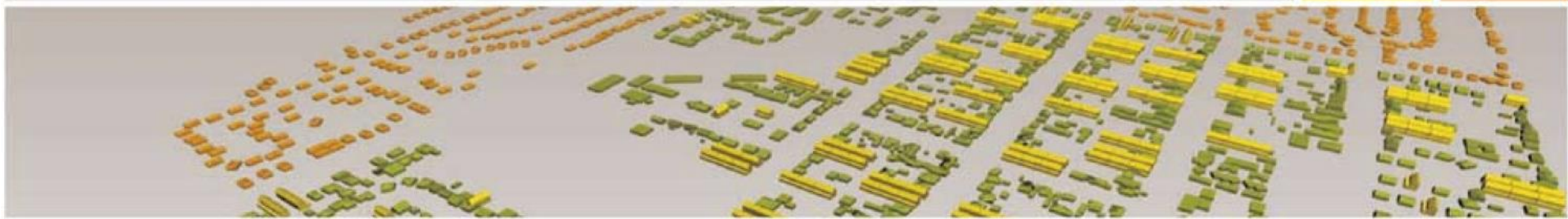


IFA Symposium

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CITYFUTUREs



Home Truths Housing and Neighbourhood Design and Care for Ageing in Place in Australia

Bruce Judd, Diana Olsberg,
Joanne Quinn and Catherine Bridge



BUILT ENVIRONMENT

Australia's Ageing Population

ABS Estimates 2004-2051

- % of 60 yrs and over will double
- % of 85 yrs and over will quadruple

Intergenerational Report 2002

- 40 year forecast of huge budget blowout due to ageing
- Increased costs of health and aged care

A major social and economic policy challenge

- Ageing in place a key strategy
- Housing and neighbourhood design is critical

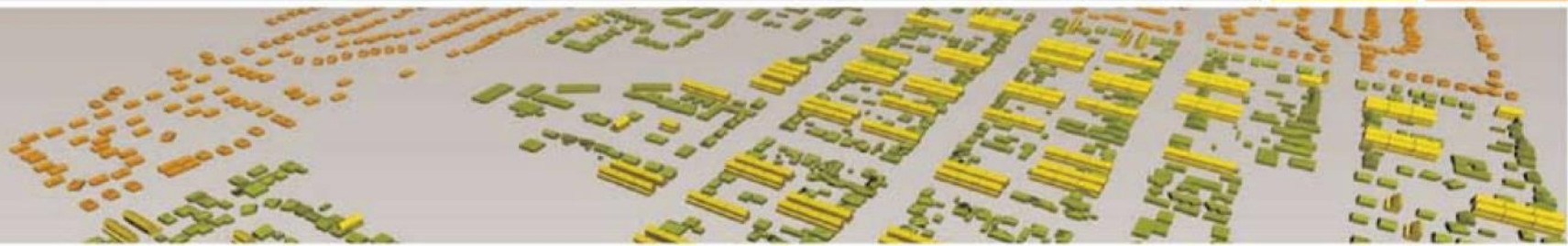
The Research Projects

- **2005** Ageing in Place? Intergenerational and intrafamilial housing transfers and shifts in later life (Olsberg & Winters)
- **2008** The costs and benefits of using private housing as the 'home base' for care of older people (Bridge, Phibbs, Kendig, Matthews, Cooper)
- **2008** Reverse mortgages and older people: growth factors and implications for retirement decisions (Bridge, Matthews, Phibbs, Adams)
- **2010** Dwelling Land and Neighbourhood Use by Older Home Owners (Judd, Olsberg, Quinn, Groenhart, Demirbilek)

Presenters and Topics

- **Dr Diana Olsberg, Sociology/Gerontology**
Attitudes, needs and housing options for the future
- **A/Prof Bruce Judd, Architecture & Urban Design**
Housing and neighbourhood: utilisation & participation.
- **Joanne Quinn, Industrial Design**
Approaches to housing design: implementation by market or regulation?
- **A/Prof Catherine Bridge, Occupational Therapy**
Taking care: costs and benefits of providing care services in the home.

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Attitudes, Needs and Housing Options for the Future

Diana Olsberg



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A new age for old age?

- Increasing longevity, wellbeing and healthy productive ageing
- Diversity of life passages, in life experiences, in family & cultural backgrounds
- Radical departures from traditional notions of old age & family obligations
- Enhanced expectations for what 'life' (particularly 'later life') will offer
- Transformation in family relationships & responsibilities
- Crucial role of housing for lifestyle and life chances
- Housing options vital for fiscal sustainability

Shifts in values and priorities

- Baby Boomers transforming values & attitudes for selves AND their parents
- Priority of personal choices for independence, personal control and autonomy - *“Losing my independence would spell the end of life for me”*
- Mobility, Flexibility, Fluidity - Jobs, Homes, even Families
- Patterns of housing tenure, lifestyle & family relationships are changing - even among migrant communities
- Personal choices, the ‘adventures’ of later life



“Cancel the Harley
and trekking to
Everest Base camp!”

The meanings of 'home'

- Our research reveals the necessity to understand housing utilisation and the social & cultural complexities of human attitudes & behaviour regarding housing liveability
- Home is more than “machine for living” - it is a symbol of autonomy & independence in the face of ageing experience
- Remains iconic status – the ‘Australian Dream’ a symbol laden with memories & meaning
- Major asset - source of financial security, investment, retirement savings/superannuation

Housing, Independence & Autonomy

- Older Australians strong desire to ‘Age in Place’, remain living independently in the community
- People express satisfaction with their current home, particularly location
- Nine out of ten older people rate their home as “very suitable” for family, work & leisure to age healthily, actively and well.
- Priorities – familiarity & delight in their home & local environment
- Access to familiar local medical , health services, transport & community facilities
- Proximity to friends & family

Housing Sustainability & Liveability

- People value the space they have very highly - use it in very appropriate and creative ways
- People rarely talk of “excess rooms or space”
- Older people spend more time in their home than younger working counterparts – “need not to be underfoot with my spouse”
- Use home for part-time work, hobbies, pastimes.
- Regular temporary residents (children, grandchildren, relatives, students, visitors - particularly so for people with family overseas)

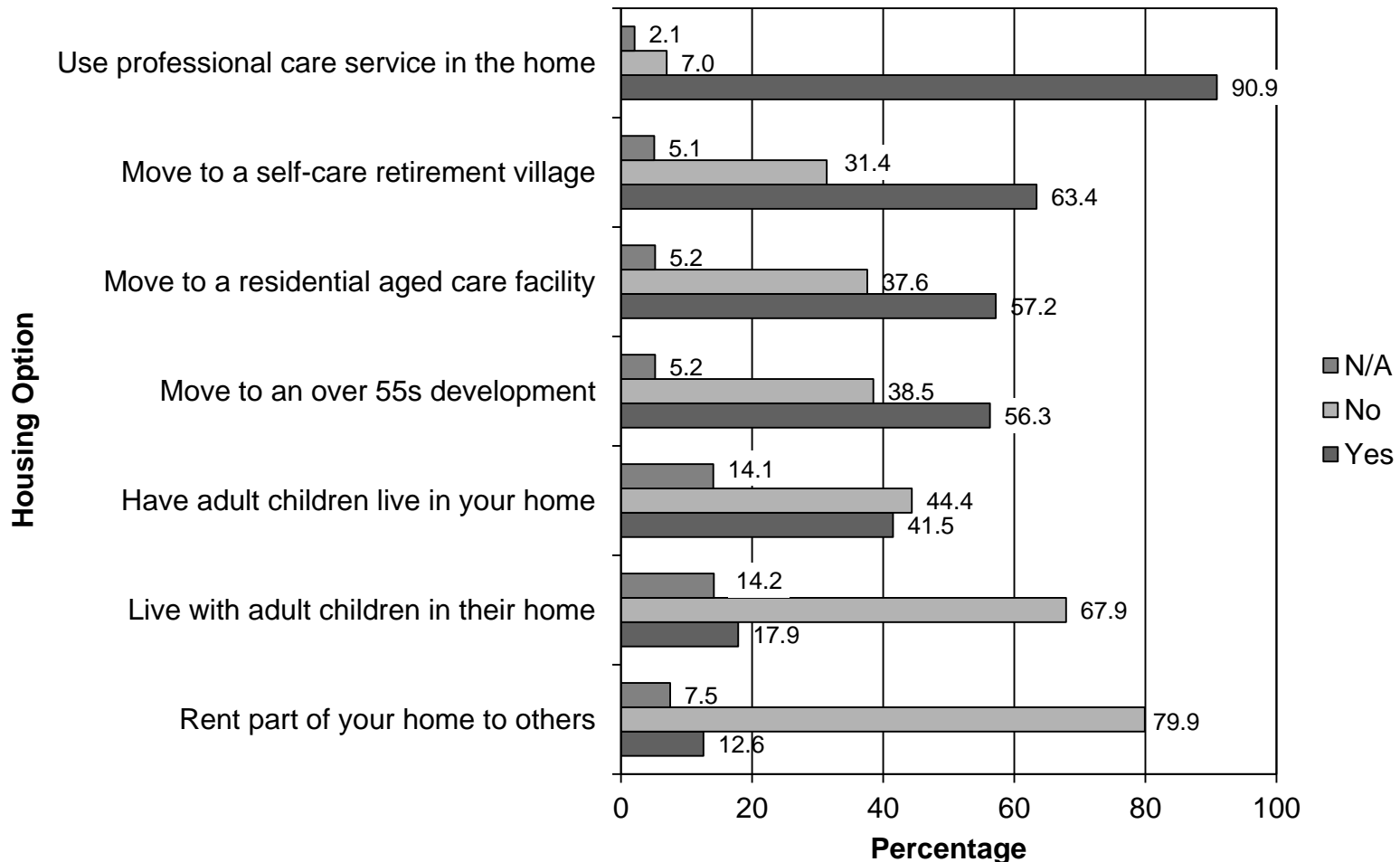
Expectations for the Future

- General lack of planning for future ageing & possible morbidity
- Some home modifications, mostly older people and/or as result of care responsibilities within household or visitors with special care needs
- Mostly modifications to bathrooms & stairs (grab rails etc)
- Less often - kitchen modifications, improved lighting, ramps, security bars
- Result = Improved livability of dwelling

Expectations for the future (cont.)

- Cost & affordability vital considerations – Men more able to pay than women
- High levels of concern & uncertainty – what is necessary & how to pay?
- Faced with various housing options to deal with ageing & possible future morbidity 9 out of 10 favoured remaining in their own home with support of professional services

Moving and staying put options



Future housing choices

- Desire to remain living independently within community
- In event of future morbidity highest importance for use of professional care service in the home (91% of respondents)
- Recognition that there may be a need in future to move to retirement village, over 50s development or supported environment
- But concern about cost, loss of independence & knowledge of 'bad experiences'

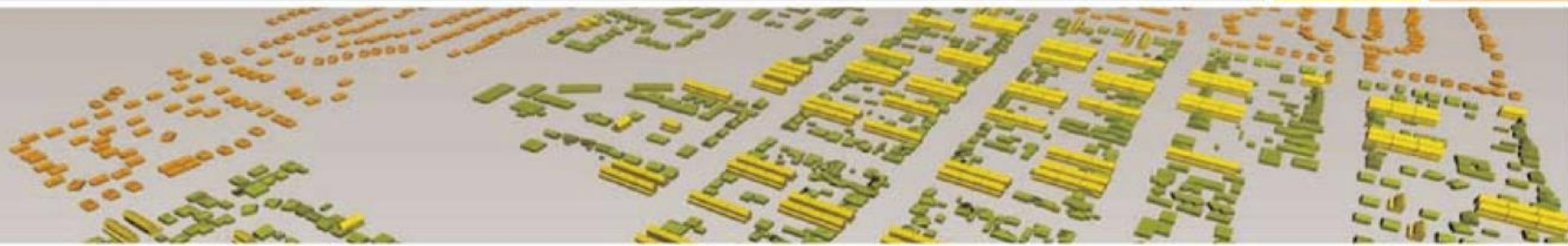
Sharing Accommodation

- Renting part of home or sharing with children contentious & generally not favoured
- General reluctance to living with children *“My children are very definite people, we don’t necessarily always agree”*; *“I think the generations don’t mix”*; *“I could live with my daughter, but I’d have to get rid of her husband as we don’t get on”*
- Even respondents from CALD backgrounds talk of changing values *“I want to live in my home. I was powerful. It was me. Now I don’t know who I am. I am nothing”*
- Some acceptance of independent accommodation in form of self-contained ‘granny flat’ – *“I could just come and go as I wanted”*; *“have private space”*

Shifting attitudes and priorities

- Housing becomes even more important to people as they age.
- Remains source of independence & autonomy, lifestyle choices, healthy ageing & wellbeing
- Future planning for ageing & possible morbidity very low among young old, particularly Baby Boomers
- People's attitudes change with advancing years & life situation
- Levels of unpreparedness lead to crisis situations
- Housing policies crucial for individual & family choices & desires
- Fiscal sustainability can only proceed with acceptance of all citizens – individuals & families of all ages

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Housing and Neighbourhood: Utilisation and Participation

Bruce Judd

The logo for AHURI (Australian Housing and Urban Research Institute) features a red arc above the text "AHURi".

Australian Housing
and Urban Research Institute

The logo for UNSW (The University of New South Wales) includes a crest on the left and the text "UNSW THE UNIVERSITY OF NEW SOUTH WALES" on the right.

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Relevant Research Questions

- How efficiently do older Australian home owners utilise the housing stock they occupy?
- What are the levels of participation of older home owners in locally based activities and social networks and how important is residential location in maintaining these?
- How important are design elements external to the land and dwelling (urban design) in maintaining access to local services, activities and amenities for older home owners?

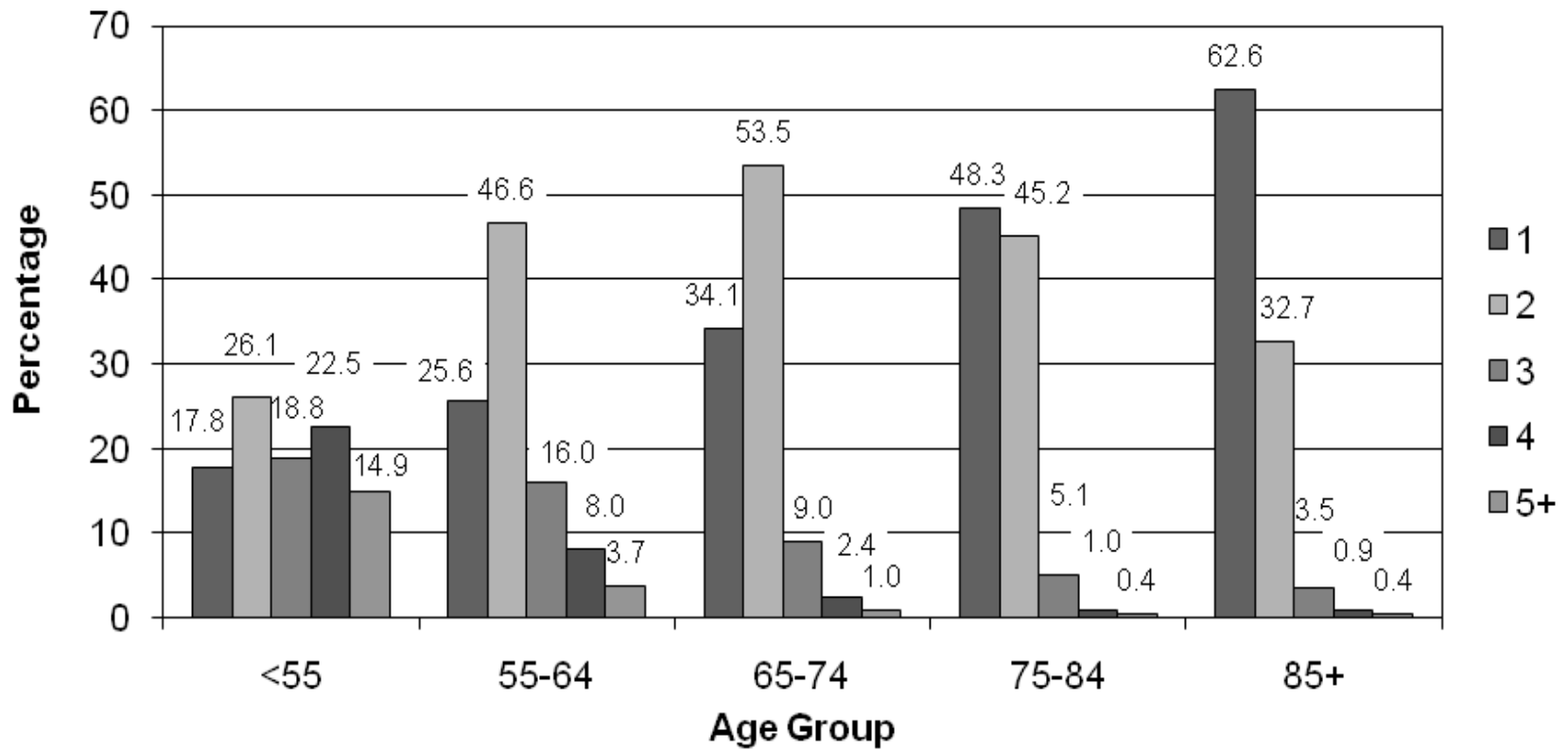
Methods

- Analysis of ABS Census and Australian Housing Survey data on dwellings and households – particularly in relation to dwelling utilisation
- National survey of 1604 older home owners via ‘50 Something’ magazine and CFRC website
- 70 in-depth interviews in the home from 5 states/territories with photographic records of dwelling and neighbourhood features

55+ Households & Dwellings (ABS)

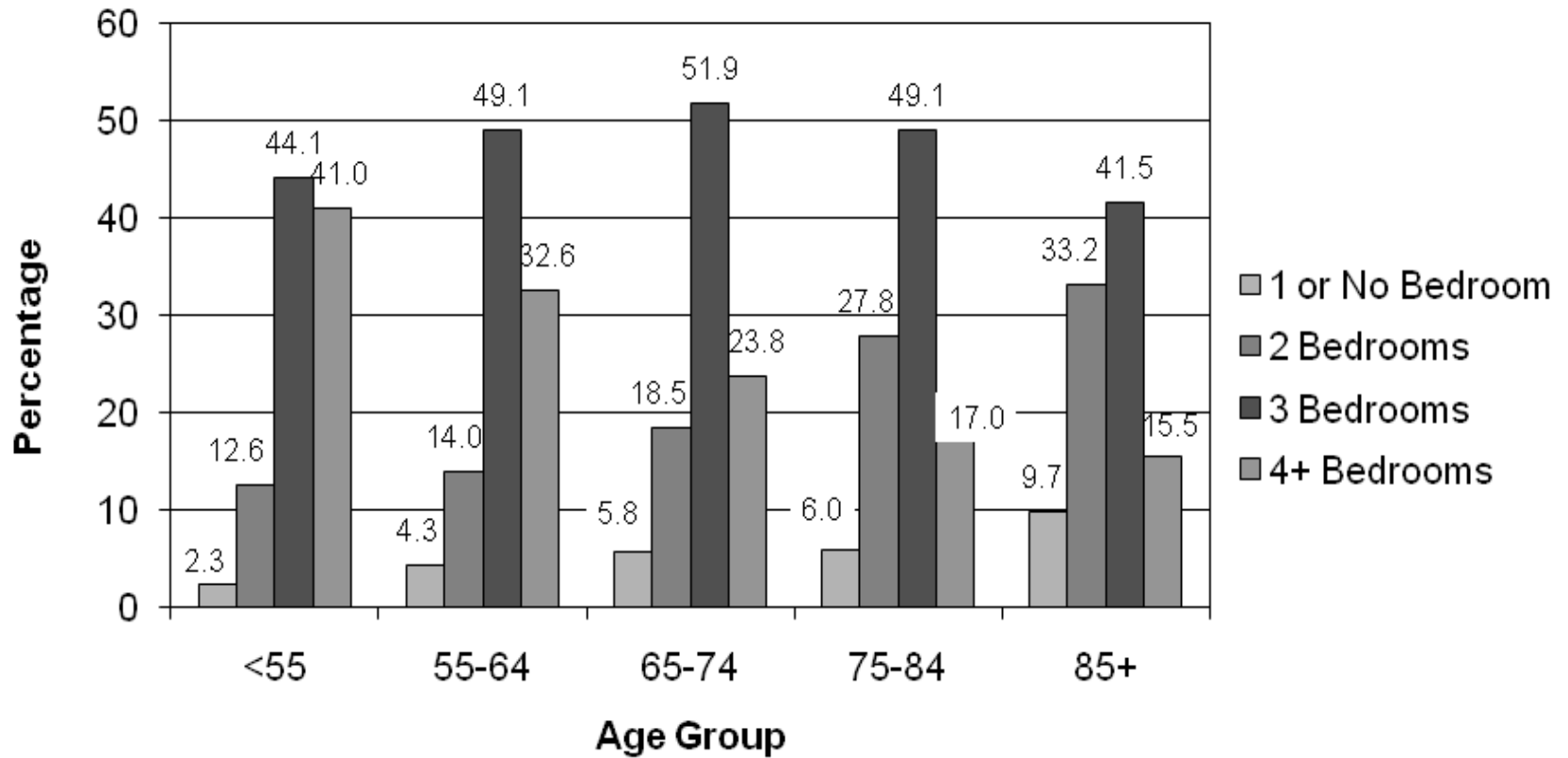
- 66% couples, 23% live alone
- 84% owner occupants
- 82% in separate houses
- 76% have 3 or more bedrooms
- 84% under-occupied (1 or more spare bedrooms) according to CNOS calculation
- 48% have 2 or more spare bedrooms
- 28% increase in under-occupancy from 1996-2006
- 12% have one or more temporary resident (1999 AHS)

Household Size by Age



Source: ABS 2006 Census

Age by Number of Bedrooms



Source: ABS 2006 Census

Use of 'Excess' Bedrooms (survey)

- 23% had 1 or more temporary residents
 - 37% adult children
 - 20% other relatives
 - 18% grandchildren
 - 14% friends
- 95% had 1 or more bedroom not used for sleeping
- Spare Bedroom Use
 - 34% office or study
 - 27% guest bedroom
 - 12% hobbies
 - 9% storage
 - 4% ironing
 - 2% reading

Examples of Spare Bedroom Use



Office/Study



Guest Bedroom



Hobby Room



Sewing Room

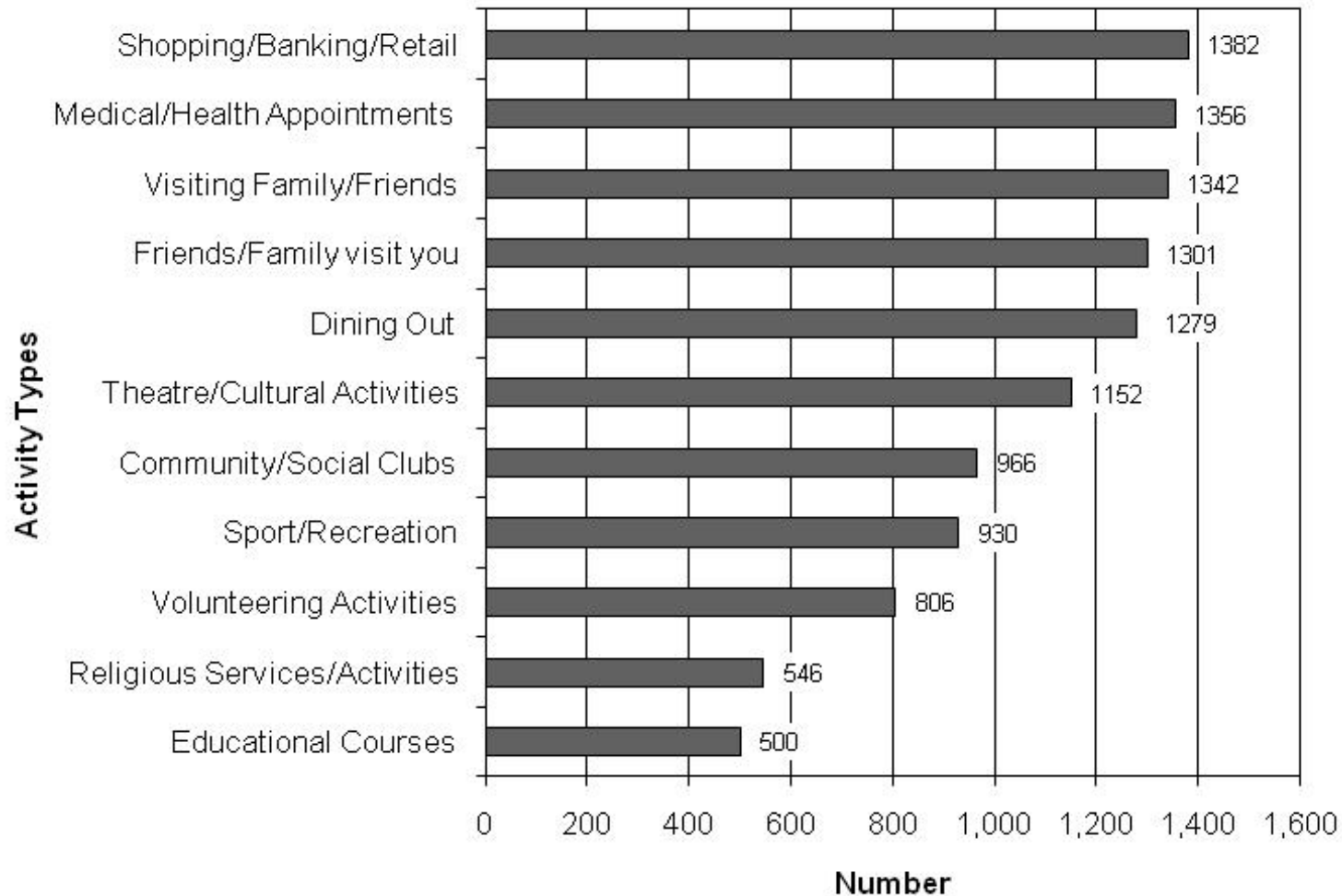


Exercise Room

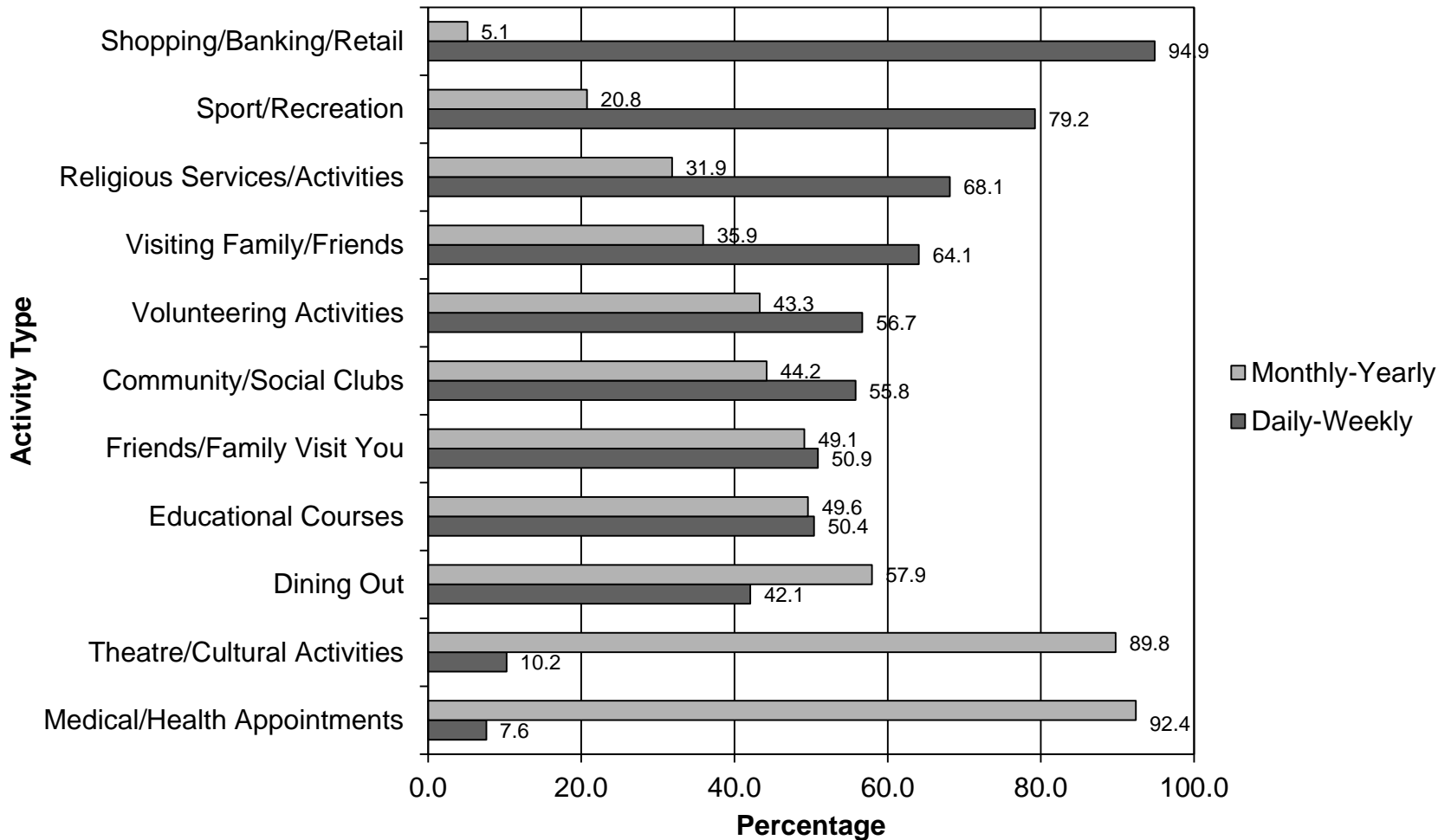


Media Room

Participation in the Neighbourhood



Frequency of Participation

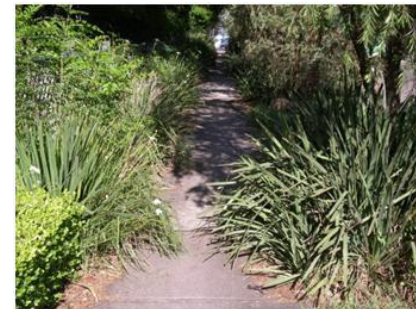


Transport and Participation

- Car Dependency
 - Highly car dependent (85-95% for all 11 activities)
 - Valued freedom and independence of private car
- Use of public transport
 - 85% had access to some form of public transport
 - 79% to bus transport
 - 46% to rail
- Barriers to use of public transport
 - Poor provision/quality of service (irregularity/unreliability)
 - Waiting/transfer times, queues, crowding
 - Confusing timetables and changed/terminated bus routes
 - Lack of accessible buses
 - Concerns about crime and safety on public transport

Neighbourhood Design Barriers

- Paths of travel
 - Absent/inadequate/inconsistent footpath provision
 - Poorly maintained, damaged or uneven paving surfaces
 - Inadequate footpath width
 - Too close to busy roads
 - Obstructions (trees & shrubs)
 - Inadequate provision of pedestrian crossings
 - Confusing or ambiguous paving cues
 - No/inadequate lighting at night



Neighbourhood Design Barriers

- Transport related infrastructure
 - Distance, steep topography to transport nodes
 - Lack of seating & shelter at nodes
 - Stair only access to stations and busses
 - Concern about crime and safety at/near transport nodes
- Public access buildings
 - Lack of seating
 - Stair only access to public/commercial buildings
 - Lack of handrails on entrance stairs



Neighbourhood Design Barriers

- Public open space
 - Poor provision, design or maintenance of open space
 - Lack of paths, seating, shelter in parks
 - Inadequate provision and maintenance of public toilets
- Street fixtures and furniture
 - Lack of seating provision
 - Poor provision, maintenance, opening hours of public toilets
 - Inadequate provision of local cafes



Neighbourhood Design Barriers

- Wayfinding
 - Confusing (curved) street layouts
- Safety and Security
 - Risk/fear of crime in public areas
 - Unsafe walking at night (poor lighting)
 - Anti social behaviour of young people around hotels

Conclusions

▪ Dwelling Utilisation

- Most older home owners live in separate houses with three or more bedrooms that appear under-utilised by current CNOS-based measures
- Older people utilise their homes more fully than suggested by these measures
- Spare bedrooms are often used to accommodate temporary residents or visiting family and friends
- They can also be used for a range of other activities important for positive and active ageing
- The vast majority of older home owners regard their dwelling as suitable for their needs and desire to age in place
- A new approach to measuring utilisation is needed that takes into account temporary residents and other uses

Conclusions

- **Participation in activities outside the home**
 - Older people participate in a wide range of activities outside the home
 - Close proximity to these activities is considered important
 - Older Australians are highly car dependent due largely to the freedom and independence offered.
 - Barriers to use of public transport include poor provision/ quality of services and inadequate design for accessibility
 - Neighbourhood design quality varies enormously and in many cases is not supportive of an ageing population
 - In addition to appropriate dwelling design, good quality urban design is important for supporting ageing in place
 - There is a need for national standards for age-friendly urban design to support an ageing population

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Approaches to Housing Design: Implementation by Market or Regulation

Joanne Quinn



Australian Housing
and Urban Research Institute



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Relevant research questions

- What are the **costs and benefits** of Adaptable and Universal Design of housing compared to conventional design and retrofitting?
- What is the level of **demand and consumer support** among older home owners for Adaptable and Universal Housing?

Methods

costs and benefits

- Cost benefit analysis of housing design approaches (Adaptable, Universal and Visitable Design) compared to modifying conventionally designed home

demand and consumer support

- National survey of 1604 older home owners via '50 Something' magazine and CFRC website
- 70 in-depth interviews in the home from 5 states/territories with photographic records of dwelling

Current design approach

Modifying housing (survey)

- 91% of older home owners preferred living at home with in-home professional care services if required
- 34% of older home owners had made modifications to home: grab rails and modification to bathrooms, stairs.
- 40% of older home owners likely to modify in future
- 46% of older home owners could/might not afford required modifications to their homes
- * Feasibility of modifications reduced in private rental market: low security of tenure, restoration cost

New design approaches



make housing accessible

consider access in construction

New design approaches

Modifying housing

Visitable

- own home and visit friends' / family's homes
- critical features - path to entrance
 - doorways
 - bathroom

Adaptable

Universal

New design approaches

Modifying housing

Visitable

- own home and visit friends' / family's homes
- critical features - path to entrance
 - doorways
 - bathroom

Adaptable

- Visitable
- easily and inexpensively modified in future

Universal

New design approaches

Modifying housing

Visitable

- own home and visit friends' / family's homes
- critical features - path to entrance
 - doorways
 - bathroom

Adaptable

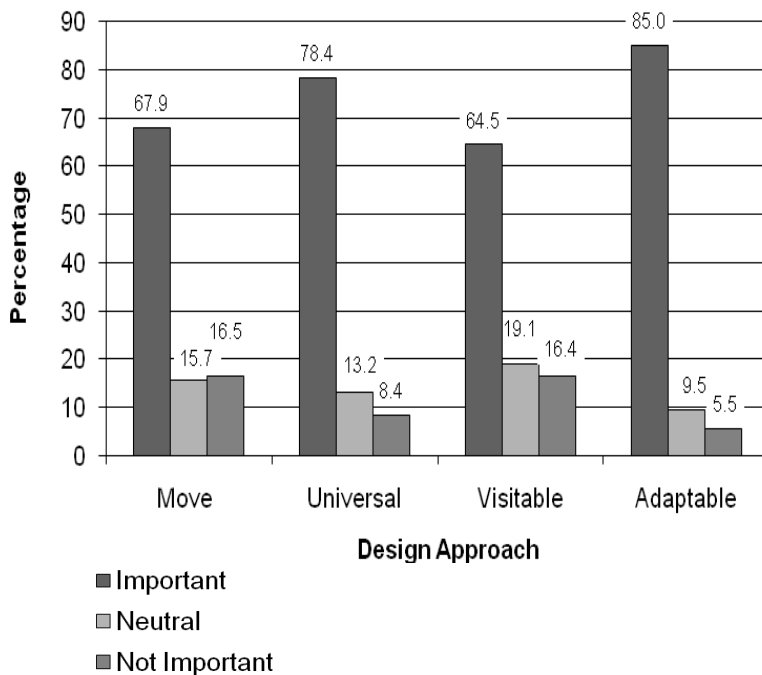
- Visitable
- easily and inexpensively modified in future

Universal

- all ages, all abilities, all the time
- avoid modification

New design approaches - support

A Comparison of Support for Different Approaches to Design



Visitable 65%

- Homes of friends and family

Adaptable 85%

- Can be modified easily and at low cost

Universal 78%

- Modification not required

Move 68%

- To a more suitable dwelling

Cost-benefit analysis

Modifying housing

- adapted AS 4299 C

Visitable

- AS 4299 definition

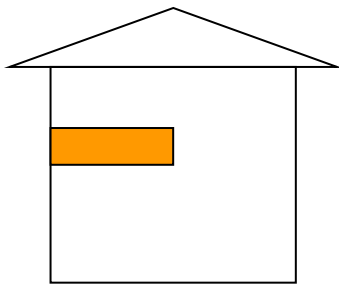
Adaptable

- AS 4299 C

Universal

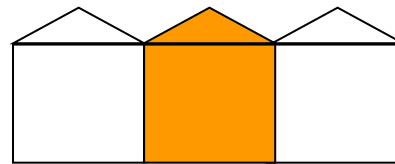
- 10 critical features

(ANUHD, 2009; DoHA, 2007, Nissim, 2008)



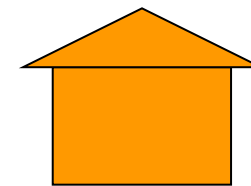
apartment

multi-storey, 2 bedroom,
basement parking, lift



attached house

2 storey, 3 bedroom,
single attached garage



separate house

2 storey, 4 bedroom,
single attached garage

Cost-benefit analysis



- Differences in criteria
 - impact on cost
 - feasibility after construction

	Entry		Internal
Visitable	800mm		800mm
Adaptable	850mm	at least one	820mm
Universal	920mm	main	920mm
Modification	850mm		820mm

Cost-benefit analysis



- Differences in criteria
 - impact on cost
 - feasibility after construction

	Entry	Internal
Visitable	800mm	800mm
Adaptable	850mm	at least one 820mm
Universal	920mm	main 920mm
Modification	850mm	820mm

850mm clearance = 920mm leaf door: add \$60+

Cost-benefit analysis



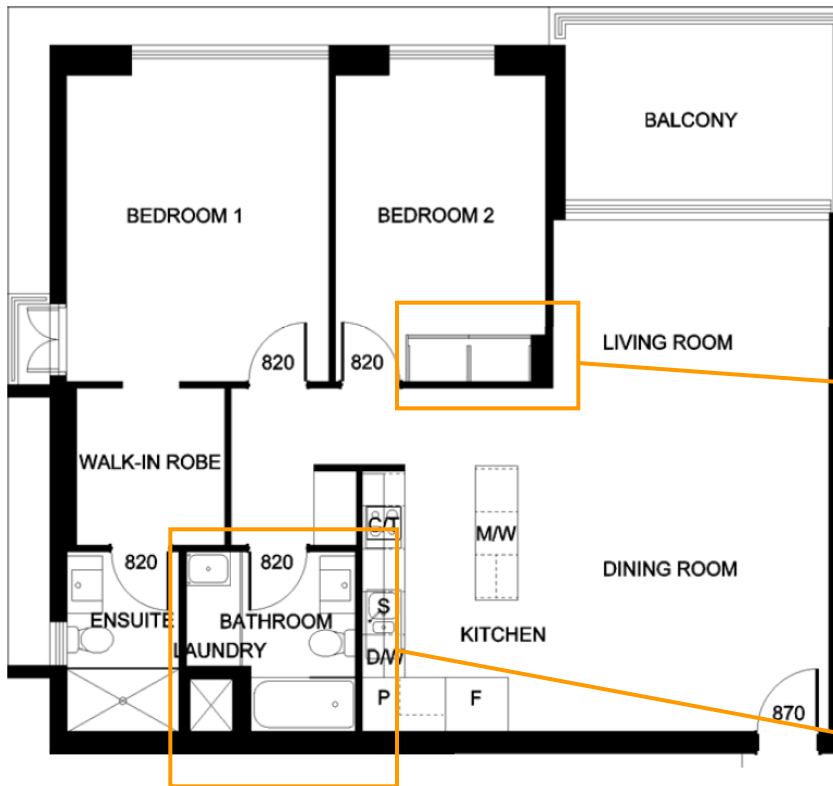
- Differences in criteria
 - impact on cost
 - feasibility after construction

	Entry	Internal
Visitable	800mm	800mm
Adaptable	850mm	at least one 820mm
Universal	920mm	main 920mm
Modification	850mm	820mm

850mm clearance = 920mm leaf door: \$2000+

for modification

Cost-benefit analysis



- Differences in criteria
 - impact on cost
 - feasibility after construction
- Future changes: cost, waste



Cost-benefit analysis



- Differences in criteria
 - impact on cost
 - feasibility after construction
- Future changes: cost, waste

Cost-benefit analysis



- Differences in criteria
 - impact on cost
 - feasibility after construction
- Future changes: cost, waste
- Access to/within 2nd storey
 - circulation space easily provided in bedroom/ensuite
 - circulation space to other bedrooms/bathrooms unfeasible as modification
 - cost of lift unfeasible for most

Cost-benefit analysis

- Approaches varied in design time and complexity
 - Visitable: most straightforward - accessible entrance
 - Adaptable: two designs, ambiguity/complexity in criteria
 - Universal: single design, avoids future changes
- Inconsistent design criteria
 - Differing feature requirements for Visitable/Adaptable/Universal
- Availability of products had direct bearing on feasibility
 - Opportunities for new home products
- Policy Viability
 - Visitable: lowest costs but fewer benefits
 - Visitable, Universal, Adaptable (ground level): most viable
 - Home modification: high cost, sub-optimal policy

Conclusions

Regulation or market implementation?

Regulation of critical access features is required

- ‘*Visitable Design*’ benefits exceeded costs

- accessible path to a main entrance;
- accessible path from entrance to kitchen, toilet, living area and potential bedroom;
- space surrounding the toilet area for a wheelchair user to enter, close door and use

- Further anthropometric study to determine performance requirements
- Older home owners frequent visitors to friends’/family’s homes

Conclusions

Regulation or market implementation?

Accessible features better provided at construction

- Standardise ‘cost neutral’ building features
 - eg: height of door hardware, light switches, environmental controls
- Accessible features requiring construction better provided at initial construction
 - Avoid construction changes to walls, bathrooms
 - Less costly, less waste, more marketable

Conclusions

Regulation or market implementation?

Market implementation of 'Universal' features

- Information showing benefits and market value of universal designs
- Reliable information on design requirements to assist designers/developer/builders and home owners
- Potential for new products and construction methods
- Assisted through new technology

Conclusions

- * **Cannot continue to rely solely on home modifications to provide safety and accessibility in housing**
 - Modification least cost effective
 - Many older home owners were uncertain or could not afford modifications they thought would be required
 - Many older home owners would move to more suitable home – these homes need to be available on the market

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Taking Care: Costs and Benefits of Providing Care Services in the Home

Catherine Bridge


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THE UNIVERSITY OF NEW SOUTH WALES

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Research questions

1. What are the financial costs and benefits to individuals and governments of using private housing as the home base for the provision of care services for older people?
2. How do the different aspects of housing, such as tenure, dwelling type, location and access to support, contribute to the financial costs and benefits of using private housing as the home base for the provision of care services for older people?
3. How do different forms of housing assistance and related programs affect the costs and benefits of using private housing as the home base for the provision of care services for older people?

Retirement Options

Option 4: accommodation bond sizes can vary widely but consumers cannot be left with less than \$36,000 in assets.



Accommodation bond

Option 3: entry fee and weekly rental indexed to CPI; Deferred Management Fee (DMF); 3% pa of Entry Fee capped at 10 years



Capital Gains

Option 1: may release funds for investment but may reduce age pension eligibility & ↓ assets and ↑ funds subject to capital gains tax.



Service eligibility



Option 2: average cost of modification is ↓ \$15,000; cost of any requirements/items above a basic and essential nature is the responsibility of the consumer

Entry fee



Background to research

- It is argued that providing care at home is directly substitutable for institutional care.
- It is generally believed that support in the home is cheaper than in institutional settings but this remains unclear.
- The Hogan report estimated that the demand for aged care services may rise from \$7.8 billion in 2002-2002 to \$106.8 billion by 2042-3.
- The costs and benefits of ageing in place are affected by a range of variables, including some housing characteristics such as tenure, dwelling type and house design.

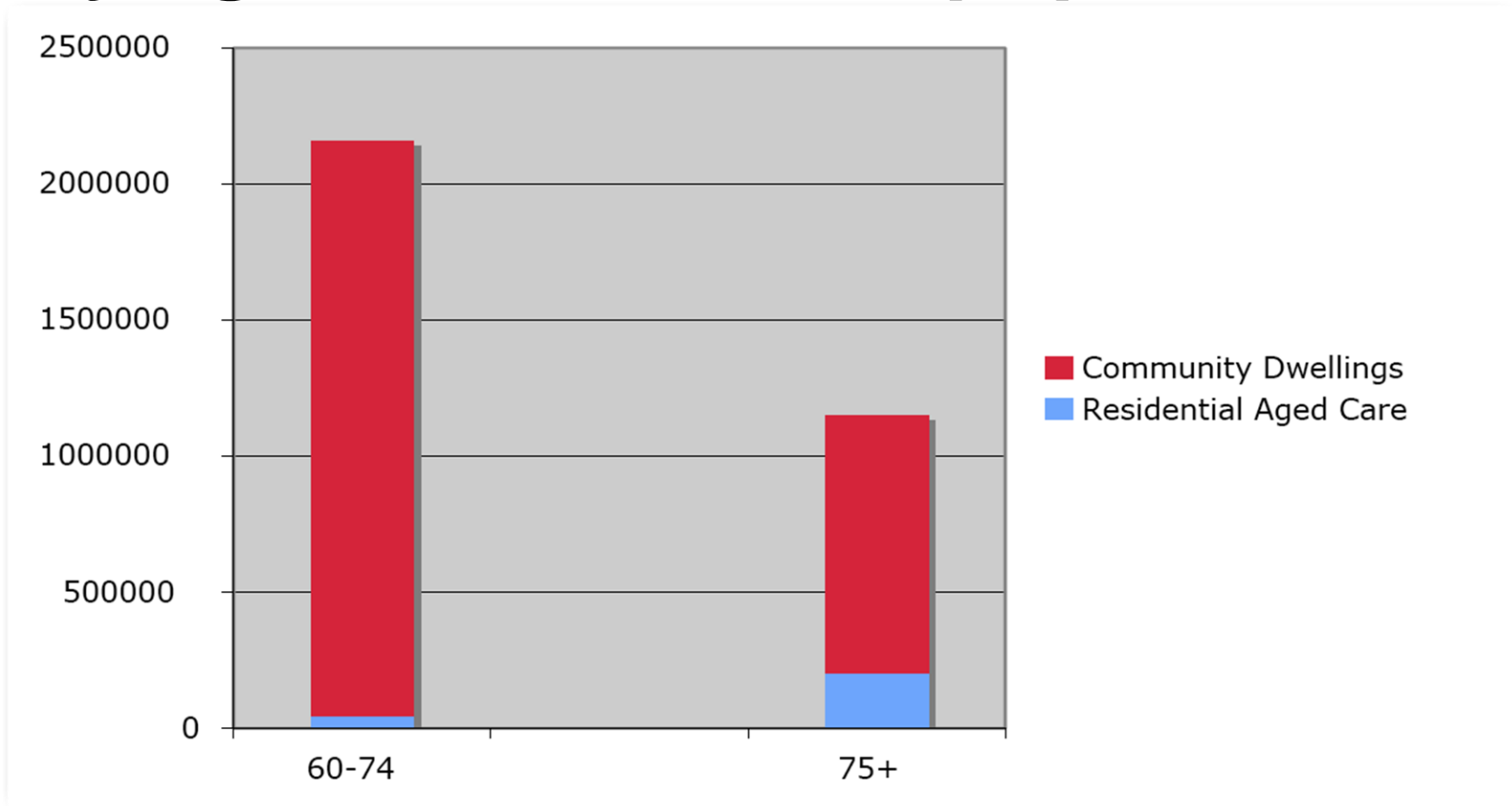
Background to research (cont.)

- As people age, their housing and care needs change. Thus it is critical to consider issues as they apply to those 65-79 years of age (younger old) and those 80 years of age and older (older old).

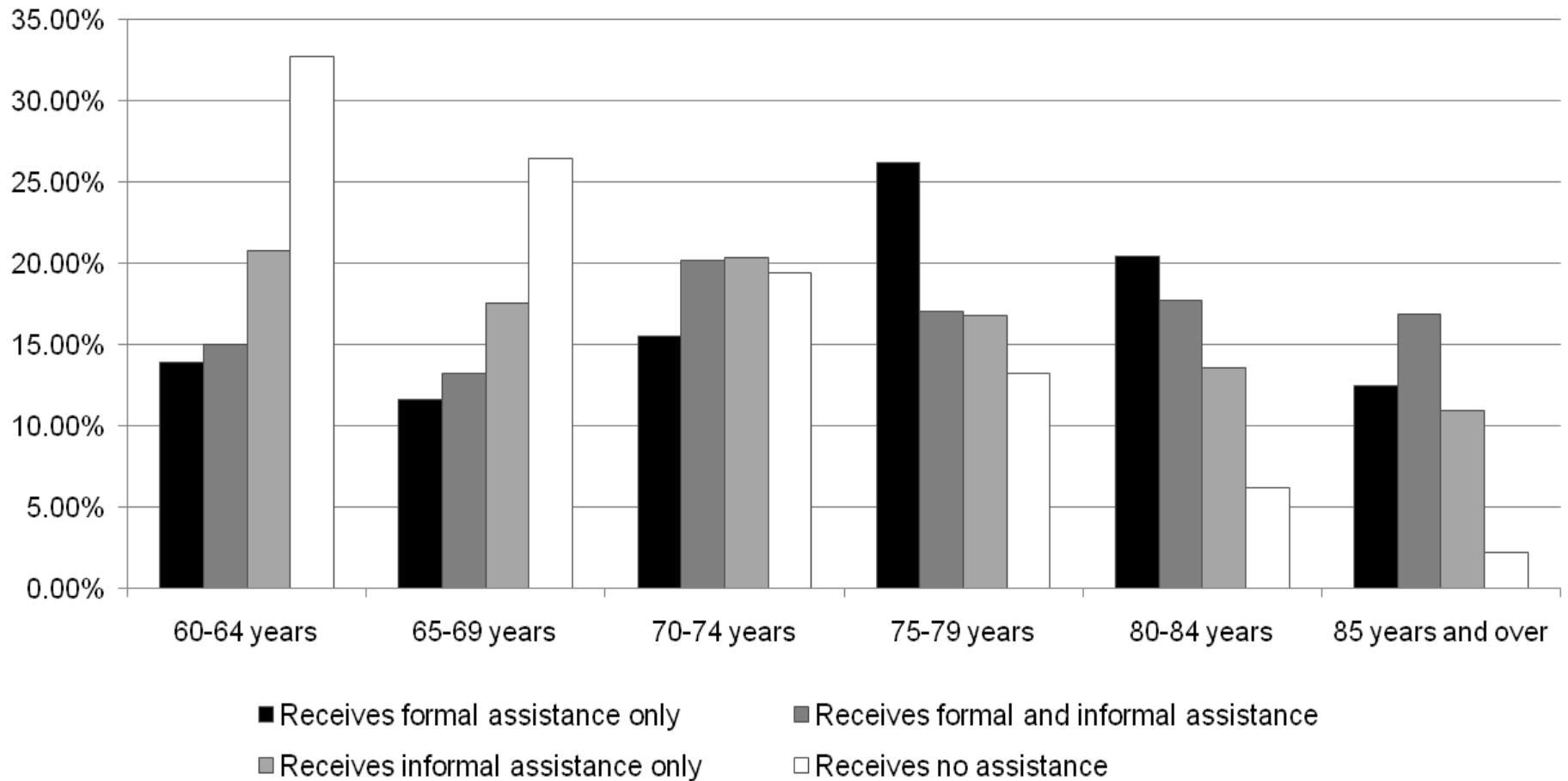
Housing as a variable in care costing

- Tenure rarely considered in quasi experimental work.
- Dwelling type NOT considered in quasi experimental work.
- Location and access to support occasionally considered but outcomes almost impossible to compare because of different cultures, climates and policy impacts.
- Often failure to consider the capital and maintenance costs adequately in housing comparisons.

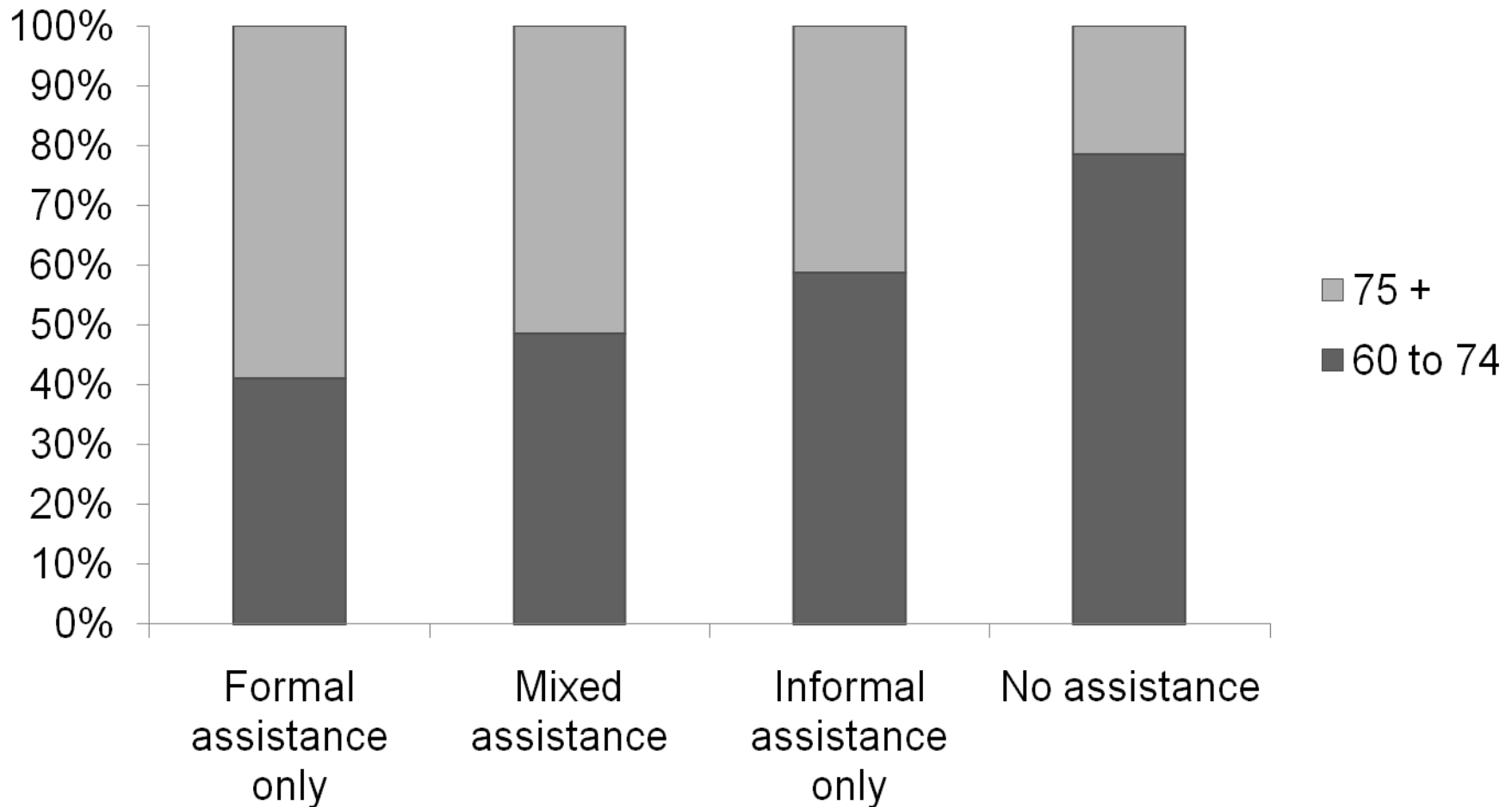
Distribution between dwelling types by age based on total population



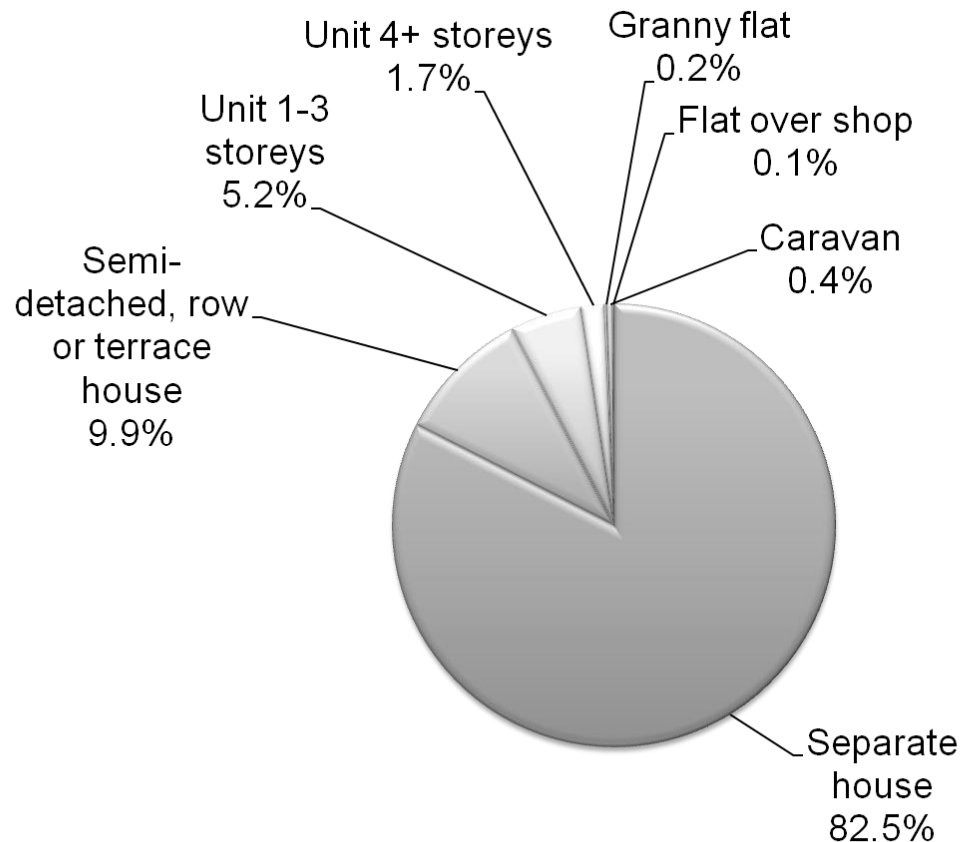
Age by type of assistance



Care types provided to older adults

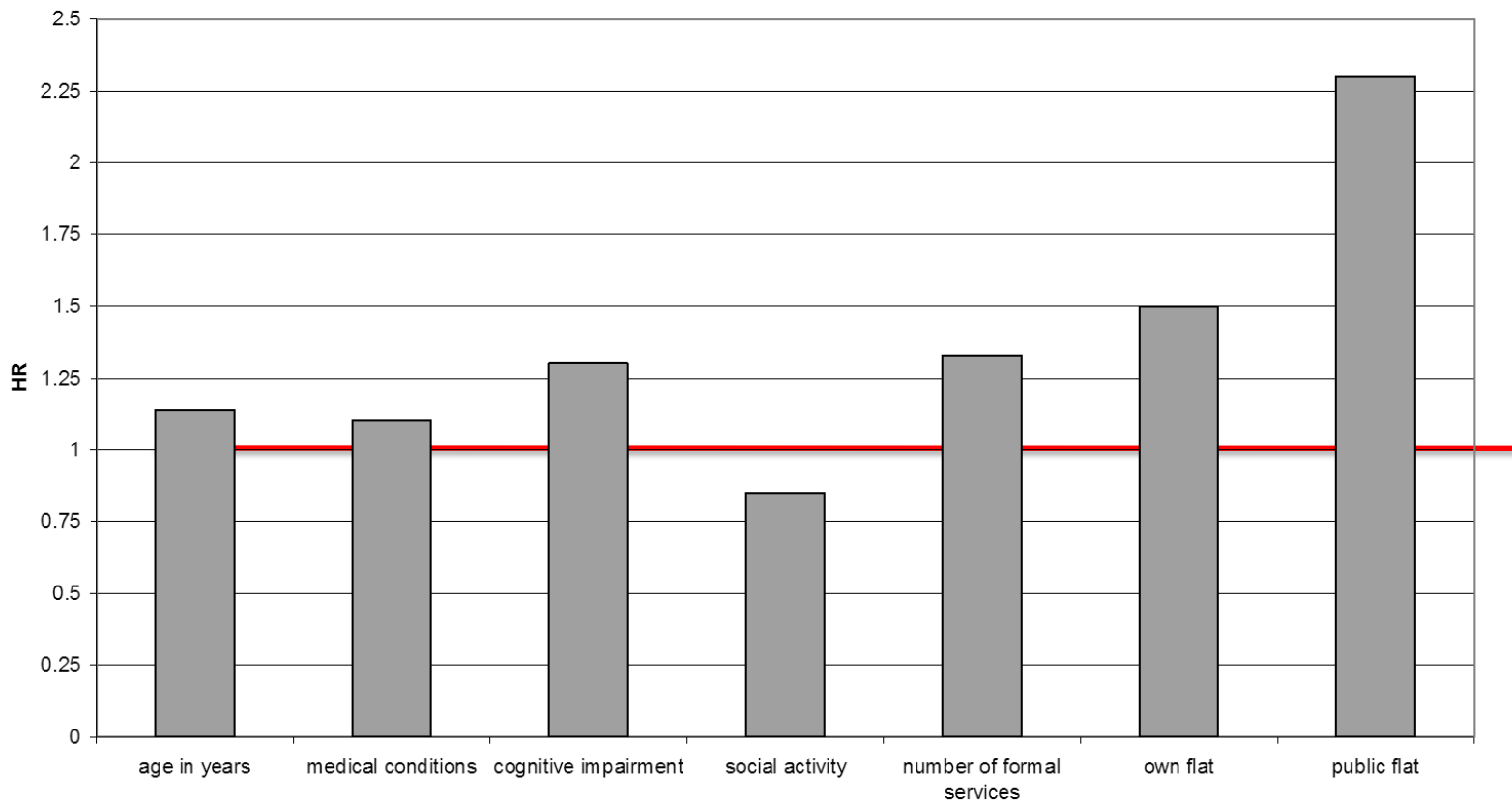


Community housing types occupied by older persons



Relative Risk of Entry to Residential Care

Cox Hazard ratios (HR) for NH admission



Cost of Support by assistance type

	Overall cost	
	<i>Mean</i>	<i>Sum</i>
Receives formal assistance only	\$7,520	\$2,200 million
Receives formal and informal assistance	\$11,370	\$2,020 million
Receives informal assistance only	\$10,880	\$6,758 million

Average annual cost per recipient of different care

Type of Care	Average cost estimate	Public share
Formal care only	\$7,520*	92%
Formal and informal care	\$11,370*	na
Informal care	\$10,880*	35%
Residential aged care	\$48,710	69%

* Authors estimates and Access Economics (2005) Table 4.3

Average annual cost of support by age

Age of persons	Mean cost of support		
	<i>Receives formal assistance only</i>	<i>Receives formal and informal assistance</i>	<i>Receives informal assistance only</i>
60 to 74	\$6,860	\$10,270	\$10,350
75 +	\$9,110	\$15,870	\$13,870

Cost of care by dwelling type

Dwelling type	<i>Receives formal assistance only</i>	<i>Receives formal & informal assistance</i>	<i>Receives informal assistance only</i>
	<i>Mean</i>	<i>Mean</i>	<i>Mean</i>
Separate house	\$7,464	\$11,379	\$10,837
Semi-detached, row or terrace house	\$6,868	\$11,273	\$10,943
Unit 1-3 storeys	\$7,726	\$11,068	\$9,698
Unit 4+ storeys	\$7,172	\$8,850	\$12,898
Caravan	\$8,540	\$7,110	\$13,000

Conclusions

- A nexus exists between housing and the cost of in-home care for older adults as housing directly affects care provision and cost capping.
- Formal or informal home-based care has the potential to provide large savings to Government.
- Home ownership appears to have significant effects on the potential to modify existing dwellings and the potential for older people to remain in the community.
- Dwelling condition and type may impose functional limitations that increase care costs or make home-based care difficult.

More information:

Australian Housing and Urban Research Institute:

www.ahuri.edu.au

City Futures Research Centre, UNSW

www.unsw.edu.au/cf

Home Modifications Information Clearinghouse, UNSW

<http://www.homemods.info>