replacing a house with an apartment block, some spaces other than stairwells are shared, reducing the overall physical and environmental footprint per household (McGee, Wynne and Lehmann, 2017). A single block could be redeveloped with smaller dwellings (Day, 2011); adjoining properties could be purchased and adapted (McGee and Benn, 2015), a large house already owned by one of the residents could be retrofitted (e.g. Ecoburbia²); a group of friends could get together like the Shedders³ and purchase a property to build a new cohousing development; or a small, often mobile, dwelling known as a “tiny home” can be housed on an existing property (e.g. the movable units provided as public housing in Victoria⁴).

In this small-scale model, households are likely to come together through their own social networks and instigate the development themselves, rather than through a developer, designer or facilitator.

4.1.2 What problem does this model address?

Cohousing at this scale may be a particularly relevant model for aged housing, given that older people generally have a strong desire to live independently in the community and retain their personal autonomy. However, they often own homes larger than their needs or have their entire wealth locked in their housing asset. About 75% of those aged over 75 live in detached housing, with housing capacity statistics indicating there is substantial spare capacity, with over 60% of those aged over 65 living in housing with two or more spare bedrooms (Productivity Commission, 2015).

Voluntary downsizing is not common amongst older Australians, with only 10% choosing to move to smaller dwellings such as single storey units or apartments in retirement villages or on the private market (Productivity Commission, 2015). Therefore, cohousing could help improve the efficiency of residential occupation by accommodating more than one household on a single site, and could help free up funds for older home owners by allowing them to receive income on their housing estate without requiring them to sell their home. Cohousing could support older people to pool the cost of in-home care with peers, or offset some of it through intergenerational living.

4.1.3 Planning and approvals

Case studies, both from a previous study (Day, 2011; McGee and Wynne, 2015), indicate that small-scale cohousing on a single site could be possible within current *building envelope* planning controls for a range of typical Sydney sites. Across inner and middle ring suburban sites (at low to medium density), cohousing designs for two or three households could in many cases be accommodated within the floor space ratio (FSR), height and landscape area controls permissible for a single-family house (McGee and Wynne, 2015).

² <http://ecoburbia.com.au/>

³ <https://shedders.wordpress.com/tag/co-housing/page/4/>

⁴ <http://www.housing.vic.gov.au/movable-units>

Working within or close to existing controls is likely to reduce compliance issues and also work to prevent 'oversized' cohousing that fails to deliver the desired sustainability and space-efficiency outcomes

A study that explored adapting suburban sites for apartment development found that the key barriers related to inflexible controls for setbacks, building envelope and overlooking (Murray *et al.*, 2011). Thus, even if the building envelope fits with planning controls about size and bulk, there may be other challenges relating to planning controls. Some level of flexibility in the controls is needed, for example, encouraging local governments to adopt a focus on performance-based rather than prescriptive measures.

The key barrier illustrated by the case studies (Day, 2011; McGee and Wynne, 2015) was that dual occupancy is only allowed in some situations, and is often constrained by the requirements of the Affordable Rental Housing SEPP in NSW. The SEPP only allows secondary dwellings on sites of 450m² or more, and the secondary dwelling must be a maximum of 60m². Triple occupancy is rarely allowed in low-density areas. Thus, small-scale cohousing may only be suitable where block sizes are large enough to comply with the SEPP requirements, or where a local government is willing to negotiate for improved outcomes relating to sustainability.

Subdivision is generally not permitted on small sites. However, subdivision can lead to inflation of land prices (due to an uplift in development potential) so may lead to unintended consequences anyhow. Small-scale cohousing is likely feasible without subdivision, through the use of company title, which retains the property on a single title but splits ownership between parties to the contract.

Integrating dwellings across sites may be possible but could be complicated. Examples exist of cohousing dwellings that integrate adjacent dwellings using shared spaces (McGee and Benn, 2015), however it remains unclear whether this could be easily replicated in other jurisdictions, as this may be dependent on local rules relating to the amalgamation of lots.

4.1.4 Development process

In this small-scale model, households are likely to come together through their own social networks and instigate the development themselves, rather than through a developer, designer or facilitator. In the case of a retrofit of an existing block and house, the owner of the property may be able to finance themselves.

Unlike larger cohousing developments, small-scale cohousing does not require large parcels of land or complex governance structures (McGee, Wynne and Lehmann, 2017)—thus, the cultural and financial barriers to establishment are lower.

Cohousing across multiple adjacent blocks may increase the titling options available, but also imposes challenges in obtaining the adjacent blocks, either due to availability of adjacent blocks on the market at similar times, or affordability of purchasing multiple blocks. For cohousing developments that involve amalgamation of adjacent lots, there may be difficulty in acquiring adjacent lots. These lots would not only need to be affordable and adjacent, but have suitable planning controls to allow the amalgamation of sites.

The implications for National Construction Code requirements will also need to be understood, as building two or more separate dwellings may attract extra requirements (for example, if separate units are built one above the other, this changes the dwelling class and therefore the conditions that apply).

4.1.5 Shared facilities

Generally, some spaces are shared, reducing the overall physical and environmental footprint per household (McGee, Wynne and Lehmann, 2017). This could include garden/yard space, guest/live-in carer room (as is the case with the Balmain house), or potentially larger entertaining spaces depending on the design.

The small-scale nature of the model would lend itself to the sharing of everyday resources (tools, gardening equipment). For older people, there could be potential to share carer services. Given the densification of suburban areas, car-sharing could also be useful.

4.1.6 Tenure and title

One route to converting a single home to multiple homes is via subdivision and strata titling. The downside is that subdivision can inflate property prices, potentially cancelling out or diminishing the desired affordability gains (good for the landowner, but not for housing affordability in general). Inflation of land prices and some perverse development outcomes were seen in NSW when legislation was changed to allow dual occupancy units on separate titles, prompting a move to change the legislation back. Dual occupancy units are now on a single title and one must be owner-occupied.

Subdivision is also unlikely to be allowed under planning legislation, with the exception of large sites and thus strata title or Torrens title are likely to be impossible to implement in small-scale cohousing.

Keeping the homes on a single title but with the opportunity for shared ownership (e.g. company title) could be more in keeping with the affordability and cooperative goals of cohousing, and could avoid any inflationary effects caused by subdivision (McGee, Wynne and Lehmann, 2017)

With company title, a development remains on a single title and owners purchase shares, which provides them with exclusive ownership of a unit and shared ownership of common property. One of company title's perceived flaws, which can be geared so approval from all owners is required to sell or lease an apartment, could actually be appropriate in this context. Creating small-scale cohousing on a single title will be generally much simpler from a planning perspective (no subdivision required), particularly if the development fits within existing floor space and site coverage controls.

Creating small-scale cohousing by adapting adjacent blocks would face similar issues to those already discussed if the number of dwellings was larger than the number of titles available. Developing the cohousing across multiple blocks with multiple titles would increase the flexibility in ownership options, whilst also potentially increasing the complexity.

With company title, the loan to valuation ratio that banks provide can often be lower than for strata title, however this has been overcome in past cases by drafting the company title memorandum of association to mirror the strata title act.

The tax implications also need further exploration. Downsizers wanting to develop their own home into small-scale cohousing and sell off portions to friends or children will need to be aware of the impact of the capital gain on pension eligibility and other personal finance matters. Selling a portion of their home would free up cash to cover the cost of living, however, this income would be counted in the pension means test, whereas it would be excluded if still tied up in the primary residence. Whether this 'stacks up' compared to selling up and buying a smaller property needs to be further explored, in terms of the transaction costs of converting the property to cohousing,

selling off portions, and potentially later selling their own portion. Retaining full ownership and renting out portions may be an alternative, however this is also likely to have financial implications for pensioners.

Two significant reasons discouraging older people from downsizing were the cost of stamp duty (33% of respondents; main factor for 6%) and the Aged Pension asset test (20% of all seniors and 30% of aged pensioners) (Adair et. al, 2014:v, 17 cited by (O'Brien, 2015)).

4.1.7 An example

One Australian example of this model is the two single-storey workers cottages in Balmain adapted for sharing between UTS Professor Suzanne Benn and her adult son, architect Andrew Benn, along with his young family.

Winner of a NSW Architecture Award in 2014, the cottages have been renovated as a flexible family complex, designed to enable interaction in some shared areas while maintaining the houses as individual units. Incorporated into the design is a self-contained unit that can be used by other members of the family or perhaps by a “carer” in years to come (McGee and Benn, 2015).



Figure 2: Permeable dividing garden wall, and shared self-contained unit upstairs in the intergenerational home in Balmain (Photo by Katherine Lu⁵)

To realise their vision, the extended Benn family pooled their finances through a family company; as well as their skills in the design and architecture field. They negotiated their family complex; renovating two adjoining rundown single-storey workers' terraces and adding an apartment. Three families could live there. Suzanne, a professor of

⁵ <https://theconversation.com/how-co-housing-could-make-homes-cheaper-and-greener-39235>

sustainability at UTS's School of Business, sold her larger terrace where the family grew up and moved with her partner into one of the smaller terraces (Ryan, 2014).

4.2 Deliberative development

4.2.1 Description

Deliberative development is when a group of prospective owner-occupiers become the proponents of a multi-unit development in place of the developer (Sharam, Bryant and Alves, 2015c). There are a number of ways this might occur, ranging from groups of friends coming together to develop, to strangers being brought together by an architect or developer who is facilitating a deliberative development. This model has proven popular in Europe and now delivers a considerable proportion of apartments in cities in Germany (Sharam, Bryant and Alves, 2015a).

Deliberative developments can be wholly resident-led, but are more commonly managed by a professional such as an architect, consulting project manager or developer, with the future residents having far greater input into the final design, as is the case with the Nightingale model (Perinotto, 2015). Deliberative development provides an alternative to speculative development, in which developers build using a lowest-common denominator approach to design, resulting in 'cookie-cutter' developments—thousands of bland and un-customised apartments that are not designed to suit the needs of the households who will inhabit them. Deliberative development designs usually establish a basic design approach but aim to allow a level of individualisation.

Deliberative development creates a shift from the speculative drivers of maximising yield and sale price to emphasise quality, sustainability or other factors deemed by the future residents as being important (McGee, Wynne and Lehmann, 2017). This can occur through avoiding the cost of the presale campaign required to finance speculative development, and removing the cost of providing a profit margin to a developer (Sharam, Bryant and Alves, 2015b). Deliberative developments in Germany, or *Baugruppen*, have demonstrated better housing products and consistent savings, delivering apartments at around 75% of market cost over a number of years (Lloyd, Peel and Janssen-Jansen, 2015; Sharam, Bryant and Alves, 2015b)—although there is mixed evidence from France and the Netherlands (Sharam, Bryant and Alves, 2015b). One publicly evaluated Australian example of deliberative development found cost savings similar to the German experience (Dolin et al 1992, cited by Sharam et al., 2015), and more recent investigations into the viability of the model in Australia suggest that replacing the existing speculative development model with deliberative development can enhance affordability (Sharam, Bryant and Alves, 2015b).

Deliberative development, though different to most cohousing models in that it does not necessarily have any emphasis on communal living, may provide many principles that could prove useful in developing cohousing for older people in Australia—and, more generally, all housing for older people. Deliberative development offers a model by which housing developments can meet the needs of future households, emphasising features and design principles that are important to residents, rather than focusing on cost minimisation and resale potential—as is usually the case with speculative development.

4.2.2 What problem does this model address?

Although this model does not address housing affordability for society's most vulnerable groups, it does present a more affordable housing option for those who may

be looking to downsize. Interviews have suggested that members of deliberative development processes are eager to find ways to minimise costs and improve affordability. Finding ways to make housing both affordable and liveable appears to be a key priority amongst those who are interested in deliberative development. Deliberative development has been able to achieve 30% improvement on affordability (\$/m²) on market rates for comparable housing, making it a more affordable option for older people who might be interested in downsizing. This improvement in affordability is achieved through both a cap on the developer's profits and through shared spaces such as laundries and reductions in other facilities provided, including parking spaces.

This also responds to demand for more responsive, liveable designs. Current speculative development relies on a 'lowest common denominator approach', whereas deliberative development has the potential to respond to the demands of future residents, rather than merely assuming what their demands will be. In this way, this model has the potential to deliver housing based on resident preferences, rather than the financial and risk-driven speculative property industry.

Even for older people with assets, realising an affordability opportunity when downsizing will likely be important—many own assets that may be below median house price, and may not be able to sell their house to purchase a market-rate apartment in a well-serviced area. Thus, providing affordable apartments for those who are downsizing from their homes as owner occupiers may help respond to a challenge, which at present may be a barrier for older people to downsize.

4.2.3 Development process, planning and approvals

The most common version of this model is similar to the partnership development model of cohousing outlined by Williams (2008). In this approach, the developers and the future residents work in partnership at all stages of the development process. However, the design or development professional takes the lead in the development aspects of the process including legal structure and financing, coordinating the construction team, and obtaining planning permission. The developer, with resident input, also leads the key steps of finding a suitable location and designing the development. The resident group focuses on other aspects such as community visioning (which influences the input into decisions about location and design), recruitment of other residents and community capacity building.

Including future residents in the design process is a means by which affordability opportunities (including life cycle affordability) are realised. By working with residents to select materials that may be non-standard but which will yield improvements in operation and maintenance costs, residents and designers can achieve significant improvement on lifetime costs of a building.

Terminating cooperatives could present an opportunity for individuals to pool resources to develop deliberative development cohousing. This allows pooling of resources at purchase stage but would then provide long-term stability and certainty regarding the asset, as well as the flexibility of single ownership once transferred to strata title.

Development approval may be easier for deliberative development than for other types of cohousing, as the built form looks very similar to residential apartment buildings—a development type that councils are very familiar with. While there are only a few examples that have been completed in Australia, evidence suggests that planning and approvals are not likely to be a barrier to realising deliberative development in NSW. There may be minor challenges to development controls, such as where residents elect to forgo parking spaces in a local government area which sets a mandatory minimum ratio for parking spaces. Anecdotal evidence however, suggests that these could be addressed through negotiation with local government.

Further, most local governments are now increasing zoning around transport hubs—this is likely to be ideal for deliberative developments which thus far in Australia have been located close to transport and services in inner-city areas.

In Germany, some governments have been actively supporting deliberative developments by specifying some state-owned land for development in this way, or ensuring brownfield redevelopment precincts have appropriately sized lots for deliberative developments (Sharam, Bryant and Alves, 2015c).

4.2.4 Shared facilities

In existing examples in Australia, decisions regarding what shared spaces should be included have been arrived at through deliberative processes, driven primarily by a desire for reduced costs. These include shared facilities such as laundries, roof space and car share, which has meant reduced wet areas and fewer basement parking spaces, cutting costs compared to similar speculative developments. Affordability can be realised by constructing certain shared spaces. However, a resident group driven by affordability is unlikely to incorporate significant shared facilities such as common rooms and shared kitchens, as these are unlikely to reduce overall costs. Larger shared facilities (those that do not reduce the floor space of each apartment) are unlikely to reduce costs, and will likely add to the costs due to the additional floor space that must be paid for by each purchaser.

4.2.5 Tenure and title

This model works best when the future residents will also be the owners. The deliberative development model allows future residents to have input into design decisions made by the development lead. This works best when the residents making these decisions will reap the benefits of design features and also carry the cost burden. There could be room for some rental within the overall tenant mix, but with the majority being owner-occupied. Deliberative development could work well with a model where some private dwellings are co-owned by all the members of the body corporate, so management is maintained by the residents, and also provides an income stream.

An advantage with regards to deliberative development is that it is well suited to strata title. Strata title is familiar to banks and financiers, meaning that such institutions would see little risk in lending for a deliberative development, reducing the barriers to such developments for proponents.

4.2.6 An example

The R50 Baugruppen project in Berlin is an architect-led, collectively funded housing development. Nineteen households built the building together. Funds were pooled for construction and the purchase of the plot, and participatory planning catalysed a comprehensive vision, from communal space to window fittings.

The group and its architects selected the site from a set offered by the Berlin Senate Department for Urban Development—part of a city government bid to spark development outside the usual mode of initial investment for maximal short-term profit (Bridger, 2015a).

The group assembled included architects, artists, and journalists. They all essentially bought into the project, with everyone purchasing his or her unit in the building on spec before it had even been developed. The bank and project manager structured a package of financing by pooling the individual mortgages for the units of future residents that would fund all the phases of construction. This unusual method of financing was made possible by specialized programs offered by Nürnberg's

UmweltBank, the self-styled “greenest” bank in the economic ecology of Europe’s financial leader (Bridger, 2015b).



Figure 3: R50 is the building on the right of picture⁶.

The designers spent 1 ½ years meeting with fellow buyers every two weeks to arrive at a design that included shared space (Anderton, 2015a). It has six floors with three units on each floor, as well as a shared roof terrace, large communal room in the basement and yard for all the families.

The residents opted to make the ground floor a shared space that includes a double-height community room and laundry facility. A rooftop “summer kitchen” and deck is an outdoor gathering space and wraparound balconies are a shared outdoor space and secondary exterior circulation route between apartments (Bridger, 2015b).



Figure 4: The double height shared space common area on the ground floor⁷

⁶ <http://blogs.kcrw.com/dna/berlins-r50-baugruppe-is-a-model-of-living-affordably-collectively>

⁷ <http://www.metropolismag.com/May-2015/Dont-Call-It-A-Commune/>

The City of Berlin helped make these developments possible. It offered the land to the Baugruppen in a bidding process based not on price but on the quality of their residential concept. Then the city held it for them at a stable price while the group sought partners and raised funds (Anderton, 2015b).

4.3 Cooperative housing

4.3.1 Description

Cooperative housing has been a model for providing affordable housing since the early twentieth century (Schwartz, 2013). It is popular in Northern and continental Europe, with cooperative or mutual housing comprising 18 per cent of housing in Sweden, 15 per cent in Norway, 8 per cent in Austria, 6 per cent in Germany and 4 per cent in Ireland, but only 0.6 per cent in the UK (Bliss, 2009).

The cooperative housing model has natural synergies with cohousing as a financial model, particularly focusing on affordable cohousing developments. The cooperative financial arrangement is designed to empower residents and ensure a level of affordability. Schwartz (2013) discusses three popular financial models:

- Low (or shared) equity housing: a type of resale- restricted, owner occupied housing in which the cooperative defines efficient and fair resale prices of housing in the cooperative when members move on (Bundagen Ecovillage in Northern NSW is an example).
- Community land trusts: a model in which the community owns and controls the land which can then be sold or leased to occupants at a controlled rate, allowing the cooperative a measure of autonomy and continued affordability, and
- Common equity rental cooperative (CERC): Referred to by Schwartz (2013) as not-for-profit, non-equity cooperative housing, this type is focused on providing public or social, rather than private, affordable housing. Residents typically pay income-indexed rent—up to market rates—to the cooperative. This type of cooperative typically prioritises community, lifestyle and shared governance within the cooperative, but relies on government and not-for-profit or private foundation funding in order to provide the set-up and ongoing maintenance costs not covered by the cooperative income and labour of members (Crabtree 2016).

Of the financial models discussed, common equity rental cooperative (CERC) being the form that seems to have the greatest potential to deliver affordability and social diversity benefits in Australia (Crabtree, 2016). In fact, the Murundaka cohousing community in Melbourne is an excellent example (Murundaka Cohousing, 2016). It was developed and is managed by Common Equity Housing, an affordable, cooperative housing provider managing over 2,200 properties in Victoria. CEH delivers two main models of cooperative housing – a common equity rental housing cooperative (CERC) and a community managed cooperative model (CMC)⁸.

4.3.2 What problem does this model address?

Currently, demand for affordable rental housing that is suitable for older people is extremely high, and vacancy rates even in substandard housing are reportedly low due to this high demand.

Older Australians are reluctant to enter public housing due to fears around safety and security. Low-income cooperative rental might provide an alternative for older people

⁸ <http://www.cehl.com.au/co-op-model>

who have low incomes and do not own assets—an alternative that can deliver housing specifically for older people (possibly tailored to particular demographics: women only, or particular ethnic backgrounds) that is safe and secure, without the challenges and stigma (and waiting list) of public housing.

Research summarised by Schwartz (2013) has found that cooperative housing has seen success in providing affordable, manageable housing with the additional benefit of community for those who want or need it. German research by Borgloh and Westerheide (Schwartz, 2013) found ‘the level of mutual support displayed by residents of cooperative housing projects significantly reduces their dependence on costly government health services. In fact, they conclude that the significance of cost-savings afforded by mutual support living arrangements would justify government investment in new housing projects of this type.’

4.3.3 Development process

Murundaka in Melbourne provides a working model of this cohousing type. Common Equity Housing developed it, with eventual tenants drawn from the pool of people eligible for community housing. In the Murundaka development, a core group of the future residents were the driving force behind the adoption of the cohousing design. Future developments could adopt a modified form of deliberative development, giving the first tenants, or a representative group of future tenants, an input into design decisions.

As an alternative, cooperative rental dwellings could be developed as part of a larger cohousing development, with a portion of the dwellings being affordable rental housing. Pinakarri Cohousing in WA is an example, with a mix of private and public housing. The financial security provided by partnership with a housing provider with a large number of existing assets can help with development financing.

4.3.4 Shared facilities

As with the other models, the nature of shared spaces in cooperative rental arrangements will vary from one development to another. They might include shared barbecue areas, entertainment areas, common lounges or kitchens, shared laundries or common gardens.

4.3.5 Tenure and title

Ownership of cooperative rental generally sits with the not-for-profit / community housing provider—unless the cooperative owns the building outright (which is common only in cooperatives that have existed for a longer time). Tenure is generally provided through a rental agreement for eligible older people, similar to existing community housing programs. In cooperative rental there tends to be greater security of tenure than in private market rental, as tenancy agreements are not renewed or reviewed periodically and tenants can generally stay as long as they wish. Cooperative rental could be incorporated into a larger cohousing development by making a portion of the available private units owned by a housing association as rental units.

Low-income tenants of cooperative rental housing are generally eligible for the Commonwealth Rental Allowance, a federal subsidy that assists households in meeting the costs of their housing.

4.3.6 Two examples

Pinakarri Community, WA is a Mixed Tenure Deliberative Development and Cooperative rental cohousing model. It is a unique, award-winning intentional

community and urban co-housing co-operative near Fremantle, Western Australia, committed to a more social, environmental and economically sustainable way of living.

Pinakarri was formed in 1991 by a group of diverse people with a common dream. They were mainly parents (mostly women) looking for a more socially sustainable way to raise our children. After more than 8 years of coming together as a community, involving both enjoyable social times and a lot of hard work, suitable land was finally found and purchased. The building was completed and the founding tenants took up residence in 1999. It is the first co-housing co-op in WA to have **a mix of public and private housing**.



Figure 5: Images from Pinakarri⁹

Pinakarri's twelve houses (and common house) are built on 3,000 m² where formerly four houses stood. Members and friends also live nearby - around 40 people in total. The passive solar design houses of varying sizes are rendered in vibrant earthy colours. Each house is fully self-contained and has a small North-facing private garden. Many have low-profile, semi-permeable fences designed to allow a mixture of separateness and engagement with the surrounding community. One is designed for a severely physically and mentally disabled young woman who would otherwise have faced institutionalisation. She has 24 hour care.

The shared common space has tree-shaded lawns fed by a greywater system on which people relax and children play; an organic vegie garden with some fruit trees on the verge; a community laundry with washing machines (the source of some of the greywater); the Common House and the fire circle. Rainwater is collected in the winter and is used to flush toilets. In the Common House we have a kitchen & dining area, an office, a meeting room, a small guest room, and a laundry.

Tenancy eligibility is based on involvement and completion of the membership process (the community who will meet to talk about this) housing availability and suitability (size), and income. Occasionally, rooms and rentals become available in Pinakarri's shared 'equity' (owner-occupied) houses and nearby houses owned by members.

A second examples of this model is Murundaka Cohousing Community, which was formed in 2011 with 20 households and approximately 35-40 people that are members of the community. They are members of the Common Equity Housing program - an all-rental, social housing program that provides quality, long-term housing to Victorians. Murundaka's twenty properties are members of Earth Co-op (Earth Common Equity Housing Cooperative). Earth Co-op is one of over a hundred housing cooperatives in the CEHL program (<http://www.murundakacohousing.org.au/about>).

⁹ Info: <http://www.pinakarri.org.au/> and <http://www.communities.org.au/projects/pinakarri-community>

4.4 Incorporating cohousing principles into conventional retirement living models

4.4.1 Description

This form of cohousing refers to retirement villages looking to innovate by incorporating cohousing principles into their design and operation. A detailed description of retirement villages was provided in Section 2.2.3. Retirement village design can already reflect cohousing principles to some degree, as they usually include a number of community facilities. However, resident involvement in design and management is generally limited. Retirement villages are generally run by a non-profit or for-profit retirement living provider, who provide a degree of autonomy to residents, while generally providing additional paid help such as cooking, cleaning and in-home care as required (Property Council of Australia, 2014). Retirement living cohousing could take on a number of forms, from retirement living providers acting as development facilitators for forming cohousing groups, to incorporating a greater degree of future resident co-design into new developments, or establishing resident management committees with greater autonomy to manage village activities and decision-making.

4.4.2 What problem does this model address?

This model has the potential to address separate problems related to cohousing and retirement. Firstly, making retirement living appealing to a wider population, and secondly, helping existing cohousing groups successfully deliver a development. A NSW inquiry into retirement living found that while villages are promoted to 'over 55's', the average age of residents is much older, at 80 years (Greiner, 2017). There are mixed perceptions of retirement villages, with some studies identifying issues of physical and social isolation, and other finding positive impacts on health and social relationships (Gardner, Browning and Kendig, 2005). While retirement villages are different to aged-care homes, it appears that many people nearing retirement age still associate the two, and are put off by negative stories from aged-care homes (Ross, 2017). Retirement living cohousing that provides greater input and autonomy over decision-making to residents has the potential to appeal to the younger baby boomer generation of older people, focused on maintaining independence and tailoring and coordinating their own health and care packages (Quine and Carter, 2006; Rogers, 2014).

A second problem that could be addressed by this model is the low and slow conversion rate from groups interested in cohousing into actually living in a cohousing development. Retirement living providers are experienced in creating housing developments for older people, and could leverage that expertise to work with existing groups of people to deliver their cohousing vision.

4.4.3 Planning and approvals

The principal legislation applying to retirement villages in NSW is the *Retirement Villages Act 1999* (the Act) and the *Retirement Villages Regulation 2017* (the Regulation) (Greiner, 2017).

The design of retirement living is regulated by planning instruments, including the State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 (Seniors SEPP), administered by NSW Planning and Environment and Local Councils. The NSW government produced a specific urban design guide for infill development to complement the SEPP (Morrish, Spencer and Hancock, 2004). This lays out a range of design principles that must be considered in design and assessment of any

development that is covered by the Seniors SEPP, and this would include retirement living cohousing.

4.4.4 Development process

Retirement living providers are already experienced in developing new housing projects, and therefore could alter their existing villages, or future designs, to adopt cohousing principles around resident governance or increased shared facilities without changing their development processes. Incorporating input of future residents into the design of retirement-living cohousing would require changes to the current processes, in which future residents have little chance to input into design.

Co-design with future residents may face additional difficulties in the case of retirement living developments. While in a regular development, a holding deposit would be forfeited if the buyer does not purchase the final property, a holding deposit for a future development paid to a retirement village operator must be refunded in full to the prospective resident up until the moment the residency contract starts (effectively when keys are exchanged). This means that a retirement living developer has no security that future residents with whom they are co-designing will actually move in until after the housing is built (*Retirement Villages Act, 1999*).

4.4.5 Shared facilities

Retirement villages already generally provide a number of common facilities for residents, ranging from lounge areas, cinemas, and fitness facilities to gardens. Existing examples of retirement living incorporating more cohousing principles tend to create smaller clusters of units and share facilities at this smaller scale, which creates greater opportunities for day-to-day usage. Shared facilities then include central living areas, oversize kitchen and dining space, outdoor courtyards and gardens, and storage facilities (e.g. garden shed).

The larger scale of many retirement villages creates the opportunity for larger facilities to be shared between residents, as is already the case in retirement villages.

4.4.6 Tenure and title

There are a variety of different contractual arrangements that residents can use when entering into a retirement village. These can vary depending on the village type, and there are generally multiple options when entering into a village. Retirement-living cohousing could continue to function using these existing arrangements.

A retirement village contract provides a resident with a 'right to occupy' premises usually for a long period of time, however purchasing a right to occupy a unit in a retirement village is different to buying a house. There are different types of tenure and contracts available that provide varying levels of services and offer different financial arrangements. Tenure types can include long or short-term leaseholds, buying into a strata, community or company title scheme, and loan/licence arrangements. Many rights and obligations of the resident and operator vary according to the contractual arrangement.

A loan-licence arrangement is a common agreement offered by the not-for-profit sector. It gives the resident the 'licence' to occupy the unit following the payment of an ongoing contribution to the village. Leasehold arrangements (typically a 99 year 'lifetime' lease) are commonly offered by the for-profit sector. Depending on the agreement, a resident may also be entitled to a share of the capital gain (or loss) based on the difference between the price paid by the outgoing and the incoming resident for a particular unit. (Greiner, 2017).

The existing licence to occupy arrangements would appear well suited to retirement-living cohousing, and serve to address potential issues found in other cohousing situations regarding issues of inheritance of a housing asset.

4.4.7 Case studies and examples

Illawarra Retirement Trust (IRT) has been exploring trialling cohousing concepts in its retirement living products, firstly in a Batemans Bay development and now at a new site in Kanahooka. The plan is to replace five traditional 2/3 bedroom retirement units with nine independent one-bedroom units and a common house with communal facilities. The degree of resident autonomy is yet to be determined, and will likely occur in consultation with potential future residents. A cohort of potential future residents will also co-design the features of the common facilities.

Other examples can be seen in the UK (Stevens, 2016). Retirement Security¹⁰ has developed a model whereby within each retirement village the residents own the leases of their homes and they are all shareholders of a management company that manages the scheme, including the community centre and the care and support staff based there.

Evermore Wellbeing¹¹ is another retirement living provider in the UK that emphasises co-creation of spaces and routines by the residents. The designs are generally reminiscent of cohousing, with residents either renting or owning a one-bedroom apartment which has its own living area, kitchenette, separate bedroom and an ensuite, plus a balcony. The apartments are clustered in groups containing between 9 -12 people, and open into a communal space with living area and hearth, open plan kitchen and large dining table to encourage social interaction.

¹⁰ <https://www.retirementsecurity.co.uk/about-us/a-unique-idea/>

¹¹ <http://evermorewellbeing.com/why-we-exist/>

5 Sustainability benefits of cohousing

As was noted in Section 3, most cohousing models take a holistic approach to sustainability, at least attempting to consider the 'triple bottom line' of benefits: environmental (through efficient designing and shared resources), social (through being community-oriented and facilitating social interaction), and economic (through striving to achieve affordability) (Tummers, 2015). The benefits that may arise from a cohousing approach to these aspects are explored below.

5.1 Environmental benefits

Cohousing communities are often discussed as models of living and consuming in a more sustainable manner (especially with reference to having a reduced environmental impact) when compared with similar mainstream communities (Meltzer and Metcalf, 2005; Williams, 2005a, 2008; Lietaert, 2010; Marckmann, Gram-Hanssen and Christensen, 2012a). While the general conception of cohousing does not have an explicit focus on environmental sustainability, there are a significant number of cohousing projects with explicit pro-environmental aims. A review of ecological and carbon footprint studies of ecovillage and cohousing communities found that both types of communities were succeeding in reducing the environmental impacts of residents, across both measures (Daly, 2017). As an example, two separate studies have compared the carbon footprint of residents of the Danish cohousing community Munksøgaard to the Danish average, and found residents of the cohousing community have reduced their carbon footprint by 50-60% (Samuelsson, 2001; Pöyry Energy Consulting, 2009; Daly, 2017).

Several studies have analysed or described the factors that contribute to, or are argued to contribute to, the benefits of cohousing in creating more sustainable consumption patterns (Meltzer, 2005; McCamant and Durrett, 2011; Marckmann, Gram-Hanssen and Christensen, 2012b; Szaraz, 2015; Daly, 2018). These benefits can be summarised as follows:

- Encouragement of the adoption of sustainable technologies (e.g. solar power, heat pumps, composting toilets) – described by Marckmann et al (2012) as the clearest and most important advantage of cohousing. The involvement of future residents in the planning and design provides an opportunity to prioritize reducing ongoing operation costs, and align the design with personal values and preferences. The community scale organisation provides cohousing residents with greater agency than an individual dwelling to explore and adopt more complex technologies.
- Smaller homes through efficient use of shared space - the sharing of communal spaces (from laundries to guest rooms and living spaces) and the encouragement of social connection between residents allows higher density living, and smaller private homes. This reduces the resources required to build, and heat or cool households.
- Encouragement of pro-environmental practices amongst residents – the strong emphasis on resident design and management can create a cultural context which facilitates and encourages residents to act out values of benefit to the wider community (Scheuer, 2002a; Williams, 2005b, 2008; Lietaert, 2010). Daly (Daly, 2018) identified a wide range of pro-environmental practices performed within an

Australian cohousing community, such as bike commuting, clothes swapping and advanced material recycling. Meltzer (2005) found that the peoples' pro-environmental behaviour continues to increase for many years after joining a cohousing community. This is likely to be a stronger factor in communities with explicit pro-environmental goals, which is common, but not a pre-requisite for cohousing developments.

- Greater sharing of goods and resources is encouraged through the close physical proximity of cohousing developments, and strong social capital. This can occur both through the formal sharing of spaces and facilities such as guest rooms, and the informal sharing of private possessions amongst residents (Scheuer, 2002b; Williams, 2005b, 2008; Dawson, 2007; Lietaert, 2010; Sherry and Ormsby, 2016).
- Greater relative sustainability benefits for one and two-person households. Larger households are generally described as more resource efficient than smaller households, so the sharing of spaces and resources amongst cohousing communities described above has particular benefits for smaller households (Williams, 2007).
- Promotion of post-modern worldviews and post-materialist values which emphasise improving quality of life, rather than increasing material prosperity (Mulder, Costanza and Erickson, 2006; Sherry and Ormsby, 2016).

5.2 Social benefits

Social sustainability at a society-level scale has been defined as occurring when:

“the formal and informal processes; systems; structures; and relationships actively support the capacity of current and future generations to create healthy and liveable communities. Socially sustainable communities are equitable, diverse, connected, and democratic, and provide a good quality of life.” (WACOSS 2002, cited by Markle 2015)

On a smaller scale, ‘social capital’ and ‘social support’ are key constructs in developing social sustainability (Markle et al., 2015). Social capital can be understood as relating to the strength of social networks within a group (Helliwell and Putnam, 2004) that consists of ‘values, trust, reciprocity, and civic engagement’ (Putnam, 2001). Social support is understood as a “collection of social, emotional, cognitive, and behavioural processes occurring in personal relationships that provide aid that promotes adaptive coping” (Dalton, Elias and Wandersman, 2001, p. 234)

Cohousing communities emphasise the importance of creating social connections amongst members, with designs that aim to promote social interaction (Williams, 2005a), and values that seek the strengthening of social connection and social capital (Daly, 2018). There is evidence to suggest that the participation of residents in the material and immaterial aspects of the development of community are key for building robust social capital (Ruiu, 2014)

A desire for greater levels of mutual support is recognised as a key factor when people decide to move in to a cohousing community (Glass, 2009; Markle et al., 2015). Research exploring social interactions in cohousing communities suggests that cohousing residents both give and receive significantly more socially supportive behaviours than demographically similar non-cohousing residents. In particular, social support appears to provide particular benefit to primary caregivers of children, and people who were recently retired – particularly males. Resident self-governance provided an opportunity for continued purposeful involvement in community life – important for positive self-worth – after retirement (Markle et al., 2015).

For older people, the informal support in cohousing can provide health benefits and reduce the need for formal care. When cohousing results in a cluster of older people living together, there is the potential to efficiently provide care to a group. In some cases, this density of care needs has allowed cohousing properties to include live-in carers to support their community.

Higher levels of social capital are also known to be associated with happiness or wellbeing (Tokuda, Fujii and Inoguchi, 2010). Although formal studies exploring wellbeing in intentional communities are limited, one study found residents enjoyed a similar quality of life with much reduced levels of consumption by strengthening the community's social capital. This study suggested that the conversion of private goods into public, shared goods had an impact in reducing the amount of built capital required by community members (Mulder, Constanza & Erickson 2006). A larger and more recent survey supported these findings, reporting that members of intentional communities scored highly for reported life satisfaction, among other measures (Grinde et al., 2017). They link these findings to literature that indicates that close-knit communities provide social connectedness and meaning and that these promote wellbeing.

A study of older women found that they were seeking living arrangements that avoided "institutionalised" design and allowed them to belong to a community, offering an antidote to isolation and loneliness (Sydney Women's Homeless Alliance, 2017). Cohousing can meet these needs.

Other studies have identified very high levels of civic engagement among US cohousing residents (Poley & Stephenson 2007, cited by Markle et al, 2015).

5.3 Economic benefits

5.3.1 Upfront

There has been less research regarding the economic benefits of cohousing, and the research that has been done points to both positive and negative outcomes. Williams (2005b) suggests that new build cohousing will generally be more expensive than standard housing, as it includes additional communal facilities, the development process is generally longer (due to the greater resident involvement), and results in more customised housing than cannot be easily replicated in a cookie cutter approach for future developments.

There are ways in which cohousing developments can reduce housing development costs. Research into deliberative developments (or Baugruppen), which has similarities to cohousing in the manner in which future residents are heavily involved in the development of their housing, indicates that savings of up to 25%-30% (in terms of \$/m²) can be achieved on market rates with comparable housing. This research has predominantly been in Germany, however one Australian case has demonstrated similar cost savings (Dolin et al 1992, cited by Sharam, Bryant, & Alves 2015c). Savings can be achieved through avoided marketing costs (removing the need for pre-sales), and through reduced risk (and hence lower profit margin requirement) to the developer by working with a guaranteed group of future residents (Sharam, Bryant and Alves, 2015c). This can be seen as the group paying wholesale prices for their homes (Robb, 2017). Deliberative developments do not necessarily include communal facilities in the same manner as cohousing, so has some potential for different cost savings to cohousing.

5.3.2 Ongoing

The other aspect of economic sustainability is the ongoing cost of living in housing. Developments with resident involvement allows for housing to be tailored to the needs of the specific household that will live in them. This provides a clearer incentive for inclusion of design and energy efficiency elements that may increase upfront cost, but deliver ongoing savings through reduced energy consumption, inclusion of sustainable energy technologies, or lower maintenance costs from better build quality (Marckmann and Gram-Hanssen, 2012; Sharam, Bryant and Alves, 2015c; Daly, 2018). Cohousers also highlight an ongoing reduction in living expenses through the ability to share facilities, vehicles and goods within the community (Williams, 2008).

6 Land acquisition

This section considers one of the key challenges to cohousing, particularly in the expensive Sydney housing market – land acquisition.

6.1 Barriers

The key barrier cohousing projects face for land acquisition in Australia are the extremely high land costs, exacerbating the risk associated with any new cohousing development. While this is a much greater factor in urban areas and particularly capital cities, cohousing commonly has an urban focus.

Land for new housing in Australia is sourced through change of use. This is either 'greenfield' development – when rural land is rezoned for residential use or 'brownfield' development - the redevelopment of land in established urban areas; either through intensification of use on existing residential land, or through the rezoning of industrial, commercial or public land (Alves and London, 2012).

The challenge for cohousing development is that it is in competition with mainstream developers for land. Cohousing developments require more land than individual dwellings, which means cohousing developers need to pool resources across multiple households to raise finance to buy the land. As well as posing logistical difficulties, this creates a perception of higher risk. Most banks are more comfortable lending to a single mainstream developer than a coalition of households, any one of which might default. Thus, land acquisition and financing are closely related barriers to cohousing. Financing is considered in more detail in Section 7.

6.2 Responses

6.2.1 Community Land Trusts

Community land trusts (CLT) are organisations created to provide affordable housing by permanently removing land from the conventional property market. Housing is provided separately from the land, either through resale-restricted home ownership, long-term leases or housing cooperatives (Crabtree *et al.*, 2013; Shareable, 2018). CLTs can be considered a type of community housing provider, with a unique focus on community involvement in or ownership of the organisation, and the aim of balancing the rights and needs of the household and the broader community (Crabtree *et al.*, 2013).

The 'classic' model of CLTs was developed in the USA, however the characteristics of CLTs vary from country to country, based on the local legal context. In the classic model, the ownership of the land (the CLT) is separate to the ownership of the dwelling (the householder).

'Dwelling prices are controlled from excessive capital gain or rent levels through affordability formulas set by each CLT and contained in a ground lease that conveys full land usage rights to the home owner. When the owner sells their home, the resale price is limited, delivering modest equity gains to the seller while locking in the benefit of subsidies or donations to the CLTs for the next buyer.'

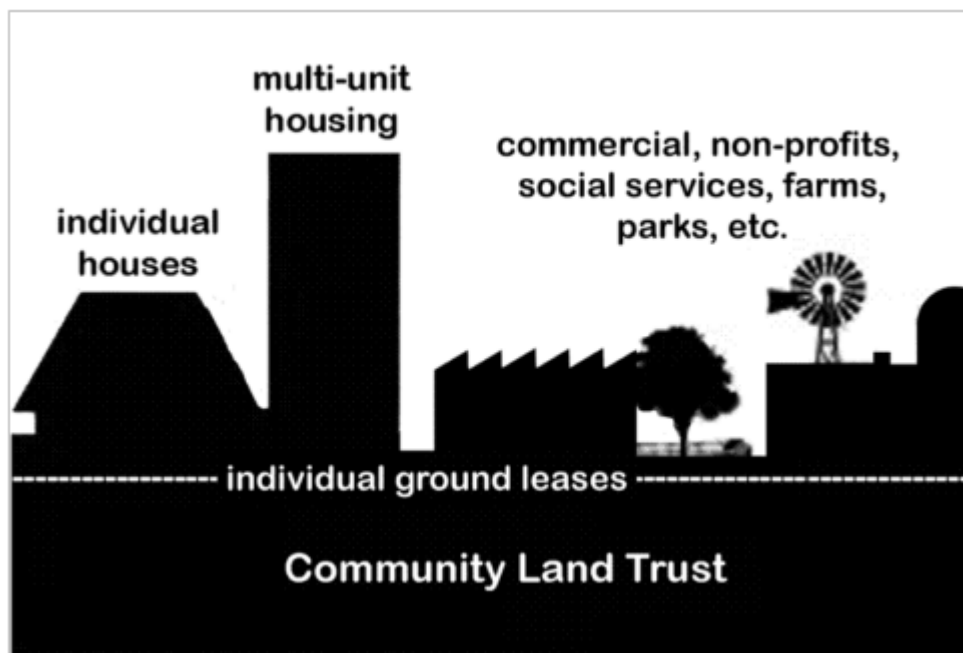


Figure 6: The CLT 'classic' model (Crabtree *et al.*, 2013)

Crabtree *et al* (2013) identified the following core characteristics of the classic US CLT model:

- Non-profit, tax-exempt corporation
- Dual ownership (CLT owns the land, buildings owned by another party e.g. homeowners)
- Leased land (full usage rights to the land are granted to the building owners)
- Perpetual affordability (each CLT holds an option to repurchase any homeownership properties on its land if an owner chooses to sell, at a price determined by a resale formula contained in the ground lease)
- Perpetual responsibility
- Open, place-based membership
- Community control (two-thirds of the CLT board members are resident in the CLT service area)
- Tripartite governance (one-third CLT residents, one-third non-resident locals, one-third from the public at large)
- Expansionist acquisition (CLTs aim to build and expand a mixed portfolio of properties throughout the areas they serve)
- Flexible development.

Research undertaken by Crabtree *et al* (2013) determined that the classic CLT model wasn't possible under current Australian law (this is also the case in the UK), as it is not possible to have separate title to land and to buildings upon that land. This research identified two models for CLTs in the Australian legal context, both of which were found to be possible in NSW (see Figure 7). The first model uses long-term (99+ year) leaseholds, which are exempt from the Residential Tenancy Act (RTA) in NSW, Victoria and Tasmania. This is possible NSW with no changes required to the current

legislative framework. The second is a modified shared equity model based on existing shared equity products, which can be used in any State or Territory in Australia (Crabtree et al., 2013).

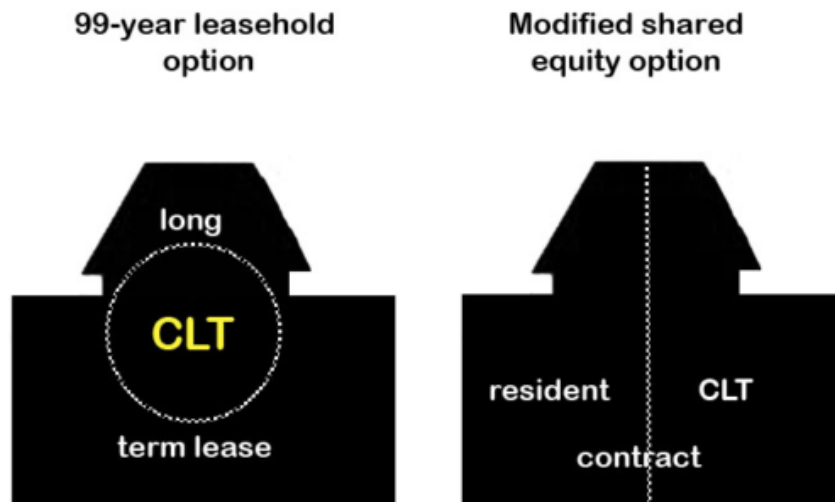


Figure 7: Possible CLT models in NSW (and Australia) (Crabtree et al., 2013)

One well known example of a community land trust (CLT) is the St. Clements Hospital site secured by the London Community Land Trust (LCLT).

How this worked:

- *LCLT allocated the homes to income-qualified applicants from an original pool of 700. The homes will be sold at approximately one-third of their open market value: one-, two-, and three-bedroom homes at £130,000, £182,000, and £235,000 (\$168,000, \$235,000, and \$304,000), respectively.*
- *Resale is restricted to LCLT-approved prospective buyers, with home sellers to recoup their original investment plus a portion of appreciated value as contracted with LCLT (Shareable 2018).*

6.2.2 Involvement of institutional investors

In Europe land acquisition has been dealt with by getting institutional investors involved, or offering higher price but deferred payment for land (Chatterton, 2013). This has particular potential when working with government-owned land on which sale can be restricted for particular purposes (e.g. LILAC in Leeds, UK) or by working with social impact investors with an interest in encouraging development with social, environmental or affordable housing benefits.

6.2.3 Full-Equity Housing Cooperatives / Baugruppen

Deliberative developments which form as a development cooperative made up of future owners involve the future residents in the whole development process, which reduces (or removes) the speculative risk to the developer. This can open up new potential development sites for governments, making medium-density brownfield/infill densification projects more possible. These development types are discussed further in Section 8.3. However, regarding land acquisition, this type of housing development

cooperative can offer 'development options on State or Local Government land scheduled for disposal is a way to promote this type of housing provision, at least until it becomes more established. Early, more closely assisted projects can also be used to demonstrate the benefits of this development model and to work through in practice the legal and financial servicing issues particular to this type of development' (Alves and London, 2012).

Two recent examples have come out of Western Australia. One is a co-housing project that was launched by the council in Fremantle, the other is an innovative collaboration between the WA government's land development agency, LandCorp, and the University of Western Australia. Located in White Gum Valley near Fremantle, that project is targeting a 15 per cent saving for buyers (Robb, 2017).

7 Financing

7.1 Barriers

Research regarding finance for alternative housing typologies has tended to focus on deliberative developments, which is a broader category, but one that can include cohousing. A number of barriers for financing deliberative developments have been identified (Sharam, Bryant and Alves, 2015b). These can be summarised as:

1. Credibility of the project proponent – cohousing groups are generally amateurs with no development experience – therefore finance is difficult
2. Loan security – Financiers typically require collateral for development loads. As well as recourse to project assets, this can also take the form of corporate and/or personal guarantees from project proponents. Financiers note that as deliberative developments proponents would generally be everyday citizens, they may not have enough assets to use as collateral, and that financiers would risk greater adverse publicity and reputational damage if a development fell through and they sought to regain their collateral by evicting a family from their home, rather than repossessing corporate property.
3. Equity – Generally, only 60-75% of financing in a traditional development is from finance, with the rest provided by the developer. This is much larger than the 10-20% deposit required for a residential mortgage. On a \$500,000 apartment, this is the difference between \$50,000 and \$125,000 for a deposit, which is a significant hurdle. Along with loan security, this was identified as the greatest potential barrier.
4. Profitability – Financiers are used to working with speculative developments and have indicated they would likely still want to see that a project could achieve a 20% profit margin if sold on the open market. (In comparison, the Nightingale model caps profit at 15%). In effect, this limits the ability of a development to be tailored to a niche group, as this could mean it doesn't have a broad appeal on the open market. This is an issue that could particularly impact cohousing developments with large amounts of shared spaces.
5. Loan to value ratio – provides a security to financing lenders, but is based on market valuations, which can cause difficulty for cohousing groups that are happy with 'unconventional' locations or designs.
6. Pre-sales – This is often seen as a benefit of deliberative developments, as the pre-sale marketing costs (which can be 10% of overall project cost in a traditional development) are avoided when working with an existing group. However, deposits paid on pre-sales are not available to fund a development project, they are held in trust under Australian Consumer Law.

7.2 Responses

The research by Sharam, Bryant and Alves (2015) also discussed possible responses to these barriers with financiers. Some key responses identified included:

- Engaging professional project managers / architects to work on a fee for service basis with cohousing groups provides credibility and experience that reassures financiers.
- The use of guarantors was suggested as an appropriate response, with either a government or another institution with an asset rich balance sheet such as community housing organisations acting as guarantor. Further details of how this is occurring to some extent – particularly by Common Equity Housing Limited (CEHL) and the Business Council for Cooperatives and Mutuals (BCCM) - and could be further leveraged, are provided in Sharam, Bryant and Alves (2015).
- A cohousing or deliberative development has 'pre-sales' to the group members which can provide greater certainty for financing. This also reduces marketing costs.
- Governments or Community Housing Organisations can partner with cohousing groups to leverage their asset balance sheets to secure finance – e.g. a portion of a cohousing development is owned and managed by Government or Community Housing Organisation, the rest by private cohousing members.

An alternative to traditionally financed deliberative developments would be exploring different financial models incorporating shared equity, the previously discussed community land trusts, or for-lease cooperative rentals with housing associations.

Schwartz (2013) discusses three popular alternative financial models:

- Low (or shared) equity housing: a type of resale- restricted, owner occupied housing in which the cooperative defines efficient and fair resale prices of housing in the cooperative when members move on (Bundagen ecovillage in Northern NSW is an example)
- Community land trusts: a model in which the community owns and controls the land which can then be sold or leased to occupants at a controlled rate, allowing the cooperative a measure of autonomy and continued affordability, and
- Not-for-profit, non-equity cooperative housing: focused on providing public or social, rather than private, affordable housing. This type subscribes to similar priorities of community, lifestyle and shared governance as the first two but relies on government and not-for-profit or private foundation funding in order to provide the set-up and ongoing maintenance costs not covered by the controlled rent charged to residents (Schwartz, 2013).

Rental social housing was the model most commonly followed for seniors cohousing in Denmark, as it made cohousing more economically accessible to the 'common elderly' (Pedersen, 2015).

Another alternative financial model has been pioneered in the UK-based LILAC cohousing project, called a Mutual Home Ownership Society (MHOS). This is based on a model proposed by the New Economics Foundation and Cooperative Development Society in the UK, which aims to create affordable housing by targeting the gap between social housing and market rates. A simplified schematic of a very complex structure is shown in Figure 88. A detailed explanation of this model is provided in Chatterton (2013).

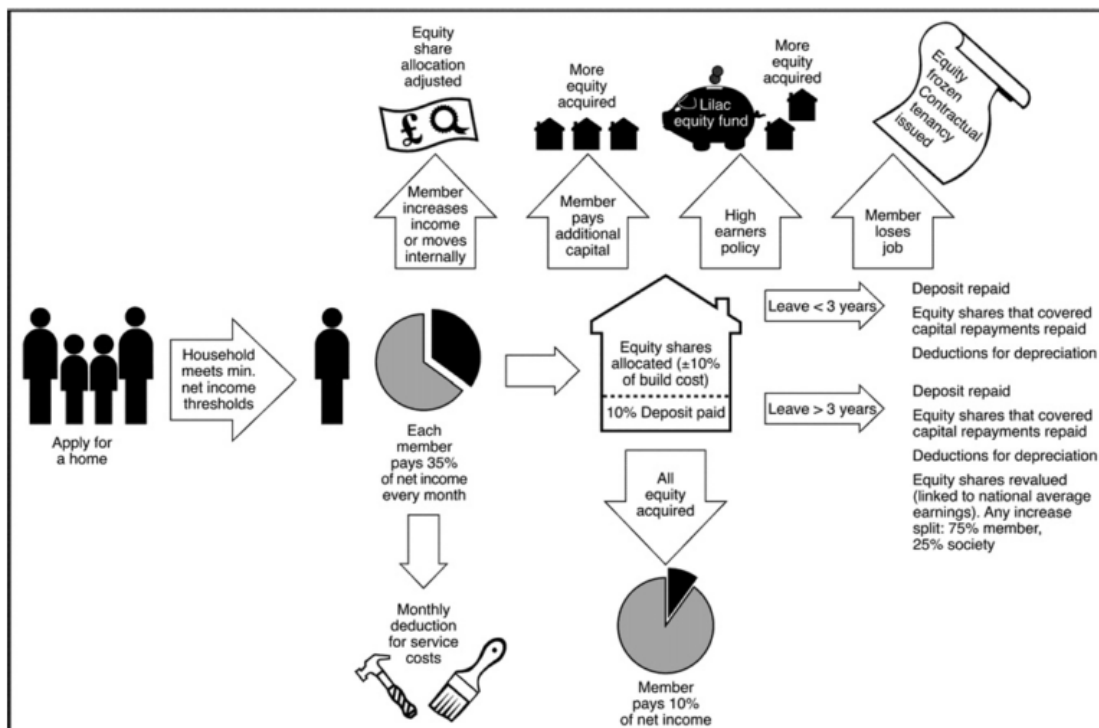


Figure 8: The LILAC Mutual Home Ownership Society structure

8 Legal/Regulatory

8.1 Barriers

The greater sharing of spaces, facilities, ongoing management and potentially ownership within a cohousing community presents a number of issues to manage that are unfamiliar to the usual Australian housing experience. This uncertainty creates unknown risks that can act as barriers to the uptake of cohousing.

Regulatory and planning challenges around cohousing include:

- Providing certainty to potential cohousing groups regarding what is and isn't allowed in a development (i.e. is cohousing permissible and in what form)
- Understanding any implications cohousing would have on the National Construction Code requirements in a building / development. In NSW this may have implications with Apartment Design Guidelines and BASIX compliance, although these are likely to be smaller issues.

Additional areas of uncertainty include:

- The implications of living in and/or investing in different cohousing models for pension eligibility and taxation
- Inheritance arrangements under different cohousing arrangements.

These uncertainties stem from adoption of alternative legal structures to facilitate the sharing aspect of cohousing, beyond familiar Torrens and Strata title arrangements.

8.2 Legal Structure Responses

The adoption of an appropriate legal structure can improve the handling of important communal issues. The Intentional Communities Manual identifies the following as key issues (Clough *et al.*, 2001a):

- allocation of areas for individual and communal living and working; protection of private and communal assets;
- rentals and sales of interests;
- decision-making and discipline on the community and
- the allocation of assets following death of members or dissolution of the community.

There are many types of legal structures which can be used for cohousing communities (or intentional communities in genera "ICI"). The most suitable legal structures are (Clough *et al.*, 2001b):

- **Strata title.** It is possible to structure an IC so that each member has an individual title over their house and curtilage, whilst contributing in cash or kind to the body corporate which is responsible for overall supervision and management of the IC.
- **Community title.** This law enables de facto subdivision of land into separate lots with their own title held amongst common property. The group which initially buys the land can thus retain control over common lands and internal roads than have that control pass to the local council.

- **Company structures.** Companies are perhaps the most suitable structures for aspiring IC's because of their ease of set up, flexibility and limited liability of members for any debts of the company itself. Possible pitfalls include the danger that unless restraints are put in place governing share transfers and the rise of shares and improvements, normal market forces may operate such that the IC has little control over who buys into the community with a consequent loss of communal identity and functions.
- **Co-operative structures.** In ideological terms co-ops are probably the most suitable vehicles for the formation of an IC. They are ideally democratic, self-help organisations which exist to provide services to members rather than profits and thus lend themselves to the purpose of setting up an IC

Community title and strata title are the structures that give members legal title over their private land or space, meaning the owners are able to obtain a mortgage to finance the purchase rather than requiring personal finance. The costs to establish and maintain community title and strata can be significant, so some experts describe company structure as the best option for small groups, and co-operative structure as the best fit for larger groups (Clough *et al.*, 2001b). Other structures which have been used to establish intentional communities with varying degrees of success are:

- **Tenants-in-Common structure.** This structure enables a group of people to buy land but also obtain separate title, entitling them to a nominated proportion of shares. All tic's are entitled to use all of the land and to gain their proportion of any rents over it but they do not have any entitlement to possession of any particular part of the property, though they are empowered to lease parts of it up to 5 years (renewable).

Some other legal structures that could be used to establish a community, but are not recommended, include:

- **Joint tenancy structures.** This structure is similar to Tenancy-in-Common except that on the death of one party their interest passes to the other/s. Generally this structure could not be recommended for aspiring IC's.
- **Trust structures.** Under this structure a person, group or company can hold the legal title over land for the benefit of others (the beneficiaries). Any change in the trustees requires a change to the Certificate of Title over the land held with consequent legal and registration costs. A particular danger of this structure may be that unless the trustee/s are a part of the IC and living on the land they may be or become distant from the ideals and needs of those living there and this could cause legal problems as they have control over the trust property. Recent changes to the law mean that many of the financial advantages of trusts relating to distribution of trust income and tax rates no longer favour trusts over companies and other legal structures.
- **Unit trust structures.** In the past this form of structure has been used to overcome the prohibition against subdivision but the ways in which they have attempted to achieve this are of very dubious legality and may well not survive a challenge in the courts. Under this structure the community's land is held in trust by a company from which shareholders hold leases over their blocks for periods of less than 5 years which are theoretically renewable. They are relatively expensive to set up and were never designed for use by IC's
- **Incorporated association structures.** It is possible for a group to set up an Association to hold land providing it does not engage in profit-making or trading. However it makes no provision for individuals to sell their interests in

the property unless members have some arrangement whereby they lend money to the Association on terms which satisfactorily cover their financial interests. Although such Associations are relatively simple and cheap to set up and grant limited liability for individuals, the capacity to sue and perpetual succession they were not intended for the purposes of IC's and may be disallowed by the state authorities for this purpose.

- **Extended family structures.** Some years ago a case in NSW established that family" did not have to constitute blood relations but can be made up of unrelated individuals provided that they all eat together and demonstrate other aspects of family life. Council planning instruments provide that a family home need not be just one structure but may consist of several detached but physically related buildings as long as the separate buildings do not have separate kitchens or bathrooms. However such structures have not, to my knowledge, ever been tried for rural land sharing communities and confer no legal rights on family members, such that there is no easy way for individual members to recoup any money or "sweat equity" they may have contributed in the event of them wanting to leave.

Other countries will have different structures that may be more appropriate in those particular legal contexts (Henson et al., no date).

8.3 Planning responses

In general, cohousing projects (large and small scale) are allowable under existing codes (McGee & Wynne 2015), and in many cases perceptions of planning barriers may be different from reality. Cohousing developments may be more prone to objections, often over increases in density or reduction in car parking spaces.

Greater clarity / certainty is important in encouraging new developments.

Crabtree (Crabtree, 2016) cites research by Metcalf (1995) showing that governments around Australia have at times been quite supportive towards intentional community developments. The communities that formed in Northern NSW in the 1970's directly led to the creation in NSW of the State Environmental Planning Policy No 15 - Rural Land sharing Communities. This 'enabled the development of multiple occupancies: multiple homes built on single large lots of land, expressly for the purposes of affordable, low-impact living' (Crabtree, 2016).

Banyule City Council, the Melbourne region where Murundaka Cohousing community is located, has recently proposed a new development contribution plan, which is notable for including an exemption for cohousing developments that 'meet a minimum threshold defined by the Responsible Authority' (Banyule, 2018). The cohousing exemption demonstrates a willingness to proactively support cohousing as an innovative housing model (within a suburban Melbourne context) that offers housing affordability, social and sustainability benefits (Banyule, 2018).

9 References

- Abraham, N. and Grange, K. de La (2006) 'Elder cohousing—an idea whose time has come?', *Communities: Journal of Cooperative Living*, 131, pp. 60–68. Available at: <http://www.plan-b-retirement.com/ElderCohoArticleC-Mag10.06.pdf>.
- Aged Care Policy and Reform Group (2014) *2012-14 Concise facts and figures in aged care*. Canberra: Department of Social Services, Australian Government. Available at: https://agedcare.health.gov.au/sites/g/files/net1426/f/documents/11_2014/att_a_-_2013-14_concise_facts_figures_in_aged_care.pdf.
- Ahn, J., Tusinski, O. and Treger, C. (2018) *Living Closer: The many faces of co-housing*. Studio Weave.
- Alves, T. and London, G. (2012) 'New housing for a shifting urban paradigm: Housing development co-operatives as a more affordable and sustainable alternative for housing provision in Australian cities', in *6th Australasian Housing Researchers' Conference*.
- Anderton, F. (2015a) 'Berlin's R50 Baugruppe is a Model of Living Affordably , Collectively', *KCRW Design & Architecture Blog*, pp. 1–7. Available at: <http://blogs.kcrw.com/dna/berlins-r50-baugruppe-is-a-model-of-living-affordably-collectively> (Accessed: 25 November 2016).
- Anderton, F. (2015b) 'Berlin's R50 Baugruppe is a Model of Living Affordably , Collectively', *KCRW Design & Architecture Blog*, pp. 1–7.
- Australian Institute of Health and Welfare (2012) *Residential aged care in Australia 2010 - 2011 A Statistical Overview*. Available at: <http://www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=10737422896>.
- Australian Institute of Health and Welfare (2014) *Healthy life expectancy in Australia: patterns and trends 1998 to 2012*. Available at: <http://www.aihw.gov.au/publication-detail/?id=60129549634>.
- Bamford, G. and Lennon, L. (2008) 'Cohousing and rethinking the neighbourhood: The Australian context', in *Environment Design Guide*. Australian Institute of Architects. Available at: <http://www.environmentdesignguide.com.au/>.
- Banyule, Planning Scheme (2018): planning-schemes.delwp.vic.gov.au/schemes/banyule
- Bliss, N. (2009) *Bringing Democracy Home*. West Bromwich, UK: Commission on Co-operative and Mutual Housing. Available at: <http://www.cds.coop/documents/Bringing Democracy Home Report.pdf>.
- Brenton, M. (2008) *The Cohousing Approach to 'Lifetime Neighbourhoods'*. Housing Learning and Improvement Network. Available at: <http://www.housingcare.org/downloads/kbase/3140.pdf> (Accessed: 23 February 2018).
- Brenton, M. (2013) *Senior cohousing communities—an alternative approach for the UK?, A Better Life*. Joseph Rowntree Foundation. Available at: <https://www.jrf.org.uk/sites/default/files/jrf/migrated/files/senior-cohousing-communities-full.pdf> (Accessed: 23 February 2018).
- Bridger, J. (2015a) 'Don't Call It A Commune', *Metropolis Magazine*, May. Available at: <http://www.metropolismag.com/May-2015/Dont-Call-It-A-Commune/>.
- Bridger, J. (2015b) 'Don't Call It A Commune', *Metropolis Magazine*, May.

Chatterton, P. (2013) 'Towards an agenda for post-carbon cities: Lessons from lilac, the uk's first ecological, affordable cohousing community', *International Journal of Urban and Regional Research*, 37(5), pp. 1654–1674. doi: 10.1111/1468-2427.12009.

Chester, K. (2015) 'Older Australians and the Bucket List: Speaking notes', in *Economic and Social Outlook Conference 2015*. Melbourne: Productivity Commission.

Chiodelli, F. and Baglione, V. (2013) 'Living together privately: for a cautious reading of cohousing', *Urban Research & Practice*, 7(1), pp. 20–34. doi: 10.1080/17535069.2013.827905.

Clough, S. et al. (2001a) *Intentional Communities Manual - 1st Edition*. Available at: <https://ballastexistenz.wordpress.com/2009/05/31/intentional-communities-not/%5Cnfiles/12958/intentional-communities-not.html>.

Clough, S. et al. (2001b) *Intentional Communities Manual - 1st Edition*.

Crabtree, L. et al. (2013) *The Australian Community Land Trust Manual*.

Crabtree, L. (2016) 'Self-organised housing in Australia: housing diversity in an age of market heat', *International Journal of Housing Policy*. Taylor & Francis, 6718(June), pp. 1–20. doi: 10.1080/14616718.2016.1198083.

Crisp, D. A. et al. (2013) 'What are older adults seeking? Factors encouraging or discouraging retirement village living', *Australasian Journal on Ageing*, 32(3), pp. 163–170. doi: 10.1111/j.1741-6612.2012.00623.x.

Dalton, J. H., Elias, M. J. and Wandersman, A. (2001) *Community psychology: Linking individuals and communities*. Stamford, CT: Wadsworth.

Daly, M. (2017) 'Quantifying the environmental impact of ecovillages and cohousing communities: A systematic literature review', *Local Environment: The International Journal of Justice and Sustainability*. Taylor & Francis, 22(11), pp. 1358–1377. doi: 10.1080/13549839.2017.1348342.

Daly, M. (2018) *"The most powerful form of activism is just the way you live ": grassroots intentional communities and the sustainability of everyday practice*. University of Technology Sydney.

Darab, S. and Hartman, Y. (2013) 'Understanding Single Older Women's Invisibility in Housing Issues in Australia', *Housing, Theory and Society*, 30(4), pp. 348–367. doi: 10.1080/14036096.2012.746944.

Dawson, J. (2007) 'Ecovillages achieve lowest-ever ecological footprint results', *Global Ecovillage Network–Europe Newsletter*.

Day, T. (2011) *Suburban adaptation: An investigation into the potential of adapting existing dwellings to improve affordability, increase occupancy rates and address the needs of the new demographic*. Available at: https://www.architects.nsw.gov.au/download/111212_Suburban_Adaptation_FINAL.pdf (Accessed: 23 February 2018).

Durrett, C. (2009) *The Senior Cohousing handbook*. Gabriola Island, Canada: New Society Publishers.

Fiedler, J. and Faulkner, D. (2017) *'The older I get the scarier it becomes': Older people at risk of homelessness in New South Wales - Summary Report*.

Gardner, I. L., Browning, C. and Kendig, H. (2005) 'Accommodation options in later life : retirement village or community', *Australasian Journal on Ageing*, 24(4), pp. 188–195. doi:

10.1111/j.1741-6612.2005.00121.x.

Glass, A. P. (2009) 'Aging in a Community of Mutual Support: The Emergence of an Elder Intentional Cohousing Community in the United States', *Journal of Housing For the Elderly*, 23(4), pp. 283–303. doi: 10.1080/02763890903326970.

Goodman, R. *et al.* (2013) *The experience of marginal rental housing in Australia, AHURI Final Report*. Available at: https://www.ahuri.edu.au/__data/assets/pdf_file/0018/2196/AHURI_Final_Report_No210_The-experience-of-marginal-rental-housing-in-Australia.pdf (Accessed: 23 February 2018).

Greiner, K. (2017) *Inquiry into the NSW Retirement Village Sector*. Sydney.

Grinde, B. *et al.* (2017) 'Quality of Life in Intentional Communities', *Social Indicators Research*. Springer Netherlands. doi: 10.1007/s11205-017-1615-3.

Hamilton, M. and Hamilton, C. (2006) 'Baby Boomers and Retirement: Dreams, Fears and anxieties', *The Australia Institute Discussion Paper*, (89), pp. 1–71. Available at: Google Scholar.

Helliwell, J. F. and Putnam, R. D. (2004) 'The social context of well-being', *Philosophical Transactions of the Royal Society London B*, 359, pp. 1435–1446. doi: 10.1093/acprof:oso/9780198567523.003.0017.

Henson, D. *et al.* (no date) *Legal Structures for Intentional Communities in the United States, Fellowship for Intentional Communities*. Available at: www.ic.org (Accessed: 31 August 2015).

Homelessness NSW (2016) *A Plan for Change: Homes for Older Women*. Sydney: Homelessness NSW.

Humpel, N. *et al.* (2010) 'The health of Australian baby boomers', *Australasian Journal on Ageing*, 29(1), pp. 8–13. doi: 10.1111/j.1741-6612.2010.00412.x.

Jarvis, H. (2015) 'Towards a deeper understanding of the social architecture of co-housing: evidence from the UK, USA and Australia', *Urban Research & Practice*, 8(1), pp. 93–105. doi: 10.1080/17535069.2015.1011429.

Jones, A. *et al.* (2007) *Rental housing provision for lower-income older Australians, AHURI Final Report No. 98*. 98. Australian Housing and Urban Research Institute.

KELLY Research (2012) *Household savings and retirement: Where has all my super gone? A report on superannuation and retirement for CPA Australia*.

Lietaert, M. (2010) 'Cohousing's relevance to degrowth theories', *Journal of Cleaner Production*. Elsevier Ltd, 18(6), pp. 576–580. doi: 10.1016/j.jclepro.2009.11.016.

Lloyd, M. G., Peel, D. and Janssen-Jansen, L. B. (2015) 'Self-build in the UK and Netherlands: mainstreaming self-development to address housing shortages?', *Urban, Planning and Transport Research*. Routledge, 3(1), pp. 19–31. doi: 10.1080/21650020.2014.987403.

Marckmann, B. and Gram-Hanssen, K. (2012) 'Sustainable Living and Co-Housing: Evidence from a Case Study of Eco-Villages', *Built Environment*, 38(3), pp. 413–429.

Marckmann, B., Gram-Hanssen, K. and Christensen, T. H. (2012a) 'Sustainable Living and Co-Housing: Evidence from a Case Study of Eco-Villages', *Built Environment*, 38(3), pp. 413–429.

Marckmann, B., Gram-Hanssen, K. and Christensen, T. H. (2012b) 'Sustainable Living and Co-Housing: Evidence from a Case Study of Eco-Villages', *Built Environment*, 38(3), pp. 413–429.

Markle, E. A. *et al.* (2015) 'Social support in the cohousing model of community: a mixed-methods analysis', *Community Development*. Routledge, 46(5), pp. 616–631. doi: 10.1080/15575330.2015.1086400.

- McCamant, K. and Durrett, C. (2011) *Creating Cohousing: Building Sustainable Communities*. Gabriola Island, BC: New Society Publishers.
- McGee, C. and Benn, S. (2015) 'How co-housing could make homes cheaper and greener', *The Conversation*, 20 April. Available at: <https://theconversation.com/how-co-housing-could-make-homes-cheaper-and-greener-39235>.
- McGee, C. M. and Wynne, L. (2015) *Regenerating the Suburbs: A model for compact, resilient cities*. Gold Coast: Proceedings of the State of Australian Cities Conference 2015.
- McGee, C., Wynne, L. and Lehmann, S. (2017) 'Housing innovation for compact, resilient cities', in Lehmann, S. and Bay, P. (eds) *Growing Compact: Urban Form, Density and Sustainability*. New York and London: Routledge.
- Meltzer, G. (2005) *Sustainable Community: Learning from the cohousing model*. Victoria, BC: Trafford Publishing.
- Meltzer, G. (2010) 'Ecovillages and Cohousing: A personal take on their similarities and differences.', in Vestbro, D. U. (ed.) *Living Together—Cohousing Ideas and Realities Around the World*. Stockholm: Royal Institute of Technology, pp. 105–113.
- Meltzer, G. and Metcalf, B. (2005) 'Sustainable Community: Learning from the cohousing model', *Communities*. Trafford Publishing.
- Morris, A. (2009a) 'Contentment and suffering: The impact of Australia's housing policy and tenure on older australians', *Australian Journal of Social Issues*, 44(4), pp. 363–377.
- Morris, A. (2009b) 'Living on the Margins: Comparing Older Private Renters and Older Public Housing Tenants in Sydney, Australia', *Housing Studies*, 24(5), pp. 693–707. doi: 10.1080/02673030903087566.
- Morrish, G., Spencer, A. and Hancock, L. (2004) *Seniors Living Policy: Urban design guidelines for infill development*. Sydney.
- Mulder, K., Costanza, R. and Erickson, J. (2006) 'The contribution of built, human, social and natural capital to quality of life in intentional and unintentional communities', *Ecological Economics*, 59, pp. 13–23.
- Murray, S. et al. (2011) *Infill Opportunities: Design Research Report*. Prepared for the Office of the Victorian Government Architect.
- Murundaka Cohousing (2016) *Murundaka Cohousing Community*. Available at: <http://www.murundakacohousing.org.au/> (Accessed: 1 August 2016).
- NSW Government (2016) *NSW Intergenerational Report 2016: Future state NSW 2056*. Available at: https://www.treasury.nsw.gov.au/sites/default/files/2017-01/Budget_Paper_5_-_Intergenerational_Report_2016_-_full_report.pdf (Accessed: 23 February 2018).
- O'Brien, E. (2015) *North Coast Seniors Housing for Life Charrette*. Southern Cross University.
- Pedersen, M. (2015) 'Senior Co-Housing Communities in Denmark', *Journal of Housing For the Elderly*, 29(1–2), pp. 126–145. doi: 10.1080/02763893.2015.989770.
- Perinotto, T. (2015) 'Radical apartments : After The Commons, The Nightingale keeps ruffling feathers', *The Fifth Estate*, 13 March. Available at: <http://www.thefifthestate.com.au/business/innovators-fringe-elements/radical-apartments-after-the-commons-the-nightingale-keeps-ruffling-feathers/72333>.
- Petersen, M. et al. (2014) *Preventing first time homelessness amongst older Australians, AHURI Final Report*. The University of Queensland: Australian Housing and Urban Research Institute.

Available at: <https://www.ahuri.edu.au/research/final-reports/222>.

Pöyry Energy Consulting (2009) *Project Report: CO2 emissions in eco-societies*. Copenhagen, Denmark: Pöyry Energy Consulting. Available at: <http://voresomstilling.dk> (Accessed: 8 September 2014).

Productivity Commission (2008) *Trends in Aged Care Services: some implications, Commission Research Paper*. Canberra.

Productivity Commission (2015) *Housing Decisions of Older Australians*. Canberra: Commission Research Paper.

Property Council of Australia (2014) *National overview of the retirement village sector*.

Putnam, R. D. (2001) *Bowling Alone: The Collapse And Revival Of American Community*. New York: Simon & Schuster.

Quine, S. and Carter, S. (2006) 'Australian baby boomers' expectations and plans for their old age', *Australasian Journal on Ageing*, 25(1), pp. 3–8. doi: 10.1111/j.1741-6612.2006.00147.x.

Retirement Villages Act (1999).

Robb, K. (2017) 'Baugruppen model ditches developers so that apartment buyers save', *Domain.com.au*, 26 June. Available at: <https://www.domain.com.au/news/baugruppen-model-ditches-developers-so-that-apartment-buyers-save-20170626-gwwz8w/>.

Rogers, M. F. (2014) 'Will baby boomers create new models of retirement community in rural Australia?', *Australasian Journal on Ageing*, 33(4), pp. E46–E50. doi: 10.1111/ajag.12096.

Ross, C. (2017) *What can you do if you don't want to go into a retirement village?*, ABC Online. Available at: <https://www.abc.net.au/news/2017-09-28/what-do-you-do-if-you-dont-want-to-go-into-a-retirement-village/8980724> (Accessed: 10 December 2018).

Ruiu, M. L. (2014) 'Differences between Cohousing and Gated Communities. A Literature Review', *Sociological Inquiry*, 84(2), pp. 316–335. doi: 10.1111/soin.12031.

Ryan, J. (2014) 'Multigenerational family home in Sydney's Balmain wins architecture prize'. By Design, ABC Radio National. Available at: <http://www.abc.net.au/radionational/programs/bydesign/moving-back-in-with-mum/5639108>.

Samuelsson, L. (2001) *Munksøgårds grønne regnskab*. Roskilde, Denmark: Munksøgårds.

Scanlon, K. and Arrigoitia, M. F. (2015) 'Development of new cohousing: lessons from a London scheme for the over-50s', *Urban Research & Practice*, 8(1), pp. 106–121. doi: 10.1080/17535069.2015.1011430.

Scheuer, C. (2002a) *Environmentally Responsible Behaviors in Cohousing: A Preliminary Assessment*. Independent study report, University of Michigan, Available from: <http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.197.8170>. Available at: <http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.197.8170>.

Scheuer, C. (2002b) *Environmentally Responsible Behaviors in Cohousing: A Preliminary Assessment*. Independent study report, University of Michigan, Available from: <http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.197.8170>.

Schwartz, H. (2013) *Cooperative housing for an ageing Australia (Masters thesis)*. Available at: https://msd.unimelb.edu.au/sites/default/files/docs/Hannah_Schwartz_Thesis.pdf (Accessed: 23 February 2018).

Sharam, A., Bryant, L. E. and Alves, T. (2015a) 'De-risking development of medium density

- housing to improve housing affordability and boost supply', *Australian Planner*, 52(3), pp. 210–218. doi: 10.1080/07293682.2015.1034146.
- Sharam, A., Bryant, L. E. and Alves, T. (2015b) 'Identifying the financial barriers to deliberative, affordable apartment development in Australia', *International Journal of Housing Markets and Analysis*, 8(4), pp. 471–483. doi: 10.1108/IJHMA-10-2014-0041.
- Sharam, A., Bryant, L. E. and Alves, T. (2015c) *Making apartments affordable: Moving from speculative to deliberative development*. Swinburne University of Technology. Available at: https://eprints.qut.edu.au/90144/1/2015_making_apartments_affordable-finalfinal.pdf.
- Shareable (ed.) (2018) *Sharing Cities: Activating the Urban Commons*.
- Sherry, J. and Ormsby, A. (2016) 'Sustainability in Practice: A Comparative Case Study Analysis of the EcoVillage at Ithaca, Earthaven, and Sirius', *Communal Societies: Journal of the Communal Studies Association*, 36(2), pp. 125–151.
- Snowdon, J. and Fleming, R. (2008) 'Recognising depression in residential facilities: An Australian challenge', *International Journal of Geriatric Psychiatry*, 23(3), pp. 295–300. doi: 10.1002/gps.1877.
- Stevens, J. (2016) *Growing Older Together : An Overview of Collaborative Forms of Housing for Older People*. Housing Learning & Improvement Network.
- Sydney Women's Homeless Alliance (2017) *Older Women's Studio Development Project*.
- Szaraz, L. R. (2015) 'Pro-environmental characteristics of urban co-housing communities', *Geographical Locality Studies*, 3(1), pp. 490–529.
- The Sheffield Cohousing Network (2018) *The Sheffield Cohousing Network: About*. Available at: <https://sheffieldcohonetwork.wordpress.com/about/> (Accessed: 13 August 2018).
- Tokuda, Y., Fujii, S. and Inoguchi, T. (2010) 'Individual and Country-Level Effects of Social Trust on Happiness: The Asia Barometer Survey', *Journal of Applied Social Psychology*, 40(10), pp. 2574–2593. doi: 10.1111/j.1559-1816.2010.00671.x.
- Tummers, L. (2015) 'Understanding co-housing from a planning perspective: why and how?', *Urban Research & Practice*, 8(1), pp. 64–78. doi: 10.1080/17535069.2015.1011427.
- Vestbro, D. U. (2000) 'From collective housing to cohousing—a summary of research', *Journal of Architectural and Planning Research*, 17(2), pp. 164–178.
- Williams, J. (2005a) 'Designing neighbourhoods for social interaction: The case of cohousing', *Journal of Urban Design*, 10(2), pp. 195–227. doi: 10.1080/13574800500086998.
- Williams, J. (2005b) 'Sun , surf and sustainable experience Sun , Surf and Sustainable Housing — Cohousing , the Californian Experience', *International Planning Studies*, 10(2), pp. 145–177.
- Williams, J. (2007) 'Innovative solutions for averting a potential resource crisis - The case of one-person households in England and Wales', *Environment, Development and Sustainability*, 9(3), pp. 325–354. doi: 10.1007/s10668-006-9068-x.
- Williams, J. (2008) 'Predicting an American future for cohousing', *Futures*, 40(3), pp. 268–286. doi: 10.1016/j.futures.2007.08.022.
- Wood, G. et al. (2008) 'The implications of loss of a partner for older private renters', *AHURI Final Report*, (116), pp. 1–110.