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Tools for Good Homes for Ageing in Place

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This paper describes the development and trialling of three home repairs and maintenance assessment and solutions tools. The tools are tailored for use by older householders, social services or providers of housing for older people. The tools were based on and responded to four years of research on the repair and maintenance investments and practices of older people as part of the Good Homes research project. The research programme recognises that older people want to have a positive experience of ageing, to be valued and to live our lives in the places to which they are attached. The research also recognises that ageing is often associated with being displaced, moving away from homes and communities. Consequently, this research explores how unmet repairs and maintenance exacerbates those problems and how older people's houses can be better maintained so people have more choices about their housing as they get older. Data collected as part of the research included a 2008 national survey of older people's home maintenance practices, data from New Zealand's national dwelling condition surveys and community case studies on older people's perceptions of the condition and performance of their home, and their maintenance practices. The paper

describes the repairs and maintenance assessment and solutions tools. The paper also details the way in which the tools have been developed and trialled through charrettes and hands-on testing by older householders in their homes, service providers and property managers.

Key words: ageing, housing, repairs and maintenance

Introduction

'Ageing in place' is a well established concept that underpins policy objectives to assist older people to stay in their homes and communities as long as they are able and wish to do so. The Ageing in Place research programme¹ explores the ability of older people to age well in their homes and communities in New Zealand, with a particular focus on the role of house condition and performance in influencing older people's ability to age in place.

This research recognises that dilapidated housing and the burden of maintenance and repair have been identified as major factors in prompting older people to disengage from their communities and shift into higher dependency residential environments (Arblaster et al, 1996; Environmental Epidemiology Unit, 1999; Eurowinter Group, 1997; Hanson, J., 2001; Heywood, Oldman, and Means, 2002; Hopton and Hunt, 1996a; Hopton and Hunt, 1996b; Joseph Rowntree Foundation, 1998; McCarthy et al 1985; OECD, 2003; Scharf et al, 2001; Scharf et al, 2002; Terry and Joseph, 1998; Tinker, A., 2003; Wilkinson, Armstrong and Landon, 2001).

In many countries it is recognised that encouraging and assisting older people to address their repairs, maintenance and adaptations needs is critical if older people are to age in place and to keep well (Bridge and Flynn 2003; Leather, 2000; Mullins, Beider and Rowlands, 2004; ODPM 2002; Scottish Executive 2003). Being able to stay in one's home, neighbourhood and community are key components of fostering resilience and facilitating successful ageing (Netherland, Finkelstein and Gardner 2011).

The individual and externalised costs of poorly maintained, repaired and performing homes are significant. Such dwellings are likely to be cold, uncomfortable, and unsafe. They tend to be associated with fuel poverty, ill-health, neighbourhood decline, dependency and negative environmental impacts. Older people are not

¹ The Ministry of Science and Innovation funds the programme Ageing in Place: Empowering Older People to Repair and Maintain Safe and Comfortable Houses in the Communities.

resilient in houses that are poorly repaired, cold, and expensive to run. They become unhealthy, stressed and at risk of injury.

This paper reports on the main findings of the research programme, and the development of three home repairs and maintenance assessment and solutions tools to assist older householders to maintain their homes as safe and comfortable places. The tools are based on and respond to what the research found about the repair and maintenance investments and practices of older people.

The three tools developed in this research project are tailored for use by older householders, social services or experienced housing assessors. The householders and social services tools are similar. They constitute a check list that helps a person to go through their dwelling to systematically check for features that need repair, maintenance, or are unsafe. The tool assists the householder or social service provider to identify potential solutions to address any problems. The third tool is for use by property managers, housing providers, landlords or repairs and maintenance services with some technical knowledge of dwellings. It is both a paper-based and electronic tool that provides the ability to do a more detailed assessment of the dwelling and identification of priority repair/maintenance tasks, based on urgency, significance and potential cost.

The paper comprises the following sections:

- Section 2 discusses findings from the Ageing in Place research programme, including older people's repairs and maintenance experiences, the 2088 national survey of older people's house performance and their repairs and maintenance practices, and five case studies conducted as part of the research.
- Section 3 presents the three tools,
- Section 4 discusses how the tools have been trialled.
- Section 5 presents brief conclusions, as the trialling is still underway.

The Ageing in Place research programme

The Ageing in Place research programme addresses four critical questions:

- Do poor house performance, dilapidation and the burden of repairs and maintenance push older people from their houses into higher dependency living and disengage them from their communities?
- What services, products and assistance do older people need to maintain their houses as safe and comfortable places in which to live and do those needs vary according to locational, neighbourhood or socio-cultural characteristics?

- Are those services, products and assistance accessible, and are there some groups of older people whose access is particularly vulnerable?
- How can the private, public and community sectors best deliver the repair and maintenance services, products and assistance that will support older people to ensure that their homes are well maintained, in good repair and perform safely and well?

The research programme is a six year project consisting of: a national survey of older people's repairs and maintenance practices; analysis of databases pertaining to dwelling condition and performance; and community case studies involving condition surveying of older people's houses, and interviews with older people, providers of housing, social and health services for older people and repairs and maintenance service providers. The research then developed and tested a practical initiative to support older people to repair and maintain their dwellings.

Older householders' repairs and maintenance experiences

In New Zealand, national housing condition surveys have shown that the dwellings in which older people (aged 65 and over) live tend to be in better condition than New Zealand dwellings overall. However, older people tend to overstate the positive condition of their dwellings and do not connect dwelling performance with dwelling condition. Also, older people are prone to under-investing in their repairs and maintenance and to deferring repairs and maintenance (Saville-Smith 2005a; Clark et al, 2000; Clark et al 2005). This pattern of deferring repairs and maintenance is also characteristic of home owners under 65 years (Saville-Smith 2005a). But one key difference in home repairs and maintenance practices of older householders compared to those under 65, is in investment repairs and maintenance. While the under-investment in repairs and maintenance by younger age groups decreased between 1999 and 2004, among dwellings owned by older people, the value of unmet repairs and maintenance increased by 5.9 percent. In contrast, the value of unmet repairs and maintenance dropped for younger people's dwellings between 1999 and 2004 by 23.1 percent.

In both the national housing condition surveys and this research programme, the main reason given by older people for delaying or deferring maintenance work was expense. This concurs with British research, which shows that the costs of repairs and maintenance are unaffordable for some groups, including older owner-occupiers (Leather 2000). But research also shows that failure to address repairs and maintenance is not simply due to unaffordability. Older owner-occupiers misread the

outcomes of dwelling problems and miscalculate how long repair work can be delayed. Often they do not distinguish between essential and cosmetic work on their dwellings. They also tend to be reactive to presenting problems rather than systematic in preventative maintenance. Older people are least likely to assess the condition of their house accurately (Leather, 2000; Saville-Smith 2005b).

Even though New Zealand national house condition surveys have shown that the majority of older people's dwellings tend to be in good condition, on some house components, older people's dwellings were in persistently worse condition than those same components in the dwellings of younger people. Older people's dwellings showed inferior ceiling insulation relative to the dwellings of younger people in the 1999 and 2004 surveys. This is an important deficit, as ceiling insulation is critical to energy efficiency and ensuring thermal comfort. Other dwelling components in older people's homes that showed a lower average component condition included windows, roof claddings and steps/ramps. These components pose problems for older people's health and safety. Deteriorated roof cladding and windows contribute to poor thermal performance in a dwelling. Deteriorated steps and ramps pose potential fall and injury risks to older people, as well as limiting their movement in and out of their homes.

The 2008 national survey

As part of this research programme, a national survey of older people's house performance and their repairs and maintenance practices was conducted (Saville-Smith, James and Fraser 2008). The 2008 survey aimed for a larger, more representative sample of the older population than was provided by the earlier national repairs and maintenance surveys, where older people were a sub-set of the samples. The target population for the 2008 survey was New Zealanders aged 65 years or older living in a private residential dwelling. A simple random sample of 1,600 older people was selected and interviews undertaken by telephone. The survey has a margin of error of ± 2.5 percent at the 95 percent confidence level. Data was collected using a structured questionnaire of predominantly close-ended questions. The questionnaire was developed by CRESA and used questions similar to those in the previous 2004 national repairs and maintenance survey.

As in previous surveys, the older people in the 2008 survey were confident in the condition and safety of their dwelling. Despite this, there are indicators that many of these dwellings do not perform well. For example, while 88.8 percent of householders reported their dwellings as in *Good* or *Excellent* condition, only half reported that their heating system always keeps them warm in winter. In addition,

34.4 percent of householders reported problems with damp, mould or condensation. Almost a quarter (24.7 percent) reported that they have had slips or falls inside or immediately outside their home. Almost a quarter (24.7 percent) also reported that they have had to make some modifications to their dwelling to allow them to move around their house. These factors together indicate a higher prevalence of poorly designed or maintained homes than older people themselves perceive.

Almost a fifth of survey participants (19.4 percent) reported that they have delayed repairs or maintenance of their dwellings. The primary reason for this was perceived expense, with 55 percent of householders citing this as the primary reason for delays. A further 17.9 percent reported that it was too inconvenient to do repairs or maintenance, while 5.9 percent reported that they were unable to get tradesmen.

Typically older people in the survey relied on the building industry (particularly tradespeople) for information about repairs, maintenance, renovations and modifications. They reported very little engagement with independent and professional assessors either in the building industry or other sectors such as health and accident insurance. Family and friends also made important contributions to information for a considerable proportion of older people around dwelling repairs, maintenance, modifications and renovations. About a quarter of older people reported relying on their own expertise to assess their repairs and maintenance needs.

Case studies

As part of the research programme, case studies were conducted in two Auckland suburbs, Sandringham and Waiheke Island; a South Island district, Marlborough, a small North Island community, Kawerau; and with new settler Chinese communities in Auckland (North Shore and Sandringham) and Hamilton. Interviews were conducted with older people and with providers of services to older people, to find out about older people's repairs and maintenance investment, practices and needs.

The main findings from older householders were:

- A decline in their ability to do routine repairs and maintenance.
- A tendency to defer repairs and maintenance, mainly because of expense, but also because of inconvenience.
- Some did not think that repairs and maintenance were important, or did not want to be bothered with such matters at their time of life.
- Some relied on family members to undertake work or arrange work to be done.

- Difficulties in getting small jobs done, because of tradespeople not wanting to undertake small jobs.
- Difficulties in getting reliable information and advice about products and services. In particular, there were difficulties around:
 - Understanding the scope of the work required.
 - Identifying an appropriate provider
 - Understanding job quotations and pricing.
 - Assessing whether a quality job had been done.
- Issues around trust of service providers and quality of workmanship.

The providers² identified some key factors that they saw affecting the ability of older people to manage their repairs and maintenance:

- The older householder's reluctance to acknowledge that they have repairs and maintenance problems.
- The older householder's reluctance to acknowledge un-met repairs.
- Physical limitations, such as failing sight and hearing that prevent an older person seeing that repairs are needed. Mild dementia and mental health issues were also identified by some providers as limiting the ability of the older householder to perceive that repairs are needed.
- The older householder's lack of energy and capability to do repairs or organise to get a job done.
- The older householder failing to realise the health and safety implications of not doing repairs and maintenance, as well as decline in the dwelling's value.
- The older householder's misperceptions about the actual costs of repairs and maintenance.

Providers noted that some older people are confronted with repairs and maintenance problems more than others. These tend to be older people who live on their own, who are newcomers to the area, who lack family support or who are not well connected to social and friendship networks. Women are more likely to need advice and assistance than men, in part because their spouses often looked after repairs and maintenance matters.

Providers interviewed reported that their clients raised repairs and maintenance issues with them. Some providers said that it was only the occasional client who raised repairs and maintenance issues, while the older people's advocacy

² Providers included older people's advocacy services, older people's social services, older people's health services, home repairs and maintenance services, home insulation services and building retail product suppliers.

organisations, social service providers and insulation providers noted that they receive a lot of enquiries about repairs and maintenance. Some providers also reported that their clients raise concerns about heating their homes, accessing funding for home modifications and obtaining home care services.

According to providers, older clients asked them for information and advice about:

- Recommendations about repairs and maintenance providers.
- Information about financial assistance available for repairs and maintenance, modifications and home help.
- Help with understanding quotations that they have received for a job.
- Advice on whether a job had been done properly.
- Information on the operation and performance of particular products, particularly home heating products.
- Dealing with landlord over repairs and maintenance. Often the older person does not know how to approach their landlord, or they do not like complaining. They want a support person to help them contact the landlord.

The providers identified a number of impacts of un-addressed repairs and maintenance issues on their older clients. Providers identified clear health and safety impacts on older residents due to cold, dampness due to leaks, unsafe features such as steps in poor repair and broken concrete paths, water temperatures set too high, lack of simple aids such as grab rails in the bathroom and toilet, and lack of floor coverings. Both health and social service providers gave examples of older people getting hypothermia due to the coldness of their homes. Those residents sometimes were sent to a rest home for the winter, and in a few instances this temporary move became permanent.

Those working in health services noted that older people affected by asthma and respiratory conditions were especially vulnerable in cold and damp dwellings. Older people with diabetes, arthritis and obesity were impaired in their movement in and around the home, and because of their condition, were especially vulnerable to accidents if their home was in poor repair.

Insulation providers noted that the poor condition of a dwelling could occasionally prevent the dwelling from being insulated. Those providers also noted it was common to come across repairs needing to be done and unsafe situations in older people's houses. One of the insulation providers commented that their workers often came across old wiring in need of repair, roof leaks and water pipes leaking under houses.

All these problems not only posed risks for the workers, but contributed to an unhealthy and unsafe house.

Providers also observed impacts on housing stock if repairs and maintenance are not done. One provider noted the tendency of older home owners to defer smaller jobs, only to have minor problems become major and expensive repairs. Another provider noted the reluctance of older tenants to broach repairs and maintenance issues with their landlord, until forced to when a small issue becomes an urgent problem.

The burden of repairs and ageing in place

This research offers some evidence that the burden of repairs and maintenance does influence some older people to move house, including shifting to higher dependency living situation where repairs and maintenance are managed by others. Some providers reported that the burden of repairs can prompt older people to 'downsize' their large family home and move into a rental dwelling or retirement village. One older people's service provider gave several examples of older widows who were considering a move because they could not afford to maintain their home. Housing providers considered that repairs and maintenance issues were a key factor in older people's decisions to move into their dwellings

One of the main reasons that older people said that they had moved to the house they were currently living in was to get a property that was easier to manage, and safer for them. They wanted to reduce the size of their house and section, live in a house with better physical access, better design or better performance than their previous dwelling. Most of those interviewed were not considering a move in the next few years. However, they said that the main things that would prompt them to move were: declining health, inability to manage the upkeep of house and section, and inability to cope with physical challenges such as stairs or a cold house.

Assistance with home repairs and maintenance was certainly identified by older people as something that would help them stay in their homes. However, such assistance was only one of a wide range of supports that they considered important to help older people to continue to live in their own homes. Other things of importance included: help with housework, gardening and shopping; access to transport and local health services; information about services; mobility aids and home adaptations; companionship and contact with others; personal alarms; eating properly and respite care for a sick spouse.

One of the issues clearly identified in the case studies was the need for better information to assist older people to identify and manage their repairs and maintenance needs. This was the prompt to design the three repairs and maintenance tools. The householder tool was also intended to improve older people's knowledge about their home, house performance and safety. The tool is designed as a 'self-help' approach that most older people can use themselves, or with a little help from friends or relatives.

Describing the tools

Three tools have been developed:

- A householder tool.
- A tool for non-housing service providers.
- A tool for providers owning or managing housing stock for older people or providers delivering repairs and maintenance services to older people.

Key objectives in developing the tools have been to target the information to the different users of the tools, ease of use and clarity. The tools must cater for varying levels of knowledge of dwelling performance and repairs/maintenance, as well as varying skills and abilities to undertake repairs/maintenance. The tools use simple language and are laid out so that the procedures and sequence are easy to follow. For example, because the tools include solutions as well as assessment, there had to be direct links between the problem identification sections and the solutions specific to each problem.

The householder tool

The householder tool is in the form of a printed booklet that consists of a checklist and solutions covering key components inside the dwelling room-by-room, and outside the dwelling. The tool is written in plain language, with step-by-step instructions. Diagrams and pictures illustrate technical terms where required. The tool also encourages older householders to feel confident about assessing their home by explaining that the assessment does not have to be done all at once; the room-by-room check can be done over several days or as time permits. The tool also suggests that they can carry out the assessment with the help of a friend or relative if they want.

The checklist divides the dwelling into seven zones – outside the house, kitchen, bedrooms, laundry, hallways and stairs, lounge/living, and bathrooms/toilets. In addition, a general section covers checks for mould, insulation and fire safety.

Components covered include: outdoor and indoor lighting; pathways; ramps and steps; decks/balconies; roofs; walls; windows; piles; doors and handles; floors and coverings; ceilings; plugs; hot water; and heating.

The tool helps to identify:

- Repairs and maintenance work that needs to be done.
- Safety issues that need to be addressed.
- Who is the best person to do the work, e.g. if there are things that the older householder can do to remedy the situation, or if they need to contact a handy person or tradesperson to do the job. The tool makes explicit the types of jobs, such as electrical and plumbing work, that must be done by a registered tradesperson.

The tool also indicates the priority of a job:

- 1 = very high priority, important to fix as soon as possible.
- 2 = important to address, but only after the top priority jobs have been done.
- 3 = should be considered if you are going to renovate.
- 4 = low priority, good to fix if you can do it easily and can afford it.

If the householder finds something that needs attention, the checklist directs them to the solutions section, which gives suggestions on what to do and who can do the work to resolve the problem. This section also explains why it is a good idea to deal with each particular problem.

Also included in the tool are directions on how to prepare a fire escape plan, based on the New Zealand Fire Service fire escape plan. If the householder finds any maintenance or repairs that need to be done, they can note these on the action sheet that is included. The tool also includes a list of information sources that householders can use to find out more about repairs and maintenance and home safety.

The non-housing service provider tool

The non-housing service provider tool is designed so that local organisations supporting older people can check whether older clients' homes need repairs and maintenance, and if there are safety issues to address.

The content of the service provider tool is the same as the householder tool and it is set out in the same way. The service provider is able to work through the checklist and solutions room-by-room.

Technical tool for housing providers or repairs and maintenance providers

The technical tool is designed to provide a robust set of home diagnostics, reflecting the higher skill level of housing providers and property managers. This tool is the only one that comprises both a hardcopy and an accompanying electronic spreadsheet.

The technical tool allows a more detailed assessment of each of the zones that the home and surroundings are divided into. The tool's assessment process is similar to the other tools, except that no solutions are provided within the hardcopy version. Here, the assessor is required to transfer the information into the accompanying pro-forma electronic spreadsheet. Once the transfer has been completed, the spreadsheet automatically prioritises the work, providing succinct solutions to remedy each issue as well as indicative costing information to carry out the task. In addition, the variables – i.e. the costing information and suggested priorities – can be adjusted or fine-tuned by the user. The electronic spreadsheet thus provides a depth and flexibility to the tool which would not be achievable by the hardcopy alone.

Trialling the tools

Trialling and developing the tools was done in several stages. An early version of the householder tool was trialled by three older people in their own homes. Similarly, an early version of the tool for experienced housing assessors was workshopped by Housing for Humanity staff. All those responses were used to improve the design of the tools for trialling at the charrettes.

The charrettes

A charrette is a mix of presentations, workshop and discussion where participants worked through the tools. The focus of the charrette is on designing the tool. The charrettes asked participants to respond to three questions:

- Does the tool cover all the things it needs to?
- Are the priority labels right?
- Will this tool help older people and their support services address repairs and maintenance issues?

Three charrettes were held in provincial towns of Blenheim, Kawerau and New Zealand's largest city, Auckland, to test the assessment instruments and solutions. The householder and service provider tools were discussed in the Blenheim and Kawerau charrettes that included older people, health and social service providers, repairs and maintenance providers, council staff, church groups and community

organisations such as service clubs, Rural Women, Returned Services Association, Age Concern and Grey Power. After information about the tools was presented, participants divided into small groups of 3-5 to go through the tool, using a home they knew as an example. Then groups reported back to the charrette on their experience with the tool, and any suggestions for improvements.

At the close of the charrette, participants were invited to take a copy of the tool to trial further in their own home. Several people volunteered to distribute copies of the tools for trialling to others, through local organisations and networks. People were also invited through local media to trial the tools. Those who offered to trial the tools were linked to a local coordinator who distributed the tool. Each individual received the tool, an explanation of the research, contact details for the research programme and a consent form. They were asked to return their completed tool and consent form to their coordinator.

In Marlborough, 71 householders tested the householder tool. Six organisations tested the service provider tools in 35 homes. The service provider tools were tested by Presbyterian Support, Supporting Families (mental health services), Accident Compensation Corporation, Nelson Marlborough District Health Board (mental health services for older people), Ngati Rarua Social Services (Maori health provider) and an older person's housing provider. In Kawerau, 42 householders tested the householder tool and the service provider tools were tested by Te Huinga Social Services (a Maori health provider), Disability Resource Centre,

The Auckland charrette had a focus on trialling the technical tool for dwellings with older tenants. Housing providers, property managers and maintenance services attended the charrette. Those taking part included Habitat for Humanity, Vision West, Salvation Army, Community of Refuge Trust, Auckland Council, CCS Disability Action, and Disability Resource Centre. They worked through the tool in the charrette and eight participants agreed to trial the tool on some of their clients' homes.

Further changes were made to the tools in response to the feedback from: the charrettes where some additions and refinements were identified; the over 150 older people who either completed tool booklets themselves or had the service provider tool trialled in their home; and 8 housing providers/property managers who trialled the tool designed for experienced housing assessors.

What the trials found

The analysis of the trial data for the householder and service provider tools is at a preliminary stage. The technical tool is currently still in trial. Under those circumstances any comments about the tools should be treated as indicative only. Nevertheless findings emerge in two categories: First findings about the tool itself, its ease of use and impacts on users. Second, findings about the dwellings to which the tools have been applied and the patterns of repairs and maintenance need that those reveal.

It is too early to comment on the latter. With regard to the former, among both the householders and service providers there is overwhelming support for the tool. The tool is seen as filling a gap and easy to use. Most importantly, there is already evidence householders and service providers not only experience a heightened awareness of issues of dwelling performance, health and safety, but also feel empowered to act on it. Comments about the tool include:

“This is valuable for any homeowner, not just older people”

“Newly built houses are described as low maintenance, but they still need to be looked after”

“It shows householders can improve their homes for less money than they think.”

There has only been one exception to the positive reception to the tools among users. One older person saw the tool as unnecessary, patronising and repetitive. Unnecessary because that individual held the view that the vast majority of older people are in newer homes in already good or better condition. Patronising because it was argued that older people were able to identify the issues in their dwellings and it was young people that were unskilled in this regard. The major barrier to repairs and maintenance were, for this individual, seen as affordability issues. And the householder tool was seen as repetitive because of the structure of the tool which takes people through the dwelling on a room by room basis.

Although exceptional in their vociferous expression, these views can not be dismissed. They are an example, for instance, of the tendency for older people to overstate the condition of their dwellings. Affordability does remain an issue, although these tools and the technical tools do effectively show that many of the repairs and maintenance needs of older people’s dwellings can be addressed at a relatively low cost. Finally, there is an inherent challenge around the structure of these tools which can lead to an appearance of repetition.

We have found that there are broadly two ways of organising these types of tools. The first is around a system or an issue such as the plumbing or the electricity system or the occurrence of mould. The second is an area based approach. In fact, the tools tend to be a hybrid of both approaches but with a strong tendency to the latter – that is, a room by room or area approach. This does lead to some repetition as issues around electrical leads, flooring and so forth tend to be asked in each room.

The choice to take an area approach was prompted by three considerations. Firstly, we believe that this approach would encourage older people and their service providers to actually check the condition of items rather than make generalised assumptions about them. Second we wanted to discourage ‘trading off’ poor conditions in one part of the dwelling with good conditions elsewhere. Third, we wanted householders in particular not to be overwhelmed by either the process or the results of the assessment side of the tool and be encouraged to address issues and take-up solutions. The room-by-room or area approach allows householders to progressively assess the needs in their dwellings if they choose to rather than undertake a whole-house assessment.

While repetition is an issue and we will be looking to reduced that further, it is clear that the considerations that prompted the area approach used in the tool were and remain valid. Indeed, one of the results that emerged from the piloting of the tools and the subsequent waves of testing is the tendency for people to generalise their assessments of the condition of systems in the whole house from observing one part of the system This does undermine people’s ability to diagnose and resolve issues. The current tool mitigates those tendencies.

Conclusion

Good house performance is important for older people’s well-being, and will become more so as in New Zealand we are seeing the older population increase as a proportion of overall population. Between 2010 and 2050, we can expect the proportion of the population aged 65 and over to increase from 12 percent to about one quarter of the population (CRESA and Public Policy & Research 2009).

The changing needs of an older population, including housing needs, must be addressed. Not all older people will be in owner-occupied housing, indeed the falling rate of home ownership suggests that in future more older people will rely on rental accommodation – and in New Zealand private sector rental accommodation has been identified as in worse condition than both owner-occupied and public rental

stock. New Zealand's housing stock is also ageing, with a substantial number of dwellings currently over 50 years old, and the building of dwellings peaking in the 1960s and 1970s. Dwellings built from the 1970s can be expected to dominate New Zealand's housing stock between 2010 and 2050. This raises questions about the suitability and performance of an ageing stock for older people (CRESA and Public Policy & Research 2009). Furthermore, longer life expectancies and increased prevalence of older people with impaired mobility will require housing that is fully accessible and functional for those with disabilities (Saville-Smith, Fraser, and James 2007).

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