



GOOD HOMES FOR GOOD LIVES

Empowering housing decisions as we age

Older People's House Performance and Their Repair and Maintenance Practices: Analysis from a 2008 National Survey of Older People and Existing Datasets

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1. INTRODUCTION

Poorly performing homes and the burden of maintenance and repairs have been identified as major factors in prompting older people to disengage from their communities and shift into higher dependency residential environments. The FRST funded 5-year research programme *Ageing in Place: Empowering Older People to Repair and Maintain Safe and Comfortable Houses in their Communities*, is directed to optimising New Zealanders' ability to age positively as valued, integral members of their families and communities by reducing older people's displacement because of poor house condition and performance. The programme will establish the extent to which older people's dwellings are poorly repaired and maintained, and the ways in which older people can be assisted to improve the performance of their dwellings.

This report explores the repairs and maintenance practices of older people in New Zealand and comments on the condition of their dwellings. The analysis uses three datasets. Two of those are existing datasets: the National Repairs and Maintenance Survey 2004, and the 1999 and 2004 BRANZ House Condition Surveys (HCS) respectively. The third dataset has been generated through a national survey undertaken within this research programme.

Overall, that data shows that older people are prone to under-investing in their repairs and maintenance. They tend to overstate the positive condition of their dwellings and do not connect dwelling performance with dwelling condition. The data also shows that 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. Associated with that increase was a decline in the proportion of dwellings occupied by older people that were in Good, or Excellent housing condition.

Under-investment in repairs and maintenance by older people is not unique to New Zealand. The significant increase in the number of older people, combined with older people's vulnerability to cold, damp and falls means that the costs of poorly maintained homes is likely to increase rapidly in the future. In many countries overseas it is recognised that repairs, maintenance and stock up-grade is a significant component of maintaining the national infrastructure. It is also recognised that encouraging and assisting older people to address their repairs and maintenance needs is important if older people are to age in place. In addition to presenting the findings related to older New Zealander's maintenance patterns, this report also provides a brief review of some of the maintenance and repairs initiatives undertaken in the last decade overseas.

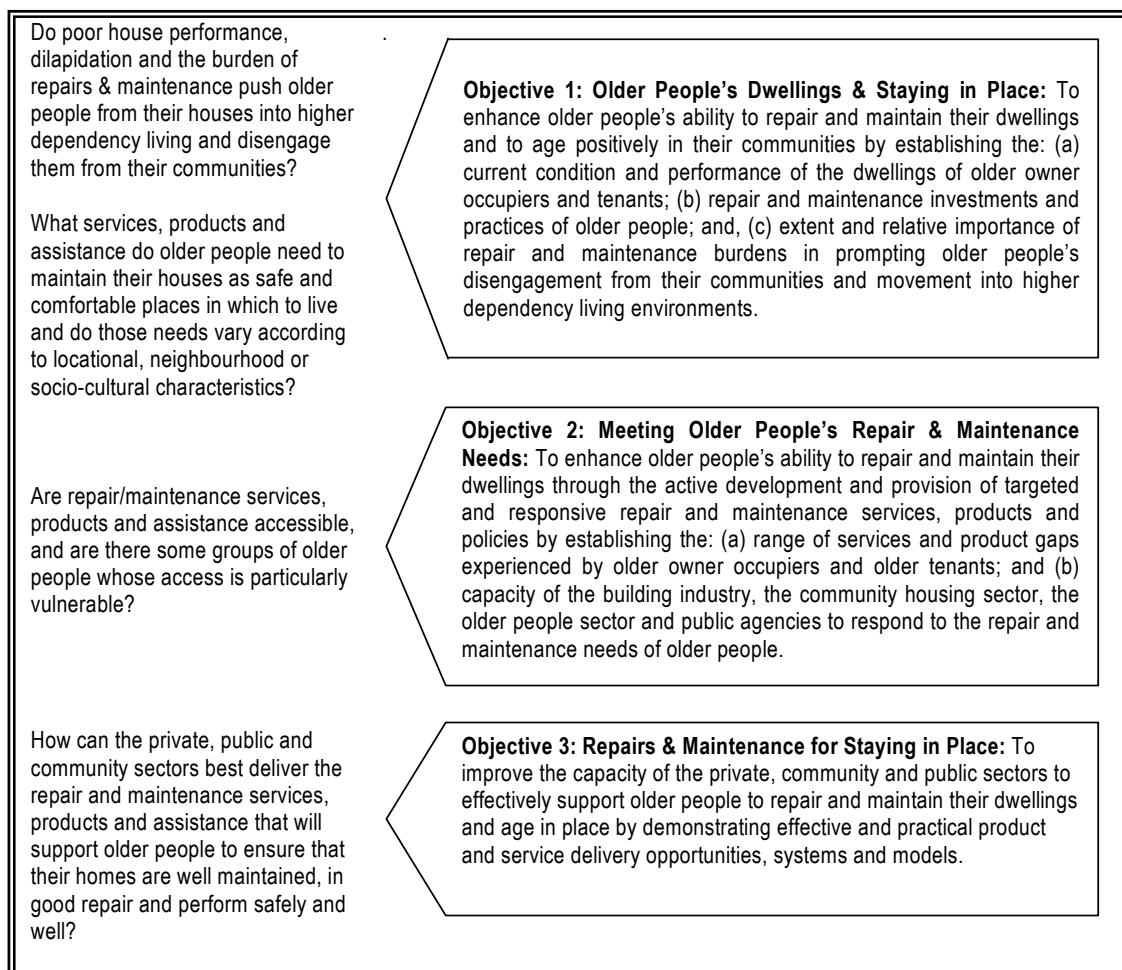
This report is structured as follows:

- Section 2 provides a brief overview of the context of this research and sets out the research programme.
- Section 3 describes the datasets on which the analysis is based.
- Section 4 presents a comparative analysis of the house condition of urban older people's homes based on an analysis of BRANZ's New Zealand House Condition Surveys for 1999 and 2004.
- Section 5 presents data generated by the 2004 National Home Maintenance Survey.
- Section 6 presents the findings of the 2008 National Survey of Older People's Repairs and Maintenance.
- Section 7 identifies some key challenges for New Zealand in relation to repairs and maintenance in the context of an ageing population and New Zealand's poorly performing housing stock. Opportunities for an effective response to those challenges are distilled from a preliminary review of overseas responses over the last decade.

2. THE RESEARCH PROGRAMME AND ITS CONTEXT

The analysis presented in this report is one component of a five-year programme which has three objectives addressing four key questions as set out in Figure 1.

Figure 1: Key Research Questions and Objectives



This research recognises that the individual and externalised costs of poorly maintained, repaired and performing homes are significant. Such dwellings are likely to be cold, uncomfortable, unsafe, and are associated with fuel poverty, ill-health, neighbourhood decline, dependency and negative environmental impacts. Overseas research has found that older people are disproportionately exposed to dwellings in poor condition. Older home owners under-invest in repairs and maintenance and older tenants have difficulty in getting their rental dwellings properly maintained. Older people on low incomes, older people who are new settlers or of an ethnic minority, or older people living in rural areas, are most at risk of living in dilapidated dwellings and under-investing in repairs.¹ Older people are not resilient in houses that are poorly repaired, cold, and expensive to run. They become unhealthy, stressed and at risk of injury. 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.²

This research programme responds to New Zealand's fragmentary and contradictory research including the 2001 Injury Prevention Survey and the knowledge base on older people's repairs and maintenance practices. To date data have been neither robust through statistical generalisation to the population of older people nor robust through the systematic triangulation of data derived from qualitative and quantitative research. We have knowledge deficits in relation to:

- The levels of financial or other investment made into the repair and maintenance of older people's houses;
 - How repairs/maintenance practices and investment among older people may vary according to neighbourhood characteristics, sex, ethnicity, health status, language facility, tenure, position as a new settler or varies between 'old' older people and 'young' older people;
 - The financial, social, cultural or psychological barriers to older people ensuring that their houses, whether owner-occupied or rental, are maintained; and
 - Whether barriers to repairs and maintenance are exacerbated by service and product provision by the New Zealand construction industry, the practices of landlords, or the way repairs and maintenance are treated in current systems of income and services support for older people in the community.
-
- Overall, the data to date suggest that New Zealand's older people are probably vulnerable to poor house conditions. Their repair/maintenance investments and practices are probably inadequate to keeping their homes safe and comfortable. It is clear that older people using reverse equity schemes, traditionally seen as a

¹ Anderson, G.S., Memeilly, G.S. and I.B. Mekjavic, 1996; Ashe, B., 2004; Bajekal, M., Primatesta, P. and G. Prior, 2003; Breeze, E., Grundy, C., Fletcher, A., Wilkinson, P., Jones, D. and C. Bulpitt, 2002; Clinch, J.P. and J.D. Healy, 2000; Collins, K.J., 1993; Davey, J., V. de Joux., G Nana and M. Arcus, 2004; DETR, 2001; Eurowinter Group, 1997; Friedman, P., 2003; Hartley, A., 2005; Henderson, W., 2002; Hunt, S. and B. Boardman, 1994; Leather, P. and R. Moseley, 2002; Markus, T.A. (ed), 1994; Scottish Executive, 2002; Scottish Executive, 2003; Sustainable Energy Ireland, 2003; Taylor, N. Allsopp, K. and D. Parkes, 1995; Wilkinson, P., Armstrong, B. and M. Landon, 2001.

² Arblaster, L., Conway, J, Foreman, A. and M. Hawtin, 1996; Environmental Epidemiology Unit, 1999; Eurowinter Group, 1997; Hanson, J., 2001; Heywood, F., Oldman, C. and R. Means, 2002; Hopton, J. and S. Hunt, 1996a; Hopton, J. and S. Hunt, 1996b; Joseph Rowntree Foundation, 1998; McCarthy, P., Byrne, D., Harrison, S. and J. Keithley, 1985; OECD, 2003; Scharf, T., Phillipson, C., Kingston, P. and A.E. Smith, 2001; Scharf, T., Phillipson, C., Smith, A.E. and P. Kingston, 2002; Terry, R. and D. Joseph, 1998; Tinker, A., 2003; Wilkinson, P., Armstrong, B. and M. Landon, 2001.

means of funding repairs and maintenance, are not using those funds solely for repairs and maintenance. Dilapidated housing is closely associated with stock age and New Zealand's housing stock is ageing. New Zealand's housing stock has demonstrated problems in relation to low temperatures, excessive tightness, mould, damp and durability.³

3. THE DATASETS & THE NATIONAL SURVEY

This report is based on an analysis of data from:

- BRANZ's New Zealand House Condition Surveys in 1999 and 2004
- CRESA's National Maintenance Survey 2004 commissioned by BRANZ, and
- the 2008 National Survey of Older People's repairs and maintenance practice funded through this programme.

3.1 BRANZ's New Zealand House Condition Surveys

The most comprehensive data on house condition in New Zealand is found in BRANZ's New Zealand House Condition Surveys (HCSs). These surveys were undertaken in 1994/5, 1999 and 2004. Data related to the age of the householders living in the dwellings surveyed was collected in 1999 and 2004. That data provides a unique insight into the house conditions of older people and the burden of required repairs and maintenance to bring those dwellings to an 'as new' condition.

The HCS measures the condition of New Zealanders' houses by assessing the condition of twenty-six building components. Those components are assessed on a scale of 1 to 5. The whole condition of the house or dwelling can also be assessed on that same scale. The House Condition rating scale developed by BRANZ typifies houses according to their average component condition. The rating of the average component condition is as follows:

- Excellent – average component HCScore 4.5-5.0
- Very Good – average component HCScore 4.0-4.4
- Good – average component HCScore 3.5-3.9
- Moderate – average component HCScore 3.0-3.4
- Poor – average component HCScore 2.5-2.9
- Serious – average component HCScore <2.5

Components or dwellings in serious condition need immediate attention and may pose health and/or safety risks.

³ Associate Minister of Health and Minister for Disability Issues, 2002; Clark, S.J., M. Jones and I.C. Page, 2005; Clark, S.J., I.C. Page, A.F. Bennett and S. Bishop, 2000; Davey, J.A. and J. Cornwall, 2003; Davey, J.A. and V. Wilton, 2006; Dwyer, M, Gray, A. and M. Renwick, 2000; Frost, D.B., Auliciems, A. and C. de Freitas, 1992; Housing New Zealand Corporation, 2004; Housing New Zealand Corporation, 2002; Howden-Chapman, P. and N. Wilson, 2000; Howden-Chapman, P., Signal, L. and J. Crane, 1999; Hunn, D., Bond, I., Kernohn, D., 2002; Isaacs, N., L. Amitrano, M. Camilleri, L. French, A. Pollard, K. Saville-Smith and R. Fraser, 2004a; Isaacs, N., L. Amitrano, M. Camilleri, L. French, A. Pollard, K. Saville-Smith, R. Fraser and P. Rossouw, 2004b; Isaacs, N., L. Amitrano, M. Camilleri, A. Pollard, and A. Stoecklein, 2003; Isaacs, N., L. Amitrano, M. Camilleri, A. Pollard, and A. Stoecklein, 2002; Isaacs, N., M. Camilleri, L. French, A. Pollard, K. Saville-Smith, R. Fraser and P. Rossouw, 2005; Isaacs, N. and M. Donn, 1993; Jensen, J. et.al., 2006; Leonard, L., 2003; McPherson, M., Milne, S. and L. Asiasiga, 2003; Minister of Senior Citizens, 2001; Office for Senior Citizens, 2005; Page, I.C., W.R. Sharman and A.F. Bennett, 1995; Povey, D. and U. Harris, 2005; Saville-Smith, K., 2005; Saville-Smith, K., 1999; Saville-Smith, K., and Amey, B., 1999; Saville-Smith, K. and R. Fraser, 2006; Saville-Smith, K. and R. Fraser, 2004; Saville-Smith, K. and D. Thorns, 2001.

At the aggregate level of the dwelling, the distances between successive scores in the overall House Condition Scale are not equal or linear. This is most apparent when considering the average cost of repair to bring a dwelling to an ‘as new’ condition. Table 1 sets out those costs for a 140m² home for a scenario in which a home had all components in each of the scale categories using 2007 prices.

Table 1: Average Repair Cost* for Dwellings with All Components at a Specified House Condition Scale Survey – 2007 Prices

All Component Score	Average Repair Cost \$
HCScore 1	94, 895
HCScore 2	64, 074
HCScore 3	9,850
HCScore 4	1,135
HCScore 5	0

*Cost for 140 sqm house to bring to an ‘as new’ condition.

The HCS is confined to a sample in the main urban conurbations of Auckland, Wellington and Christchurch although some peri-rural dwellings are captured. In 1999 465 dwellings were surveyed with 565 dwellings surveyed in 2004. The dwellings are almost entirely owner-occupied.

3.2 The National Repair and Maintenance Survey

The National Repair and Maintenance Survey 2004 was the second of two national surveys into repair and maintenance undertaken to complement BRANZ’s HCSs. It involved telephone interviews of about twelve minutes with homeowners using a structured closed-end questionnaire. The questionnaire elicited information on owner occupiers’ socio-demographic and housing profiles, their perceptions of their dwelling’s condition, their maintenance and repairs over the twelve months prior to surveying and their intended repairs and maintenance in the next twelve months. The questionnaire largely replicated the questionnaire used in the Homeowner Maintenance Survey undertaken in 1998 and reported in 1999.

A sample was drawn from a list of owner-occupied, detached dwellings purchased from Quotable Value New Zealand (QVNew Zealand). That data was cleaned to remove names and addresses associated with rental accommodation or semi-detached and multiple unit dwellings. Each address was matched to a telephone number. CRESA commissioned NRB to randomly select owner occupiers from this set of 2,462 contacts. Prior to interviewing the occupier had to own or part-own *and* occupy the target dwelling. The contact had to agree to a BRANZ inspection of their house in addition to the telephone interview. A 51.9 percent response rate was achieved. The resultant respondent sample consisted of 611 houses. The local and regional distribution of that sample is presented in Table 2.

Table 2: Sample Size by Region and Local Authorities – National Repair & Maintenance Survey 2004

Region/Locality	Sample Population	
	%	Houses
Auckland Region	55.6	340
▪ Auckland City	23.7	145
▪ Manukau City	15.9	97
▪ Rodney District	4.9	30
▪ Waitakere City	11.1	68
Wellington Region	17.8	109
▪ Wellington City	11.9	73
▪ Upper Hutt City	2.6	16
▪ Kapiti Coast District	3.3	20
Christchurch Region	26.5	162
▪ Christchurch City	21.6	132
▪ Waimakariri District	2.5	15
▪ Selwyn District	2.5	15
Total	100	611

Table 3 compares the sample profile to the national census data for 2001, which shows that the sample was broadly representative albeit with an under-representation of single person households and an over-representation of households with four people. The respondents' higher personal incomes are consistent with the national experience of homeownership households. The mortgage status of the sample population is very similar to the national population of homeowners.

Table 3: Household Parameters of National Repairs & Maintenance Survey 2004 Sample Compared to the 2001 Census

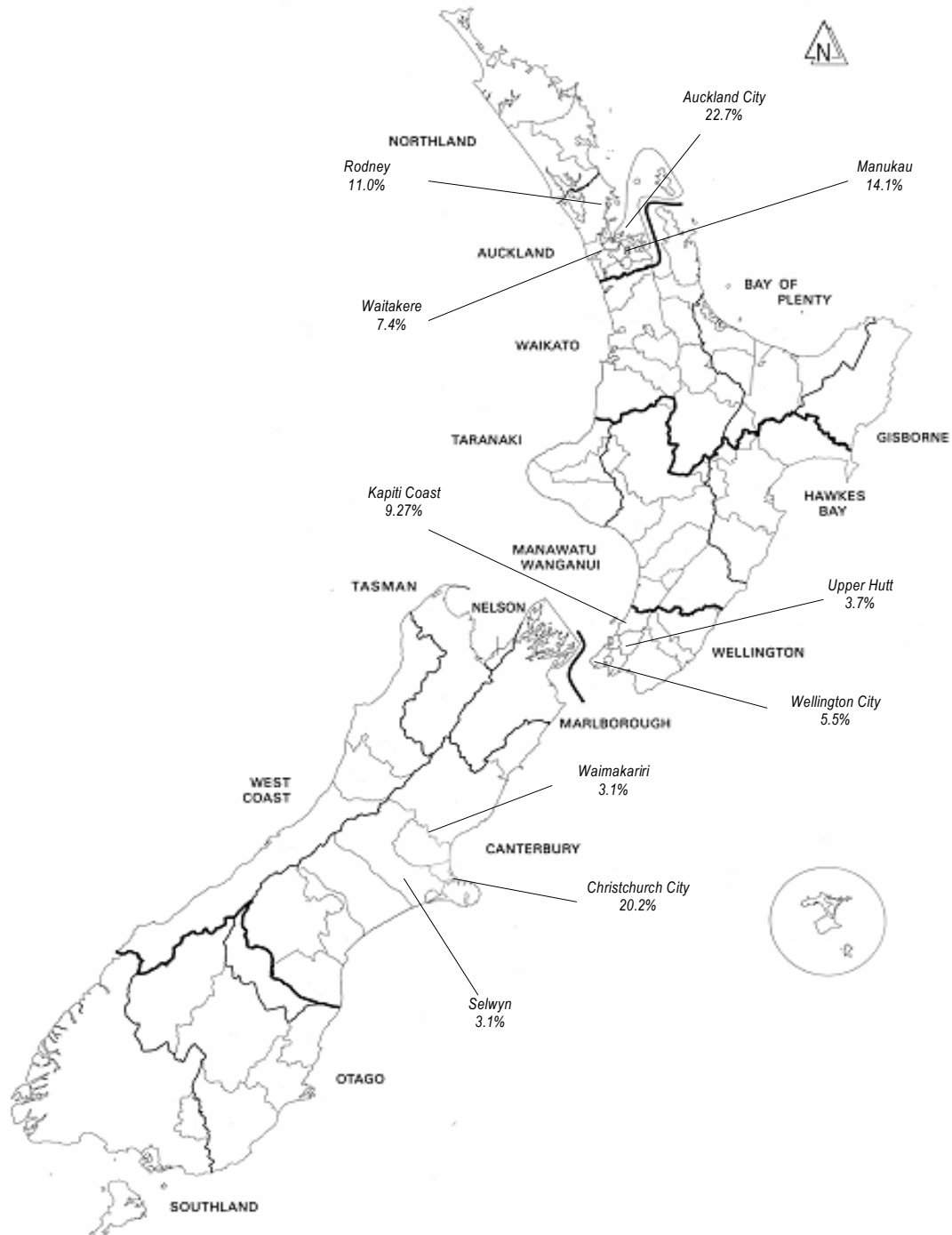
Characteristics of Home Owning Households	Sample Profile		National Profile Census 2001	
	Households	%	Households	%
Number of Household Members				
▪ 1 person	83	13.6	307,935	22.9
▪ 2 people	228	37.4	452,583	33.7
▪ 3 people	83	13.6	221,883	16.5
▪ 4 people	142	23.3	200,997	15.0
▪ 5 people	46	7.6	99,402	7.4
▪ 6 people	16	2.6	37,359	2.8
▪ 7 people	4	0.7	13,032	1.0
▪ 8 or more	7	1.2	11,082	0.8
▪ Total	609	100	1,344,273	100.1
Mortgage Status				
▪ With a Mortgage	307	50.6	443,274	51.7
▪ Without a Mortgage	300	49.4	413,550	48.3
▪ Total	607	100	856,824	100

There were a substantial number (163) of older people participating in the National Repair & Maintenance Survey 2004. The vast majority of those older people (92.6 percent) describe themselves as retired. Well over half (60.1 percent) live with partners, but a substantial proportion (36.2 percent) live alone. In most cases (74.5 percent), those living with partners have partners who are also retired.

The geographical distribution of the participants in the 2004 National Repair and Maintenance Survey was determined by BRANZ's national house condition surveying requirements. Those were concentrated in New Zealand's main urban centres. As a consequence, older people participating in the National Repair and

Maintenance Survey are also concentrated in New Zealand's main urban regions. The distribution of those older people by local authority area is illustrated in Figure 2.

Figure 2: Distribution of Older People Participating in the National Repairs and Maintenance Survey 2004 by Local Authority



Not surprisingly, all the older people received National Superannuation payments. But while the largest set of older people (26.9 percent), report their 2004 household incomes to fall within the \$20,001 to \$30,000 range, there was a spread of household incomes that suggested a considerable number of these households had incomes from sources in addition to National Superannuation. As Table 4 shows, almost a quarter (22.3 percent) of the households had incomes in excess of \$40,000.

Table 4: Summary of the Socio-demographics of Older People in the National Repair & Maintenance Survey 2004

Socio-demographic Characteristics	Older Home Owners	%
Sex (n=163)		
▪ Female	68	41.7
▪ Male	95	58.3
Living with (n=162):	98	60.5
▪ Partners	16	9.9
▪ Children	59	36.4
▪ Live Alone	3	1.9
▪ Other people	1	0.6
▪ Parents	-	-
▪ Siblings	5	3.1
▪ Other Relatives		
Household Income (n=130)		
▪ \$10,000 or less	2	1.5
▪ \$10,001-\$20,000	43	33.1
▪ \$20,001-\$30,000	38	29.2
▪ \$30,001-\$40,000	18	13.8
▪ \$40,001-\$50,000	10	7.7
▪ \$50,001-\$70,000	9	6.9
▪ \$70,001-\$100,000	5	3.8
▪ Over 100,000	5	3.8
Employment Status (n=163):		
▪ Wage & salary earner	8	4.9
▪ Retired and other non-labourforce participants	151	92.6
▪ Self-employed (with no employees)	2	1.2
▪ Homemaker	1	0.6
▪ Self-employed (with employees)	1	0.6
▪ Not in paid work, seeking employment	-	-
Partner's Employment Status(n=97):		
▪ Wage & salary earner	11	11.3
▪ Retired and other non-labourforce participants	73	75.3
▪ Self-employed (with no employees)	3	3.1
▪ Self-employed (with employees)	3	3.1
▪ Homemaker	7	7.2
▪ Not in paid work, seeking employment	-	-

3.3 National Survey - Older People's Maintenance & Repairs 2008

Data was collected from older New Zealanders through a national telephone survey using a structured questionnaire of predominantly close-ended questions. The questionnaire was developed by CRESA and draws on a number of previous surveys outlined above. Research New Zealand Ltd was commissioned to undertake the telephone interviewing and supply the raw data for analysis.

Target Population, Sampling and Response Rate

The target population for the national 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.

Questionnaire, Survey Implementation and Data Analysis

The survey was designed to gather information on repair and maintenance in the twelve months prior to surveying, house adaptation and house performance as well as respondents' socio-demographic and housing profiles. An initial draft of the questionnaire was developed by CRESA and converted by Research New Zealand Ltd to their Computer-Assisted Telephone Interviewing (CATI) format. The questions selected for the survey were drawn largely from pre-existing survey instruments including the National Repair and Maintenance Survey,⁴ the National Attachment Survey⁵ and the Accessible Housing for Our Future Survey.⁶

Standard questions were used to maximise the potential to undertake comparative analysis and assess possible sample bias in relation to the 2006 Census and other official statistics and datasets. Following the post-out of pre-notification letters, telephone interviewing was undertaken between 11 June and 8 July 2008. The first night of telephone interviewing was used to pilot the questionnaire for length, wording, flow, and question interpretation as well as testing the CATI process. The piloting resulted in a minor change to one question. The final questionnaire consisted of 39 primarily closed-ended questions with some opportunities for more extensive commentary. The questionnaire is presented in Annex A. The closed-ended questions were pre-coded and analysed in SPSS using both univariate analysis of frequencies and cross-tabulations.

Survey Participant Socio-demographics

Almost three-quarters of the survey participants are what might be described as younger older people. That is, they are aged 65-74 years. Table 5 compares the age profile of this sample with the age profile of the New Zealand population aged 65 years or more in the 2006 Census.

⁴ Saville-Smith, K., 2005.

⁵ Saville-Smith, K., 2006.

⁶ Saville-Smith, K., James, B., Fraser, R., Ryan, B. and Travaglia, S., 2007.

Table 5: Age Profile of Older People Participating in the National Survey

Age	Survey Participants		2006 Census	
	Older People	% Older People	Older People	% Older People
65-74 years	1,192	74.6	265,482	53.6
75-84 years	323	20.2	173,454	35.0
85 years or more	82	5.1	56,682	11.4
Total	1,597	100.0	495,618	100.0

* 3 cases missing

The participants overwhelmingly (91.1 percent) identify as New Zealand European (Pakeha). Only 2.4 percent identify as Maori. Table 6 sets out the participants identifying with various ethnicities and compares those with the ethnicity profile of older people from the 2006 Census.

Table 6: Ethnicity of Older and Total New Zealand Population Aged 65 or Older as at the 2006 Census

Ethnic Group	Older People (n=1,599)*		2006 Census Population aged 65 years or older (n=476,787)	
	n	%	n	%
European	1457	91.1	395,523	83.0
Maori	39	2.4	23,127	4.9
Pacific peoples	9	0.6	10,080	2.1
Asian	12	0.8	16,071	3.4
Other	117	7.3	46,206	10.0

* 1 missing case

While almost all (98.8 percent) of participants draw on New Zealand Superannuation or Veterans Pension, over half (59.1 percent) also reported other sources of household income. 42.1 percent of the older people in the survey reported that they or a household member received private superannuation, pensions or annuities. 30.2 percent of older householders received incomes from interest, dividends, rents or other investments. 20.8 percent of the households in which survey participants lived derived income from wages, salaries, commissions or bonuses from an employer. 5.5 percent of older people reported household income from self-employment or a business owned or worked in by the survey participant. A small group of older people (1.8 percent) reported income from other sources including payments from people not living in the household.

The distribution of household income is presented in Table 7. Table 7 shows that 53.2 percent of the older people reported living in households with incomes of \$40,000 or less.

**Table 7: Distribution of Household Income
2008 National Survey – Older People’s Repair & Maintenance & 2006 Census**

Annual Gross Income	Older People	% of Older People	2006 Census Older People	2006 Census Data %
\$10,000 or less	33	2.1	3753	0.8
\$10,001-\$20,000	268	16.8	89,922	20.3
\$20,001-\$30,000	375	23.4	108,162	24.4
\$30,001-\$40,000	174	10.9	51,369	11.6
\$40,001-\$50,000	107	6.7	31,578	7.1
\$50,001-\$70,000	133	8.3	39,801	9.0
\$70,001-\$100,000	79	4.9	25,596	5.8
Over \$100,000	54	3.4	25,935	5.8
Unsure	291	18.2	66,492	15.0
Refused	86	5.4		
Total	1,600	100.0	452,940	99.8

* 1 missing case

As Table 8 shows there is an association between household income and household size. Among one person households over three-quarters (75.5 percent) of household incomes are \$30,000 or less. Among two-person households, however, less than half (49.9 percent) fall into that category. In households with four or more members, only about a third (32 percent) have household incomes of \$30,000 or less.

**Table 8: Annual Household Income by Household Size
2008 National Survey – Older People’s Repair & Maintenance**

Household Income	Household Size							
	1-person		2-people		3-people		4 or more people	
	n	%	n	%	n	%	n	%
\$10,000 or less	11	3.4	19	2.3	3	4.8	0	0.0
\$10,001-\$20,000	141	44.2	118	14.5	7	11.3	2	8.0
\$20,001-\$30,000	89	27.9	270	33.1	9	14.5	6	24.0
\$30,001-\$40,000	31	9.7	126	15.5	11	17.8	6	24.0
\$40,001-\$50,000	18	5.6	77	9.4	9	14.5	3	12.0
\$50,001-\$70,000	17	5.3	100	12.3	12	19.4	3	12.0
\$70,001-\$100,000	7	2.2	65	8.0	5	8.1	2	8.0
Over \$100,000	5	1.6	40	4.9	6	9.7	3	12.0
Total	319	99.9	815	100	62	100.1	25	100

The association between household size and household income is important because the vast majority of the older people live in small households. Over a quarter (27.6) percent of participants in the survey live in one-person households while a further 65.4 percent live in two-person households. The majority of participants (78.0 percent) live in households of older people – either by themselves or as a couple (Table 9).

**Table 9: Household Size by Age of Household Members
2008 National Survey – Older People’s Repair & Maintenance**

Household Size	All Household Members Aged 65 Years or More		One or More Household Members Less than 65 years		Total Older People	
	n	%	n	%	n	%
1 - person	443	100.0	0	0.0	443	100.0
2 - people	807	77.1	240	22.9	1047	100.0
3 - people	5	6.3	74	93.7	79	100.0
4 or more people	0	0.0	33	100.0	33	100.0

Compared to the national population, the survey participants tend to be somewhat over-represented among the couples with no children and slightly under-represented among one-person households. There is also slight under-presentation of the 'minor' household composition categories (Table 10).

Table 10: Household Composition by 2008 National Survey Participants and Total New Zealand Population Aged 65 or Older as at the 2006 Census

Household Composition	Survey Participants		2006 Census Population aged 65 years or older	
	n	%	n	%
One person only	439	27.5	137,541	31.1
Couple with no child(ren)	966	60.4	220,065	49.7
Couple with child(ren)	80	5.0	21,114	4.8
Couple and other adult(s) but no children	40	2.5	9,369	2.1
Couple with child(ren) and other adult(s)	10	0.6	8,535	1.9
One parent with child(ren)	28	1.8	15,084	3.4
One parent with child(ren) and other adult(s)	8	0.5	5,385	1.2
Two or more families (with or without others)	4	0.3	13,746	3.1
Other multi person household	24	1.5	11,901	2.7
Total	1,599	100.1	442,740	100

* 1 missing case

4. BRANZ HCS & OLDER PEOPLE’S HOUSES 1999 & 2004

According to BRANZ's HCS data, the dwellings in which older people live tend to be skewed towards dwellings in better condition. In 1999, 11 percent of the dwellings occupied by younger householders (aged under 65 years) were in a 'Poor' or 'Serious' condition (Score 2.9 or less). By way of contrast, only 3.9 percent of the older householders lived in dwellings in similar conditions. Similarly, in 1999 41.6 percent of dwellings occupied by older people have a condition score of 4 or more placing those dwellings in the 'Very Good' or 'Excellent' condition categories. This was slightly in excess of the 40.2 percent of younger householders in dwellings in those conditions. Table 11 shows a less pronounced skew in 2004.

Table 11: Distribution of Dwelling Average Conditions by Age of Householder – BRANZ HCS 1999 and 2004

Average Condition	2004 All Houses		2004 Older Householder's Houses		2004 Younger Householder's Houses	
	Number	Percent	Number	Percent	Number	Percent
< 2.5	1	0.2	0	0.0	1	0.2
2.5-2.9	16	2.8	5	3.5	11	2.7
3.0-3.49	82	14.5	19	13.3	62	15.2
3.5-3.99	207	36.6	53	37.1	147	36.0
4.0-4.49	164	29.0	42	29.4	119	29.2
4.5-5.00	95	16.8	24	16.8	68	16.7
Total	565	100	143	100	408	100
Average Condition	1999 All Houses		1999 Older People's Houses		1999 Younger People's Houses	
	Number	Percent	Number	Percent	Number	Percent
< 2.5	11	2.4	0	0.0	11	2.8
2.5-2.9	35	7.5	3	3.9	32	8.2
3.0-3.49	91	19.6	12	15.6	79	20.4
3.5-3.99	140	30.1	30	39.0	110	28.4
4.0-4.49	110	23.7	18	23.4	92	23.7
4.5-5.00	78	16.8	14	18.2	64	16.5
Total	465	100	77	100	388	100

On some house components, older people's dwellings are in persistently less good condition than those components in the dwellings of younger people. It must be of some concern that older people's dwellings showed inferior ceiling insulation relative to the dwellings of younger people in the 1999 and 2004 surveys. Ceiling insulation is critical to energy efficiency and ensuring thermal comfort.

In the 2004 survey a number of other components also showed a lower average component condition than younger people's dwellings. Those components are:

- fasteners
- steps/ramps
- windows
- carport
- roof cladding
- kitchen linings
- kitchen joinery
- stove
- laundry linings
- laundry fittings
- bedroom linings.

Most of those components were still, however, within the *Good* range.

Nevertheless there are two areas of concern here. Firstly, some of these components if they deteriorate are particularly problematic for older people. It has already been noted that poor ceiling insulation must be seen as problematic for a population group that is particularly vulnerable to cold indoor air temperatures. Deteriorated roof cladding and windows will also 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 second area of concern is that the lower average scores for older householders on these components is evident despite older householders being clustered in newer houses. The 2004 BRANZ HCS found that only 10.1 percent of dwellings occupied by older householders were built prior to 1940. This compared to 20.4 percent of younger householders living in dwellings built in that period. Similarly, 32.4 percent of the older householders lived in dwellings built after 1979 compared to 30.5 percent of younger householders (Table 12).

Table 12: Age of Dwellings by Age of Householder – BRANZ HCS 1999 and 2004

Year Built	1999 Older Householders		1999 Younger Householders		2004 Older Householders		2004 Younger Householders	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Pre 1900	1	1.3	7	1.8	0	0.0	0	0.0
1900-1939	16	21.1	114	29.5	14	10.1	79	20.4
1940-1959	27	35.5	75	19.4	31	22.3	61	15.7
1960-1979	21	27.6	136	35.2	49	35.3	130	33.5
1980-1999	11	14.5	54	14.0	37	26.6	91	23.5
2000 on	0	0.0	0	0.0	8	5.8	27	7.0
Total	76	100.0	386	100.0	139	100.0	388	100.0

In 1999, the burden of repairs and maintenance investment to bring dwellings to an ‘as new’ condition fell firmly on younger householders. The average cost for younger householders was \$9,214 compared to \$5,755 average cost for older householders. By 2004, however, that gap had closed considerably. The average cost for younger householders in 2004 to bring their dwellings to ‘as new’ condition was \$7,081. That compares to \$6,095 for older householders.

Two shifts are evident in relation to the condition of the New Zealand stock between 1999 and 2004. Firstly, as Table 13 shows, the stock became newer. Secondly, the average cost of repairs to bring the stock to ‘as new’ reduced. There are signs, however, that older people have not benefited to the same extent from those stock improvements.

Table 13: Stock Age in 1999 and 2004

Year Built	Number of Dwellings		Percent of Dwellings	
	1999	2004	1999	2004
Pre-1900	8	0	1.7	0
1900-1939	130	97	28.2	18.3
1940-1959	102	92	22.1	17.4
1960-1979	156	179	33.8	33.8
1980-1999	65	128	14.1	24.2
2000 on	0	33	0	6.2

It has already been noted that 30.1 percent of older people in the 2004 National Repairs and Maintenance Survey report that the condition of their dwelling had deteriorated since acquisition. This is consistent with the BRANZ HCS which shows that the average overall component condition for older people's dwellings improved only slightly between 1999 and 2004 from 3.91 to 3.97. This was a substantially

smaller shift than for the overall average component condition for younger householders. For younger householders, the average component score improved from 3.78 in 1999 to 4.01 in 2004.

Perhaps more importantly, older householder's exposure to repairs and maintenance costs increased between 1999 and 2004 by \$340 from \$5,755 to \$6,095. This indicates persistent under-investment in repairs, maintenance and renovations in the older age group. It also may suggest, given the shift in the age distribution of the dwellings in which older people live, that older people may not be aware of the repair and maintenance needs of newer dwellings. Certainly in comparison to younger householders, older householders are simply not keeping up with repairs and maintenance.

Unmet repairs and maintenance costs for older householders' dwellings increased by 5.9 percent between 1999 and 2004. In contrast, the value of unmet repairs and maintenance dropped for younger people's dwellings between 1999 and 2004 by 23.1 percent. The average cost of bringing to 'as new' the dwellings of younger householders in 1999 was \$9,214. By 2004, that average cost fell by \$2,133 to \$7,081.

5. THE NATIONAL HOME MAINTENANCE & REPAIR SURVEY 2004

Of the 163 older participants in the National Repairs and Maintenance Survey 2004, 82.2 percent had lived in their current address more than seven years. No older people had moved in the year prior to surveying and only small proportions of older people have been in their current dwellings for less than five years. Only 2.5 percent of older participants reported that they intended to move in the next twelve months (Table 14).

Table 14: Homeownership Characteristics and Intent of Older Owner Occupiers – National Repairs and Maintenance Survey 2004

Home Ownership Characteristics	Older Home Owners	%
Residence in Current House (n =163):		
▪ Less than 1 year	0	0.0
▪ 1 – 4 years	15	9.2
▪ 5 – 7 years	14	8.6
▪ More than 7 years	134	82.2
Intention to sell in next 12 months (n =163):		
▪ Yes	4	2.5
▪ No	146	89.6
▪ Unsure	13	8.0

There was a high degree of confidence expressed among these older people in relation to the safety and protection provided by their homes. That confidence did show some variation according to the nature of the risk. In relation to flooding, 85.9 percent of older people reported that they always felt safe from flooding. 81.6 percent of older people reported always feeling safe from fire in their homes although 17.2 percent had no working smoke alarm. Even among those that had smoke alarms, the majority of older people also reported that they had checked their smoke detector only once in the last six months and 16.3 percent had not checked at all. A lower proportion was as confident in relation to earthquakes, with 68.1 percent of the older participants in the

National Repairs and Maintenance Survey reporting that they always felt safe in their homes from earthquakes.

Safety from burglary or attack showed the lowest proportion (36.8 percent) of older people always feeling safe in their homes. However, the extent of perceived vulnerability among the older participants in the National Repairs and Maintenance Survey should not be overstated. In addition to the 36.8 percent reporting that they always felt safe from burglary or attack within their homes, a further 50.9 percent reported that they usually felt safe from burglary or attack.

Associated with this strong sense of confidence in their houses the older participants in the 2004 National Repairs and Maintenance Survey also regarded the condition of their houses very positively. Only three out of the 163 householders aged 65 years or older described their house condition as *Poor* or *Very Poor*. There is a statistically significant association between householder age and the perception of the current condition of dwellings. As Table 15 shows, 83.5 percent of homeowners aged 65 years and more assess the condition of their house as currently in *Good* or *Excellent* condition compared to 77.8 percent of homeowners aged between 25-49 years and 75.9 percent of those aged 50-64 years.

Table 15: Assessment of the Current Condition by Owners' Age – National Repairs and Maintenance Survey 2004

Current Condition	25-49 Years		50-64 Years		65 Yrs & Over	
	Home-owner	%	Home-owner	%	Home-owner	%
Excellent	49	19.0	58	30.4	63	38.7
Good	151	58.8	87	45.5	73	44.8
Average	50	19.5	41	21.5	24	14.7
Poor	7	2.7	5	2.6	2	1.2
Very Poor	0	0.0	0	0.0	1	0.6
Total	257	100	191	100	163	100

Over a quarter (26.4 percent) of older people reported that the condition of their dwelling had improved from the time that they first acquired it. However, a higher proportion, almost a third, reported that the condition of their house had deteriorated over that time (Table 16).

Table 16: Older Owners' Assessment of the Condition of their House Over Occupation – National Repairs and Maintenance Survey 2004

Dwelling Condition Over Time of Owner Occupation	Older Owners	%
Improved	43	26.4
Stayed the Same	71	43.6
Deteriorated	49	30.1

This deterioration appears to be associated with both the ageing of the dwelling and limited repairs and maintenance among older people. Of all the older people participating in the National Repairs and Maintenance Survey, under half (42.3 percent) reported undertaking some sort of painting, repairs or maintenance on their homes in the previous six months. That is, 69 houses were subject to maintenance or repairs.

The components of a house most subject to some sort of maintenance activity over the twelve months prior to the survey were outside walls, windows, and roofs (Table 17). Table 18 shows that painting was the main type of maintenance activity performed around the house.

Table 17: Home Components Subject to Older Owners' Maintenance – National Repairs and Maintenance Survey 2004

Maintenance Component	Responses	% of Houses (n=69)
Outside walls	25	36.2
Windows	22	31.9
Roof	18	26.1
Bathroom walls/surfaces	15	21.7
Other	14	20.3
Bedroom walls/surfaces	13	18.8
Outside doors	13	18.8
Living-room walls/surfaces	12	17.4
Kitchen walls/surfaces	12	17.4
Guttering	12	17.4
Kitchen fittings	9	13.0
Bathroom fittings	9	13.0
Foundation piles	1	1.4

Multiple Response

Older people's patterns of repairs and maintenance engagement are somewhat different to that shown by owner occupiers in general. Older home owners are less likely than owners in general to use their own labour to undertake repairs and maintenance (Table 19). Of the 69 older people's houses worked on in the last twelve months, 40 (58 percent) respondents reported they did maintenance work.

Table 18: Types of Home Maintenance Performed in the Previous 12 Months by Older Owners – National Repairs and Maintenance Survey 2004

Maintenance Component	Paint		Repair		Replace	
	Responses	% Home-owners	Responses	% Home-owners	Responses	% Home-owners
Outside walls	23	14.4	1	0.6	2	1.2
Windows	14	8.6	5	3.1	4	2.5
Bedroom walls/surfaces	11	6.7	1	0.6	3	1.8
Roof	9	5.5	7	4.3	4	2.5
Bathroom walls/surfaces	9	5.5	2	1.2	7	4.3
Kitchen walls/surfaces	9	5.5	2	1.2	2	1.2
Living-room walls/surfaces	8	4.9	1	0.6	5	3.1
Other	8	4.9	5	3.1	5	3.1
Outside doors	8	4.9	1	0.6	4	2.5
Kitchen fittings	6	3.7	0	-	3	1.8
Bathroom fittings	5	3.1	1	0.6	6	3.7
Guttering	4	2.5	5	3.1	3	1.8
Foundation piles	1	0.6	0	-	0	-

Multiple Response

Table 19: Who Undertakes Maintenance Work by Older Owners and All Respondents - National Repairs and Maintenance Survey 2004

Maintenance Worker	Older Homeowners (n=69)		All Homeowners (n=322)	
	Responses	% Homeowners	Responses	% Homeowners
Respondent homeowner	40	58.0	208	64.5
Paid tradesmen	41	59.4	174	54.0
Other family members living in the house	11	18.6	84	26.1
Other – paid	4	5.8	16	4.9
Other – unpaid	1	1.4	15	4.7

Multiple Response

A substantial proportion (58.9 percent) of older homeowners made no expenditure on home maintenance or repairs in the twelve months prior to surveying. Around a fifth of older homeowners reported expenditures of \$1-\$650 in that period (Table 20).

Table 20: Maintenance Expenditure in the Last 12 Months National Repairs and Maintenance Survey 2004

Expenditure	Homeowners	%
\$0	96	58.9
\$1 - \$650	33	20.2
\$651 - \$1,300	8	4.9
\$1,301 - \$2,600	7	4.3
Over \$2,600	18	11.0
Don't know	1	0.6
Total	163	99.9

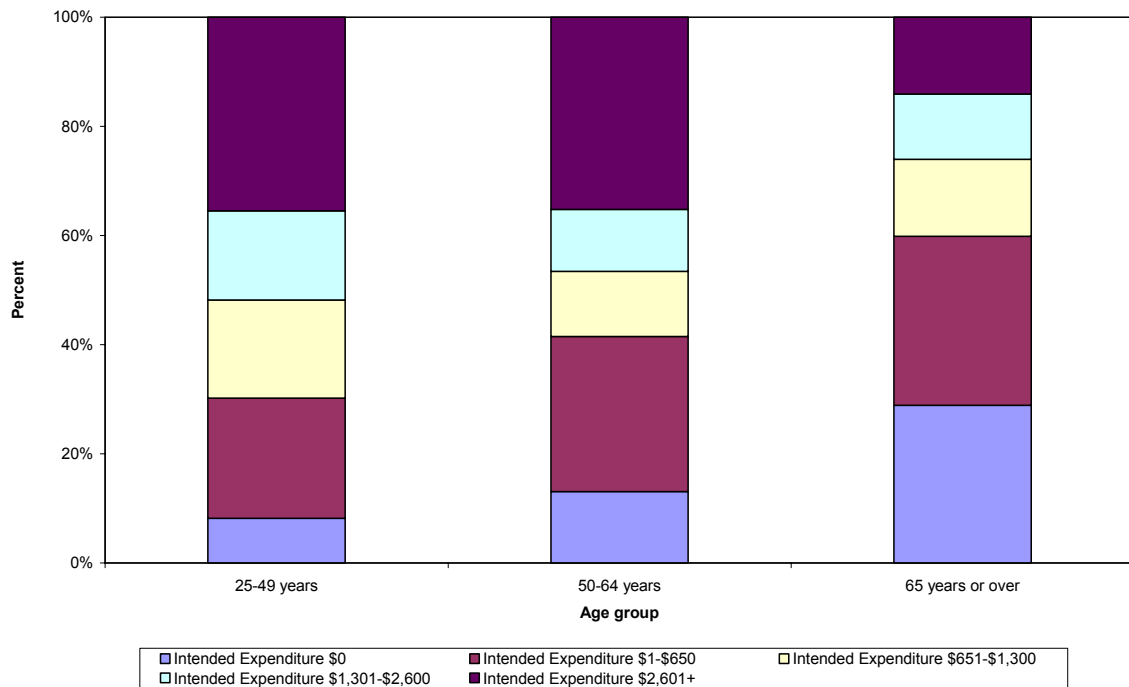
There are also substantial proportions of older home owners in the 2004 National Repairs and Maintenance Survey that intended to make only minimal investment in repairs and maintenance in the twelve months after surveying. Some 52.2 percent intended to spend \$650 or less. That includes 25.2 percent of older home owners with the intention of making no expenditure (Table 21).

Table 21: Intended Maintenance Expenditure in the next 12 Months National Repairs and Maintenance Survey 2004

Maintenance Expenditure	Households	%
\$0	41	25.2
\$1 - \$650	44	27.0
\$651 - \$1,300	20	12.3
\$1,301 - \$2,600	17	10.4
Over \$2,600	20	12.3
Don't Know	21	12.9
Total	163	100.1

Overall, older peoples' spending intentions are lower than the spending intentions of other age groups (Figure 3).

**Figure 3: Age and Intended Maintenance Expenditure
National Repairs and Maintenance Survey 2004**



A third of older homeowners (54) reported that they had delayed or deferred some or all of their home maintenance in the twelve months prior to the survey. The main reason given by older people for delaying or deferring maintenance work was expense. This was cited by 25.9 percent of older people (Table 22).

**Table 22: Main Reason for Deferring Maintenance in the Last 12 Months
National Repairs and Maintenance Survey 2004**

Main Reason for Delay	Homeowners	%
Too expensive or lack of funds	14	25.9
Inconvenient	12	22.2
Maintenance not serious	10	18.5
Family crises or health	5	9.3
Other reasons not specified	5	9.3
The weather	3	5.6
Repairs difficult to get at	2	3.7
Wanted better information	1	1.9
'Laziness'	1	1.9
Tradesmen unavailable or didn't come	1	1.9
Total	54	100.2

Over a fifth of older homeowners had delayed or deferred their maintenance because it was inconvenient. Nineteen percent of older homeowners who had delayed/deferred some or all of their maintenance considered that the deferred maintenance work was not serious.

Analysis of data from all homeowners in the national survey found that while deferral of maintenance was not statistically significantly associated with income, it was statistically significantly associated with homeowner age. Table 23 sets out the deferral and non-deferral behaviour of each age group. Older people are less likely to report deferring maintenance than other age groups.

**Table 23: Age of Homeowner by Deferred Maintenance
National Repairs and Maintenance Survey 2004**

Homeowners Age	Deferrers		Non-Deferrers		All Homeowners
	Homeowners	%	Homeowners	%	
25-49 years	148	57.6	109	42.4	257
50-64 years	91	47.6	100	52.4	191
65 years or more	54	33.1	109	66.9	163

Older people in 2004 were, however, confident in their own ability to assess the maintenance needs of their houses, although less confident than other homeowners. The 2004 survey found that over half (51.4 percent) of homeowners believed that they could identify repair and maintenance needs through their own observation, but only 41.7 percent of older people reported that their own observation was adequate. Despite that, only 1.8 percent of older people sought advice from tradesmen and only 0.6 percent got assistance from a building inspector.

Over two-thirds of the older homeowners relied on their own experience and knowledge to determine appropriate repairs and maintenance. Around half (49.7 percent) sought information from trades people. There are strongly gendered patterns in relation to getting information about repairs and maintenance. Older women are less likely to be confident in their own knowledge or skills. They are more likely to seek information from family, friends and trades people (Table 24).

**Table 24: Source of Information on Repairs and Maintenance by Sex
National Repairs and Maintenance Survey 2004**

Information Source	Males (n=95)		Females (n=68)		Total (n=163)	
	n	%	n	%	n	%
Own experience and knowledge suffices	80	84.2	31	45.6	111	68.1
Advice from trades people	41	43.2	40	58.8	81	49.7
Advice from building suppliers	25	26.3	12	17.6	37	22.7
Family	24	25.3	29	42.6	53	32.5
Friends	24	25.3	23	33.8	47	28.8
Books, magazines and newspapers	19	20.0	16	23.5	35	21.5
BRANZ	5	5.3	2	2.9	7	4.3
Internet	4	4.2	1	1.5	5	3.1
Advice through building inspection	2	2.1	2	2.9	4	2.5

Multiple Response

6. SURVEY OF OLDER PEOPLE'S REPAIR & MAINTENANCE

The analysis of the datasets reported in previous sections needs to be treated with care. Older people are only a subset of the samples of these datasets, consequently their representational power is limited. The National Repairs and Maintenance Survey included 163 old people. The 1999 BRANZ HCS included 77 dwellings with householders 65 years or older and the 2004 had 143 dwellings with older householders. Small sample sizes such as these constrain the confidence with which the data on older people generated by those surveys can be generalised to older householders. It also prevents any robust analysis of differences among older people. For that reason, a more extensive national survey of a sample of 1600 older people's repairs and maintenance practices has been undertaken.

The results of that survey show that the dwellings in which older householders live are dominated by detached single-storey dwellings (66.3 percent), with over a fifth (22.4 percent) of dwellings with more than one storey (Table 25).

**Table 25: Older People's Dwelling Types
2008 National Survey – Older People's Repair & Maintenance**

Dwelling Type	Dwellings	%
Detached single-storey	1,060	66.3
Detached with more than one storey	359	22.4
Semi-detached single-storey	66	4.1
Semi-detached with more than one storey	24	1.5
Terrace	11	0.7
Purpose built flat	32	2.0
Flat in a converted building	19	1.2
Apartment in an apartment block with more than two floors	18	1.1
Other	11	0.7
Total	1,600	100

A considerable proportion (41.2 percent) of the dwellings were built in 1978 or later, that is, after the introduction of building regulations requiring insulation. Most dwellings are owned mortgage-free, although 10.3 percent of older householders reported having a mortgage. Seventy-three householders (4.6 percent) were tenants and 17 (1.1 percent) had other tenure arrangements. Around a quarter (24.7 percent) of the dwellings have some sort of modifications to improve accessibility. Table 26 details accessibility features inside and outside older people's dwellings across the full sample of older people.

**Table 26: Accessibility Features of Older People's Houses
2008 National Survey – Older People's Repair & Maintenance**

Indoors Accessibility Features	Older People	%
Easy-to-get-at driveways, ramp/street level entrances/no steps	125	7.8
Hand rails at steps or doorway	78	4.9
Garage or carport which meets disabled person's needs	54	3.4
Automatic or easy-to-open doors	12	0.8
Lever door handles	11	0.7
Easy-to-get-at passenger drop off or pick up areas	8	0.5
Widened doorways	6	0.4
Elevator or lift device	2	0.1
Outdoors Accessibility Features		
Easy-to-get-at driveways, ramp/street level entrances/no steps	36	2.3
Hand rails at steps or doorway	26	1.6
Garage or carport which meets disabled person's needs	16	1.0
Automatic or easy-to-open doors	5	0.3
Easy-to-get-at passenger drop off or pick up areas	4	0.3
Widened doorways	2	0.1
Lever door handles	2	0.1

* Multiple response

Similar to the House Maintenance Survey in 2004, those older people report stable living arrangements. Over half (50.6 percent) of the older people had lived in their current dwelling for 14 years or more. Over a quarter (27.4 percent) reported living in their dwellings in excess of 26 years (Table 27). Less than a fifth (17.8 percent) of the participants reported that they intended to move in the next few years (Table 28).

**Table 27: Length of Residence in House
2008 National Survey – Older People’s Repair & Maintenance**

Length	Older People	%
Less than one year	45	2.8
1-4 years	277	17.3
5-7 years	189	11.8
8-10 years	159	9.9
11-13 years	120	7.5
14-16 years	121	7.6
17-19 years	80	5.0
20-23 years	106	6.6
24-26 years	64	4.0
More than 26 years	438	27.4
Don't know	1	0.1
Total	1,600	100

**Table 28: Intention to Move within the Next Few Years
2008 National Survey – Older People’s Repair & Maintenance**

A Move Planned	Older People	%
Yes	285	17.8
No	1,209	75.6
Unsure	106	6.6
Total	1,600	100

The most common reasons for moving are a desire for a smaller property (38.9 percent), and poor health (22.5 percent) (Table 29).

**Table 29: Reasons for Wanting to Move (n=285)
2008 National Survey – Older People’s Repair & Maintenance**

A Move Planned	Older People	%
Want a smaller property	111	38.9
Ill health/old age (poor health)	64	22.5
Want to be closer to family	26	9.1
Want a different area	17	6.0
Want to go to a retirement village	14	4.9
Want a better house	12	4.2
Change in family size	9	3.2
Want a larger property	7	2.5
To be nearer friends	7	2.5
Can't afford to stay	4	1.4
This accommodation is temporary	3	1.1
Want to go to a rest home	2	.7
Want a garden	2	.7
Want to move to a safer area	1	.4
Dislike neighbours/unfriendly people	1	.4
House/flat in poor repair	0	0

* Multiple response 5 missing cases

Some surprising patterns emerge around moving and poor health. Sixty-four participants noted that they intended to move because of poor health. Among those 64 older people, the most common desired destination is a 'smaller property'. Fourteen of the 64 participants wanting to move for health reasons reported smaller properties as a desired outcome. This is the same number who wanted to move to a different neighbourhood. Only two of the 64 reported a retirement village as their preferred destination and none reported that they would move to a rest home. Only one of the 64 specifically wanted a 'better' home and one of the 64 older people moving for health reasons expected to need a change of house because of a change in family size.

In terms of a move to a more supported living environment, it is notable that of the fourteen older people who wish to go into a retirement village (Table 29), only two older people were prompted by ill health. Similarly, neither of the two who reported wishing to go to a rest home also reported moving because of ill-health. None of the participants reported that they wished to move because of the poor state of repair of their dwelling. However, it is clear that intended movers are much more likely to be found among older householders living in dwellings that they see as in average or worse repair. Among older people currently living in what they consider to be dwellings in *Excellent* or *Good* condition, less than a fifth intend to move. That is, 18.4 percent of householders in *Excellent* condition dwellings and 18.1 percent of householders in *Good* condition dwellings. For householders in *Average* condition dwellings, over a quarter (25.1 percent) intend to move. While among householders in dwellings they consider to be in *Poor* or *Very Poor* condition, 45.5 percent intend to move.

6.1 House Comfort, Condition & Safety

As in previous surveys, the older people in this survey are confident in the condition and safety of their dwelling; 46.1 percent describe their dwelling condition as *Excellent* while a further 42.7 percent describe their dwelling condition as *Good* (Table 30).

**Table 30: Self-Reported Condition of Dwellings
2008 National Survey – Older People’s Repair & Maintenance**

Condition	Dwellings	%
Excellent	735	46.1
Good	681	42.7
Average	163	10.2
Poor	12	0.8
Very Poor	5	0.3
Total	1,596	100

* 4 missing cases

Despite this, there are a series of indicators that many of these dwellings do not perform well. While 88.8 percent of householders report their dwellings as in *Good* or *Excellent* condition, only half report that their heating system always keeps them warm in winter. In addition, 34.4 percent of householders report problems with damp, mould or condensation. Almost a quarter (24.7 percent) report that they have had slips or falls inside or immediately outside their home. These together indicate a higher prevalence of poorly designed or maintained homes than older people themselves perceive.

6.2 Renovations, Modifications, Maintenance & Repairs Practice

Older people were asked to identify four sets of activities related to the functionality of their dwellings: repairs, maintenance, modifications and renovations. Many older people do not distinguish between the categories of repair, modification, renovation and maintenance. In particular, repairs and maintenance, and repairs and renovations tend to be conflated. The data presented in the following discussion has, consequently, been subject to additional content analysis and recoding. In particular, it should be noted that where multiple categories of activity have been specified without disaggregation of costs, the category with the activities has been applied and costs attached to that category. The average and median costs associated with repairs, maintenance, modification and renovations are set out in Table 31. The major activities reported by older people are set out in Table 32.

**Table 31: Older People's Investments in Their Dwellings in the last 12 months
2008 National Survey – Older People's Repair & Maintenance**

Activity	Mean \$	Median \$
Repairs/Maintenance	4,344.17	1,100.00
Modifications	16,345.63	1,000.00
Renovations	7,912.80	2,944.00

**Table 32: Activities Undertaken by Older Householders in the Last 12 Months
2008 National Survey – Older People's Repair & Maintenance**

Activity	Older People	%
Exterior re-painting	205	12.8
Interior repainting and/or wallpapering	200	12.5
Install wood burner/pellet burner/heat pump	177	11.1
Roof replacement	171	10.7
Replumbing	112	7.0
Replacing bathroom whiteware	77	4.8
Install ceiling insulation	75	4.7
Replacing kitchen appliances	69	4.3
Replacing kitchen cabinetry	61	3.8
Replacing bathroom cabinetry	53	3.3
Install ventilation system such as HRV/DVS	52	3.3
Install new hot water system or upgrading old hot water system	48	3.0
Install underfloor insulation	47	2.9
Carpeting	45	2.8
Adding rooms	31	1.9
Rewiring full or significant part of the dwelling	31	1.9
Install double glazing	28	1.8
Replacement of significant amounts of exterior cladding	27	1.7
Install wall insulation	26	1.6
Installing a rangehood or extractor fan in kitchen	14	0.9
Replacement of interior cladding	13	0.8
Installing an extractor fan in the bathroom	11	0.7
Installing smoke alarm or other fire safety equipment	10	0.6
Polishing floors	9	0.6
Installing passive vents in windows	9	0.6
Installing a low flow showerhead	8	0.5
Install rainwater tank	4	0.3
Venting the drier to the outside	4	0.3

* Multiple response

6.3 Factors Affecting Dwelling Investments

Almost a fifth of older people (19.4 percent) reported that they had delayed repairs, maintenance, modification or renovation 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, while 5.9 percent reported that they were unable to get tradesmen (Table 33).

**Table 33: Factors Leading to Deferring Repairs and Maintenance
2008 National Survey – Older People’s Repair & Maintenance**

Factor	Older People	% Older People
Inconvenient	55	17.9
Wanted better information about what needed to be done	10	3.3
Too expensive	169	55.0
Just not big enough	5	1.6
Could not get tradespeople	18	5.9
Possibly moving/not sure if I'll be here	11	3.6
Procrastination/can't make up mind/lazy	21	6.8
Health/family problems	8	2.6
Waiting for weather	4	1.3
Awaiting family assistance	5	1.6
Other	1	.3
Total	307	100.0

Dissatisfaction with repairs, maintenance, modifications and renovations does not appear to be an influence in relation to older household's propensity to invest in their dwellings, except, possibly, in relation to value-for-money and cost. Ninety-five percent of those who had work undertaken on their homes were satisfied or very satisfied with the quality of workmanship, with a similar proportion satisfied or very satisfied with timeliness. The proportion of householders very satisfied with value-for-money was distinctly lower than for quality and timeliness (Table 34).

**Table 34: Satisfaction with Work on Dwellings
2008 National Survey – Older People’s Repair & Maintenance**

Satisfaction Level	Quality (n=1022)		Timeliness (n=1006)		Cost and Value for Money (n=956)	
	n	%	n	%	n	%
Very Satisfied	725	70.9	644	64.0	523	54.7
Satisfied	246	24.1	314	31.2	375	39.2
Neither Satisfied or Dissatisfied	16	1.6	10	1.0	22	2.3
Dissatisfied	21	2.1	24	2.4	24	2.5
Very Dissatisfied	14	1.4	14	1.4	12	1.3

Typically older people rely on the building industry (particularly tradespeople) for information about repairs, maintenance, renovations and modifications (Table 35). There is very little engagement with independent and professional assessors either in the building industry or the other sectors such as health or ACC. Family and friends also make important contributions to information for a considerable proportion of older people around dwelling repairs, maintenance, modifications and renovations. About a quarter of older people report relying on their own expertise.

**Table 35: Information Sources Used by Older People
2008 National Survey – Older People’s Repair & Maintenance**

Information Source	n	%
Advice from Tradespeople	735	45.9
Friends	480	30.0
Family	428	26.8
Own Experience	409	25.6
Building Suppliers	382	23.9
Books, magazines and newspapers	266	16.6
Internet	83	5.2
Building Inspection	24	1.5
BRANZ	6	0.4
Needs Assessor	4	0.3
Occupational Therapist	3	0.2
ACC Case Manager	3	0.2

7. MAINTENANCE & REPAIR CHALLENGE OF AN AGEING POPULATION

The data from existing datasets and the 2008 National Survey of Older People give a remarkably consistent picture of older New Zealanders’ repair and maintenance patterns. Older people are characterised by high levels of owner occupation and confidence in the condition and safety of their houses. Direct investment of dwelling condition show that the condition of older people’s dwellings have improved slightly between 1999 and 2004. However, there are clear indications that the dwelling stock in which older people live performs poorly, and that some older people over-estimate the condition of their dwellings.

The 2004 National Repairs and Maintenance Survey found that 83.5 percent of the older owner occupiers perceived their dwellings to be in *Good* or *Excellent* condition. The direct surveying of dwellings by BRANZ, however, found that only 73.3 percent of the dwellings with older householders are in *Good* or *Excellent* condition. In addition the 2008 National Older People’s Repair and Maintenance Survey found that only half of the participants report that their heating system always kept them warm in winter. Over a third (34.4 percent) of householders reported problems with damp, condensation and mould and almost a quarter (24.7 percent) reported that they have had slips or falls inside or immediately outside their home.

On the basis of interviewing 30 New Zealand older homeowners, Davey (2006) has concluded that older people plan and undertake repairs, maintenance and house adaptations. The statistical data, however, consistently shows that older people have a pattern of repair and maintenance deferral.⁷ The value of unmet repairs and maintenance for older householders’ dwellings increased by 5.9 percent between 1999 and 2004, and the proportion of older people’s dwellings in the *Good* or *Excellent* condition categories fell from 80.6 percent to 73.3 percent. That pattern is also consistent with overseas experience for older people.

⁷ The pattern of repair and maintenance deferral is also characteristic of home owners under 65, as shown in the National Repairs and Maintenance Survey 2004.

Overseas there has been a strong move over the last decade to encourage and assist owner occupiers to repair and maintain their houses. An increasing number of countries have seen a dilapidated housing stock and/or a housing stock with low levels of performance and amenity as a national problem. Those countries have found that the social, economic and environmental costs of a poor housing stock extend beyond the people who reside in dilapidated housing. Internationally, there is a strong research and experiential platform of evidence showing that poor housing stock:

- places at risk the value of previous private and public investment in the national infrastructure
- is a major impediment to sustainability
- reduces the energy efficiency of the stock with associated excessive demand for energy and/or fuel poverty problems
- risks the long-run degradation of stock functionality
- generates poor health, safety, educational and human capital outcomes, the costs of which are not confined to the individuals who live in poor housing
- is likely to expose governments to the costs of the poor social, environmental and health outcomes associated with poor housing condition
- increases the pressure to fund or provide social housing or, in the case of older people, residential care
- de-stabilises households and communities
- encourages localised social and economic decline, and
- increases residential movement and instability.⁸

British research has found that the costs of repair are clearly unaffordable for some groups.⁹ The groups most vulnerable are owner-occupiers in dilapidated homes. In England those tend to be:

- ethnic minority households
- youth households
- part-time employed, unemployed or non-labour force participant households
- over 75 year-olds
- lone-parent households
- those with residency for 30 years or more
- households with members in full-time education.

Those on low and uncertain incomes are also likely to under-invest. Again older people are affected by this because they are marginal to the employment market and their earning power is limited by disability, illness or age.

⁸ There is a significant range of research around the problems generated by stock dilapidation, aging and decline. Parkes and Kearns (2003) recommend investments in both housing quality and in neighbourhood management as primary pathways to stabilising neighbourhoods irrespective of the tenure profile of the declining neighbourhood. Other key references are: Forrest (2004); Bridge *et al* (2004); Scottish Executive (2003); ODPM (Oct 2002); Cole and Nevin (2004); Terry and Joseph (1998); Green *et al* (2005); ODPM (2003); Boelhouwer and Elsinga (no date); Scottish Executive (2002); Heather (2000); Mullins *et al* (2004).

⁹ Leather (2000):13.

According to the Department of Environment (DoE) (1996), in England, the groups least likely to recognise problems with their dwellings are:

- older people
- low income people
- minority ethnic groups, and
- people with mental health problems.

Older home owners under-invest in repairs and maintenance and older tenants have difficulty in getting their rental dwellings properly maintained. Older people on low incomes, older people who are new settlers or of an ethnic minority, or older people living in rural areas, are most at risk of living in dilapidated dwellings and under-investing in repairs. Older people are not resilient in houses that are poorly repaired, cold, and expensive to run. They become unhealthy, stressed and at risk of injury. 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.

The problem is not one simply of affordability. Overseas research also shows that older owner-occupiers: (a) misread the outcomes of dwelling problems and miscalculate how long repair work can be delayed; (b) do not distinguish between essential and cosmetic work on their dwellings; (c) tend to be reactive to presenting problems rather than systematic in preventative maintenance; and (d) least likely to assess the condition of their house accurately.

There is a widespread trend overseas towards programmes designed to facilitate and encourage owner occupiers to undertake repairs, maintenance and renovations of ageing stock. A review of 27 European countries found that 23 have programmes supporting owner occupiers to invest in repairs and maintenance. Canada, the USA and Australia also have such programmes. In Britain, many new programmes are targeted to older people's repair and maintenance needs.¹⁰

Assisting owner-occupiers to repair and maintain the private housing stock has a long tradition overseas, although the forms of that assistance have changed (Infobox 2). Broadly, the mix of products in repair, maintenance and renovation assistance has expanded from untied grants to the use of a wide range of mechanisms including:

- i. Financial inputs which increasingly mix grants, lending, and tax relief.
- ii. Direct repairs and maintenance services such as subscription services with and without co-payment regimes, and volunteer schemes.
- iii. Advice which falls into two broad categories:
 - Budgetary
 - Maintenance and repair which again divides into:
 - condition assessment

¹⁰ Bridge, C. and M. Flynn, 2003; Cole, I. and Nevin, B., 2004; Department of Health, 2003; DETR, 2003; DETR, 1998; Ellaway, A. and S. Macintyre, 1998; Groves, R. and P. Leather, 2002; Groves, R., A. Middleton, A. Murie and K. Broughton, 2003; Groves, R., J. Morris, A. Murie and B. Paddock, 1999; Leather, P., 2000; Leather, P., A. Littlewood and M. Munro, 1998; Mullins, D., Beider, H. and Rowlands, R., 2004; Nielson, C. W. and I. Ambrose, 1999; ODPM, 2002a; ODPM, 2002b; Office of the Deputy Prime Minister, 2002; O'Sullivan, T., 2004; Oxley, M., A. Golland, S. Hodgkinson and A. Maye, 1999; Pearce, J. and C. Wadhams, 1998; Saville-Smith, K., 2005; Smart, G. and R. Means, 1997; Stewart, J., 2003a; Stewart, J., 2003b.

- maintenance planning and strategies
 - information provision.
- iv. Support and capacity building including:
- equipment loans
 - training
 - DIY support
- v. Quality assurance through a number of initiatives including post work completion inspections and builders lists.

Infobox 1: Changes in Assisting Owner Occupiers to Undertake Repairs & Maintenance

From	To
Primarily relying on untied grants	A menu of different sorts of service supports ranging across financial assistance to advice, information and quality assurance services
Universal programmes	Programmes tailored to the needs of particular groups, needs and locations
Focus on renovation and/or emergency repairs	Focus on preventing the deterioration of vulnerable stock as well as addressing severely dilapidated housing posing immediate health and safety risks Consequent development of specialised products to address a wide range of immediate and future stock problems and the prevention of stock decline involving preventative maintenance assistance to minor repairs to substantial renovation which are directed to extending dwelling functionality to repairs to ensure a dwelling is largely safe and with reduced health risk
Focus on household standard of living	Focuses on the overall quality of the stock, its durability and performance as well as the conditions of individual households
Rigid targeting and eligibility criteria for households	Partnership with home owners with incentives to ensure the integrity and performance of the housing stock as a national asset but requiring home owner investment and activity in relation to repairs and maintenance in exchange
'Take-it or leave-it' delivery of assistance to individual households	Building relationships with families and households and their communities to develop services and products needed in those communities

Changes in targeting reflect the movement away from assistance being limited to emergency repairs on very sub-standard houses posing healthy and safety risks. Overseas, assistance to home owners is increasingly focusing on preventing the deterioration of vulnerable stock in an effort to break the vicious cycle of stock decline and reduce the costs of remediation.

To support those developments, there has also been greater emphasis on developing an information base, a product range, contracting mechanisms, and relationship skills that allow housing agencies to understand the particular needs and options for local communities and the owner occupiers who live in them. Great Britain is particularly advanced in relation to planning, practice and product development. Local authorities are required to have comprehensive local housing strategies, which involve not only a consideration of the quantum of housing available within the local authority boundary, but also the stock condition, and plans for supporting both public sector,

private sector and social housing in the area including analysis of the relative benefits of housing repair, renovation and replacement options.

Early indications from this research are that some of the repair/maintenance dynamics apparent overseas exist in New Zealand, and consequently, the benefits realised overseas from addressing older people's dilapidated housing could also be realised here. As such, it is tempting to advocate that overseas products, services and programmes for repair and maintenance of older people's dwellings should be immediately implemented here. This would be premature. New Zealand has limited resources. Investment needs to be based on robust evidence about the prevalence, impacts and dynamics of dilapidated housing for older New Zealanders. Adopting overseas models without adequate testing in the New Zealand context is likely to generate mis-targeted, inefficient and/or ineffective responses, because New Zealand has significant points of difference from overseas. Those include:

- A dwelling stock with different design/construction characteristics and age profile from stock overseas. New Zealand's repair and maintenance requirements are different, as are the skills, products and costs associated with maintenance and repair.
- New Zealand's older people are predominantly home owners and older tenants are predominantly in the private rental market. This requires a different approach to countries where many older people live in social housing and there are low levels of owner occupation.
- The construction industry, the housing and rental markets, and the income and service supports delivered to older people in New Zealand differ from those found overseas.
- The roles of local and central government, and the interface between the health, welfare and housing sectors in New Zealand differ from other countries, especially the UK, which has been particularly active in developing Staying in Place programmes.

This research programme has been developed to assist in finding effective forms of assistance. The research programme is designed to be solutions orientated, and over the next few years we intend to provide a robust evidential and information base for policy and service development. In addition we hope to provide housing and neighbourhood adequacy assessment tools and demonstrate repairs and maintenance service models for older people.

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ANNEX A
National Survey Questionnaire

AGEING IN PLACE

Research New Zealand # 3760

DATE

Good morning/afternoon/evening, could I please talk to ^2?

Good morning/afternoon/evening, my name is ^1 from Research New Zealand we are conducting research on behalf of CRESA about renovations and maintenance of your home. You may recall receiving a letter about this recently.

This survey takes about 15 minutes. When would suit, or is now a good time?

If person not available, ask:

When would be a good time for me to call back to speak to him/her?

Make appointment

Reintroduce as necessary

Good morning/afternoon/evening, my name is ^1 from Research New Zealand we are conducting research on behalf of CRESA about renovations and maintenance of your home. This research takes about 15 minutes. When would suit, or is now a good time?

Background information only if needed:

- ◆ This is genuine market research. I'm not selling anything.
- ◆ Information provided is confidential. We report summary results about groups; we do not identify which individuals have said what.
- ◆ CRESA or the Centre for Research Evaluation and Social Assessment is a private research company whose research focuses on encouraging community development and sustainable communities.

Read

As part of our quality improvement process, my Supervisor may listen to this call.

Your home

First of all, can you please tell me if you live in a city, town or rural area?

- 1 City
- 2 Town
- 3 Rural area
- 98 .. Don't know

And what sort of house do you live in? **Read**

- 1 A detached single-story house
- 2 A detached house with more than one storey
- 3 A semi-detached single-story house
- 4 A semi-detached house with more than one storey
- 5 A terrace house
- 6 A purpose built flat
- 7 A flat in a converted building
- 8 An apartment in an apartment block with more than two floors
- 96 .. Other **Specify **Do not read****

Can you tell me when your home was built?

- 1 Before 1970
- 2 1970-1977
- 3 1978-1990
- 4 1991-2000
- 5 2001-2008
- 98 .. Don't know

Do you own this house? **If necessary:** And do you have a mortgage?

- 1 Yes - with a mortgage
- 2 Yes - without mortgage
- 3 No - renting
- 96 .. Other **Specify**

How long have you lived at this address?

- 1 Less than one year
- 2 1 - 4 years
- 3 5 - 7 years
- 4 8 - 10 years
- 5 11 - 13 years
- 6 14 - 16 years
- 7 17 - 19 years
- 8 20 - 23 years
- 9 24 - 26 years
- 10 .. More than 26 years
- 98 .. Don't know

Do you expect to move from your house within the next few years?

- 1 Yes
- 2 No
- 98 .. Don't know

If 0= 2 or 98 go to 0, else ask: Why do you expect to move? Code many. Probe to no.

- 1 Want larger property
- 2 Want smaller property
- 3 Want to be closer to family
- 4 Want to move to a safer area
- 5 Want to go to a rest home
- 6 Want to go to a retirement village
- 7 Ill health/old age (poor health)
- 8 Want a different area
- 9 Dislike neighbours/unfriendly people
- 10 . Change in family size
- 11 .. Want a better house
- 12 .. Want a garden
- 13 .. To be nearer friends
- 14 .. This accommodation is temporary
- 15 .. House/flat in poor repair
- 16 .. Can't afford to stay
- 96 .. Other Specify
- 98 .. Don't know ;E

Comfort, health and safety

These next questions I have are about your comfort and health and safety in your home. During the winter months, do you generally find that your heating keeps you warm enough at home... **Read.**

- 1 Always
- 2 Most of the time
- 3 Some of the time or
- 4 Never
- 98 .. Don't know ****Do not read****

Do you get damp, condensation or mould in any rooms?

- 1 Yes
- 2 No
- 98 .. Don't know

Have you ever burnt yourself on hot water directly from one of the taps in your home?

- 1 Yes
- 2 No
- 98 .. Don't know

Have you injured yourself from a slip or a fall at home (either inside or outside)?

- 1 Yes
- 2 No
- 98 .. Don't know

Have you ever had an unintended fire in your home?

- 1 Yes
- 2 No
- 98 .. Don't know

Does anyone smoke inside your house?

- 1 Yes
- 2 No
- 98 .. Don't know

Do you have an escape plan in the event of a fire in your home?

- 1 Yes
- 2 No
- 98 .. Don't know

And overall, how would you describe the current condition of your house? **Read.**

- 1 Excellent – No immediate repair and maintenance needed
- 2 Good – minor maintenance needed
- 3 Average – Some repair and maintenance needed
- 4 Poor – Immediate repairs and maintenance needed
- 5 Very poor – Extensive and immediate repair and maintenance needed
- 98 .. Don't know

Now can you tell me what kinds of repairs, if any, have been made to your home in the last 12 months (please don't include renovations or modifications to help your accessibility. I will ask about those later)? **Code many. Probe to no.**

If necessary prompt: Which parts of your house were those made to?

- 1 Roof replacement
- 2 Exterior re-painting – part or all
- 3 Replacement of significant amounts of exterior cladding
- 4 Replacement of interior cladding
- 5 Interior repainting and/or wallpapering
- 6 Carpeting
- 7 Polishing floors
- 8 Adding rooms
- 9 Replacing bathroom whiteware
- 10 .. Replacing kitchen appliances
- 11 .. Replacing bathroom cabinetry
- 12 .. Replacing kitchen cabinetry
- 13 .. Rewiring full or significant part of the dwelling
- 14 .. Replumbing
- 15 .. Install underfloor insulation
- 16 .. Install ceiling insulation
- 17 .. Install wall insulation
- 18 .. Install double glazing
- 19 .. Install wood burner/pellet burner/heat pump
- 20 .. Install new hot water system or upgrading old hot water system
- 21 .. Install ventilation system such as HRV/DVS
- 22 .. Install rainwater tank
- 23 .. Installing a rangehood or extractor fan in kitchen
- 24 .. Installing an extractor fan in the bathroom
- 25 .. Venting the drier to the outside
- 26 .. Installing passive vents in windows
- 27 .. Installing a low flow showerhead
- 28 .. Installing smoke alarm or other fire safety equipment
- 96 .. Other **Specify**
- 97 .. None **;E**
- 98 .. Don't know **;E**

If 0= 97 or 98 go to 0, else ask: How much did these repairs cost (an estimate is fine)?

- 1 Specify amount **Specify**
- 98 .. Don't know
- 99 .. Refused

What kinds of modifications, if any, have you had done to the inside of your house to help make it more accessible? **Prompt with 2-3 codes if necessary. Code many.**

Were any of these done in the last 12 months? **Code many.**

	0 Ever done	0 Last 12 months
a. Grab or hand rails	1	1
b. Elevator or lift device	2	2
c. Widened doorways or hallways	3	3
d. Visual or flashing alarms	4	4
e. Audio warning device	5	5
f. Automatic or easy-to-open doors or windows	6	6
g. Lowered benches or sinks	7	7
h. Lowered switches or power points	8	8
i. Bed or bath lifts	9	9
j. Wet area shower	10	10
k. Easy-to-get at toilet	11	11
l. Lever door handles	12	12
m. Emergency call system	13	13
96. Any other special feature Specify	96	96
97. No/none	97 0	97 ;E
98. Don't know	98 0	98 ;E

Now how about **outdoors**? What kinds of modifications have been done there? **Prompt with 2-3 codes if necessary. Code many.**

And were any of these done in the last 12 months? **Code many.**

	0 Ever done	0 Last 12 months
a. Easy-to-get-at driveways, ramps or street level entrances	1	1
b. Easy-to-get-at passenger drop off or pick-up areas	2	2
c. Elevator or lift devices	3	3
d. Widened doorways	4	4
e. Automatic or easy-to-open doors	5	5
f. Hand rails at steps or doorway	6	6
g. Lever door handles	7	7
h. Garage or carport which meets disabled person's needs	8	8
96. Any other special feature Specify	96	96
97. No/none	97 0	97 ;E
98. Don't know	98 0	98 ;E

If (0 > 96) and (0 > 96) go to 0, else ask: How much did these modifications in the last 12 months cost (an estimate is fine)?

- 1 Specify amount **Specify**
- 98 .. Don't know
- 99 .. Refused

What other kinds of renovations or remodelling or retrofitting of things like insulation, heating appliances etc, if any, have you done in the last 12 months? Prompt with 2-3 codes if necessary: Code many. Probe to no.

- 1 Roof replacement
- 2 Full exterior re-paint
- 3 Replacement of significant amounts of exterior cladding
- 4 Replacement of interior cladding
- 5 Interior repainting and/or wallpapering
- 6 Carpeting
- 7 Polishing floors
- 8 Adding rooms
- 9 Replacing bathroom whiteware
- 10 .. Replacing kitchen appliances
- 11 .. Replacing bathroom cabinetry
- 12 .. Replacing kitchen cabinetry
- 13 .. Rewiring full or significant part of the dwelling
- 14 .. Replumbing
- 15 .. Install underfloor insulation
- 16 .. Install ceiling insulation
- 17 .. Install wall insulation
- 18 .. Install double glazing
- 19 .. Install wood burner/pellet burner/heat pump
- 20 .. Install new hot water system or upgrading old hot water system
- 21 .. Install ventilation system such as HRV/DVS
- 22 .. Install rainwater tank
- 23 .. Installing a rangehood or extractor fan in kitchen
- 24 .. Installing an extractor fan in the bathroom
- 25 .. Venting the drier to the outside
- 26 .. Installing passive vents in windows
- 27 .. Installing a low flow showerhead
- 28 .. Installing smoke alarm or other fire safety equipment
- 96 .. Other **Specify**
- 97 .. None ;E
- 98 .. Don't know ;E

If 0= 97 or 98 go to 0, else ask: How much did these renovations, remodelling and retrofitting in the last 12 months cost?

- 1 Specify amount **Specify**
- 98 .. Don't know
- 99 .. Refused

Did you decide to delay or defer any maintenance, modifications, and/or renovations in the last 12 months?

- 1 Yes
- 2 No
- 98 .. Don't know

If 0 = 2 or 98 go to 0, else ask: What was the main reason for delaying or deferring maintenance/modifications/renovations?

Prompt if multiple responses given. Which of those was the most important reason?

- 1 Inconvenient
- 2 Wanted better information about what needed to be done
- 3 Too expensive
- 4 Job not big enough
- 5 Couldn't get tradespeople
- 96 .. Other **Specify**
- 98 .. Don't know

If 0 = 97, 0 = 97, 0 = 97 and 0 = 97 go to 0, else ask: How satisfied were you with the following aspects of the work that was done? **Read. Probe: Is that very satisfied/dissatisfied or just satisfied/dissatisfied?**

	Very satisfied	Satisfied	Neither satisfied nor dissatisfied	Dissatisfied	Very dissatisfied	N/A	Don't know
a. The quality of the workmanship	1	2	3	4	5	97	98
b. The timeliness of the workmanship	1	2	3	4	5	97	98
c. The cost/value for money	1	2	3	4	5	97	98

When you need information on repairs and maintenance, modifications or renovations where do you get it from? **Code many. Probe to no.**

- 1 My own experience and knowledge suffices
- 2 Family
- 3 Friends
- 4 Advice from tradespeople
- 5 Advice from building suppliers
- 6 Advice through building inspection
- 7 Books, magazines and newspapers
- 8 Internet
- 9 BRANZ
- 10 .. ACC Case Manager
- 11 .. Occupational Therapist
- 12 .. Needs Assessor
- 96 .. Other **Specify**
- 97 .. Nowhere/do not look for this type of information ;E
- 98 .. Don't know ;E

Demographic profile

The last few questions I have are about you. This is just to make sure we have interviewed a good cross-section of people.

What age group are you? **Read**

- 1 65-74 years
- 2 75-84 years
- 3 85 years or over
- 99 .. Refused ****Do not read****

Which ethnic group do you belong to? **If necessary:** You can belong to more than one.
Code many.

- 1 New Zealand European
- 2 Maori
- 3 Samoan
- 4 Cook Island Maori
- 5 Tongan
- 6 Niuean
- 7 Chinese
- 8 Indian
- 96 .. Other **Specify**
- 99. . Refused **;E**

Do you or anyone in your household receive New Zealand Superannuation or Veterans Pension?

- 1 Yes
- 2 No
- 98 .. Don't know

Do you or anyone else in your household have any other household income?

- 1 Yes
- 2 No
- 98 .. Don't know

If 0 = 2 or 98 go to 0, else ask: What are they? Code many.

- 1 Other superannuation, pension or annuities (other than NZ Superannuation, Veterans Pension or war pensions)
- 2 Wages, salary, commissions, bonuses etc, paid by an employer
- 3 Self-employment or business you own and work in
- 4 Interest, dividends, rent, other investments
- 5 Regular payments from ACC or private work accident insurer
- 6 Government Benefit (sickness benefit, DPB, invalids benefit, student allowance)
- 7 Other government benefits, government income support payments, war pension, or paid parental leave
- 96 .. Other sources of income, counting support payments from people who do not live in my household
- 99 .. Refused **;E**

Last year, what was your household's total annual income before tax from all sources?

Was it... **Read**

- 1 \$10,000 or less
- 2 \$10,001 to \$20,000
- 3 \$20,001 to \$30,000
- 4 \$30,001 to \$40,000
- 5 \$40,001 to \$50,000
- 6 \$50,001 to \$70,000
- 8 \$70,001 to \$100,000
- 9 Over \$100,000
- 98 .. Don't know ****Do not read****
- 99 .. Refused ****Do not read****

Including yourself how many people usually live in your house?

- 1 Specify number **Specify**
- 99 .. Refused

How many of these people are aged 65 years and over?

- 1 Specify number **Specify**
- 99 .. Refused

And how many of these people are aged 14 years and younger?

- 1 Specify number **Specify**
- 99 .. Refused

Which of the following best describes who is in your household (including yourself)?

Read

- 1 One person only
- 2 Couple with no child(ren)
- 3 Couple with child(ren)
- 4 Couple and other adult(s) but no children
- 5 One parent with child(ren)
- 6 One parent with child(ren) and other adult(s)
- 7 Two families (with or without others)
- 8 Three or more families (with or without others)
- 9 Several adults (e.g. flatting together)
- 96 .. Other **Specify** ****Do not read****
- 99. . Refused ****Do not read****

Closing Questions

Thanks for that. Do you have any other comments you'd like to make about the subject of this interview?

- 1 Comments **Specify**
- 2 No

May I please confirm your name in case my supervisor needs to check on the quality of this interview? **Record first and last name**

Those are all the questions I have. Thank you very much for your help. My name is **QOIV** from Research New Zealand. If you have enquiries about this survey, please ring the Project Manager, Bronwen Hansen on our toll-free number: 0800 500 168. (Wellington respondents 499-3088).

