



# **Housing and Disability: Future Proofing New Zealand's Housing Stock for an Inclusive Society**

PREPARED BY

**CRESA/Public Policy & Research/  
Auckland Disability Resource Centre**

FOR THE

**Centre for Housing Research,  
Aotearoa New Zealand**

AND

**The Office for Disability Issues**

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**Housing and Disability**  
**Future Proofing New Zealand's Housing Stock for an  
Inclusive Society**

**Final Report**

**Prepared for  
Centre for Housing Research Aotearoa New Zealand**

**Kay Saville-Smith CRESA  
Bev James Public Policy & Research  
Ruth Fraser CRESA  
and  
Bernadette Ryan and Sarah Travaglia Auckland DRC**

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## EXECUTIVE SUMMARY

CHRANZ has commissioned this research to assist the housing and disability sectors to optimise housing access for the growing number of people who will have moderate to severe physical and sensory disability that affects their mobility. The research focuses on:

- The current housing experiences of physically disabled people, both young and old;
- The capacity of the housing market to respond to the rising demand for ‘lifetime homes’; and
- The opportunities to establish a housing stock that is future-proofed for those affected by challenges to their mobility and agility through moderate to severe physical disability and ageing.

The research has shown that disabled people’s housing needs are not being met by New Zealand’s current housing stock. Disabled people and the Government through the health vote and through Accident Compensation Corporation funding, all make considerable investments into housing modifications. Many of those modifications would be more functionally effective and more cost effective if they were integrated into the design of newly built or renovated houses. Additional modifications for highly specialised and specific needs would, under those circumstances, be more affordable and better targeted.

This research shows that there are major challenges for our society to provide appropriate housing for people with mobility disabilities and their families:

- There is considerable unmet need for accessible, warm, comfortable housing that works well for disabled people whose mobility is impaired.
- Almost a quarter of disabled people participating in the survey found it difficult to attain satisfactory indoor temperatures during winter.
- Over two-fifths of respondents to the individual survey identified a range of features that they needed to safely enter and exit their homes and half identified unmet needs in relation to internal house modifications.
- Unmet need is likely to increase as the prevalence of disability and impaired mobility increases.
- Inaccessible housing affects the productivity and social life of people with disabilities and their families.
- Currently there is very little adoption of universal design features in new houses that would ensure a basic level of accessibility.
- A significant proportion of the public and private funding for house modifications is spent on very basic adaptations (such as widening doors and installing wet area showers) that could be more easily and more cost-effectively built into all new and renovated housing.
- Opportunities to ensure that new dwellings provide basic levels of accessibility and functionality for people with moderate and severe mobility disability are not well recognised in the supply-side of the housing market.
- Modifications of existing stock are often done piecemeal and often do not deal with the changing needs of disabled people and their families and modified houses are frequently not retained in the market or made available to people seeking accessible housing.

The impact of inaccessible and inadequate housing is very personal and profound for disabled people and their families. Examples have emerged in the course of this research in which:

- Disabled parents are unable to care for their children because certain modifications such as widening the door to their children's rooms were not seen as necessary.
- Disabled people have compromised or forgone educational, work and relationship opportunities because of problems with accessing adequate housing.
- The families and housemates of disabled people are expected to undertake all the cooking for a disabled person because the presence of other adults in the household is interpreted as making accessible kitchen modifications unnecessary.
- Disabled people fear for their safety if there is a fire because only one accessible exit is seen as necessary.

Some groups of disabled people are particularly vulnerable to not having their needs met. They include young people in transition to adult life; people dependent on funding through the health sector; people who are renting; people who do not have access to the resources and support of families; and people whose families have low incomes.

New Zealand is not well placed to meet the rising demand for accessible housing:

- There is low recognition in the supply-side of the housing sector of the positive market opportunities for housing that is accessible and functional for people throughout their lives.
- There are also no systematic mechanisms by which modified houses can be retained in the market and made available to disabled people seeking modified housing.
- Community housing providers have some recognition of disability but are primarily concerned with older people. Community housing providers focus almost entirely on addressing affordability problems and generally do not give prominence to access issues.

When looking to the future for accessible housing, several key points emerge from overseas and New Zealand experience:

- Unmet needs are often as fundamental as being able to safely enter and leave the house, to access all rooms within one's home and to socialise with other family members. These are basic needs and human rights, not just desirable lifestyle additions.
- Focusing only on an individual's need for an accessible dwelling does not meet the needs of disabled people for accessible communities, social and work environments.
- Accessible design does stabilise people and assist them to stay in their homes and communities.
- Housing modification schemes are unlikely, in their current form, to be a sufficient response to meet growing need.
- Universal design features do not meet all the housing needs that arise for people with moderate or severe mobility disabilities. The need for customised modification will remain.
- The influence of the accessible housing movement is increasing as policy discourses between ageing-in-place and disability converge and the political influence of older disabled people grows.

- The current generation of younger disabled, and the next generation of older disabled people are more open to use of assistive technologies. These technologies can be integrated into the design and build of new homes and into renovations in the mainstream housing stock.
- Mainstreaming new accessible housing design through regulation will have a limited effect in the short to medium term. Most disabled people will live in existing stock.
- There is widespread lack of appreciation and understanding of the advantages and potential of universal housing design within the housing and building sectors, as well as within the community at large. Consumer resistance to universal design homes is apparent, but on international evidence, can be overcome with attention to increasing the provision of good information, good aesthetic design and implementation of standardised design features that can be easily taken up by the construction industry.
- The realignment of the stock will require increased capacity and expertise in health and disability services, needs assessment, housing services and the building sector. Capacity building will take time.
- The efficient use of existing accessible housing stock needs to be optimised, for example, through the establishment of accessible housing registers.

Addressing unmet need now and into the future requires a strong focus on raising awareness and encouraging responses from the private sector and community housing sector. It can not be achieved under the current policy settings in which the accessibility of housing for disabled people is seen primarily as a responsibility for the disability sector and primarily a matter of modification of houses in response to an individual's demand. An accessible, well performing stock has benefits not only for disabled people but for their families. It should be seen as part of New Zealand's long term goal of making our built environment resource efficient and sustainably supporting liveable homes and communities. An accessible housing stock that meets the changing needs of disabled people and performs well for them, is a future proofed stock that will perform well for everyone. It requires the active attention of the disability, housing and energy sectors, both public and private.

The immediate priorities are:

- Improving the accessibility and comfort of housing stock through the introduction of universal and accessible design.
- Improving the policy, funding and practice around providing customised accessibility features to meet individual needs.
- Capacity building in the housing and disability sectors to ensure that opportunities are taken to cost-effectively optimise accessibility in new stock, renovated stock and stock requiring modification for a particular disabled person.
- More efficient use of modified housing stock.



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## 1. INTRODUCTION

- 1.1 CHRANZ has commissioned research that explores: the implications for housing of increased prevalence of physical and sensory disability that impairs mobility; the current experiences of physically disabled people with impaired mobility around housing; and, capacity of the housing market to respond to the rising demand for 'lifetime homes' and the opportunities to establish a housing stock that is future-proofed for those affected by challenges to their mobility and agility through moderate to severe physical disability and ageing.
- 1.2 The findings of that research are presented in this report which is accompanied by two working papers. Those are:
- Disability Prevalence Data and Housing: A Review Paper.
  - International Trends in Accessible Housing for People with Disabilities: A selected review of policies and programmes in Europe, North America, United Kingdom, Japan and Australia.
- 1.3 The working papers provide more detailed accounts of trends in disability prevalence and an overview of international trends in accessible housing policies and programmes. The structure of this report is as follows:
- Section 2 describes the research context and focus.
  - Section 3 summarises the findings from the working paper on disability prevalence.
  - Section 4 comments on the housing experiences of disabled people, based on information gained from surveys and focus groups with people with physical/mobility disability and parents with children with physical/mobility disability.
  - Section 5 considers the extent to which the demand for accessible housing is being met in the housing sector, based on information gained from surveys and in-depth interviews with a range of housing providers and a survey of real estate agents.
  - Section 6 summarises the selected review of accessible housing policies and programmes in Europe, North America, United Kingdom, Japan and Australia.
  - Section 7 comments on priorities for developing a way forward to improve New Zealand's housing stock for the growing population of people managing moderate to severe mobility disability over the next 25 years.

## 2. THE RESEARCH CONTEXT, FOCUS AND METHODS

- 2.1 There is a new awareness that the homes and neighbourhoods in which people with physical disabilities live have profound impacts on their independence, their ability to be socially and economically active, their functionality, and their quality of life. CHRANZ has commissioned this research not only because of persistent anxiety about the extent to which disabled people's housing needs are being adequately met, but because rising disability prevalence raises issues around the capacity of the housing sector to deliver accessible housing in the future. In particular, CHRANZ wanted to explore the following questions:
- What is the likely prevalence of physical disability in 2050 in relation to moderate and severe disabilities?

- What is the international housing response to increasing prevalence and incidence of physical disability?
- Are there a range of options for the design and construction of new dwellings and neighbourhoods that could be applied in New Zealand to optimise their functionality for both current and future users?
- Are there a range of options for the modification and retrofit of existing dwellings that could be applied in New Zealand to optimise their functionality for both current and future users?
- Do identified options align with the expressed needs of New Zealand disability groups and with different population and cultural needs?
- Are there barriers to the take-up of the concepts of 'lifetime homes' and disability-proof dwellings in the New Zealand context for new and existing homes?
- What are the key ways in which key players in the housing sector could be encouraged to disability-proof the New Zealand housing stock?

2.2 To address those questions, data has been collected in relation to what might broadly be called the demand-side of disabled housing experience and in relation to the supply side of housing provision.

### ***Exploring Disabled People's Housing Experience***

- 2.3 The demand-side focus has involved:
- A survey with disabled people (the 'individual survey').
  - Focus groups with various groups of disabled people and their families including with:
    - Young adults with a disability
    - Parents of children with a disability
    - Maori disabled people and their whanau and carers
    - Pacific disabled people and their carers
    - Northland disabled people and parents of children with a disability.
  - A survey with parents with one or more disabled children residing in their households.
- 2.4 The focus groups involving 39 people were undertaken in both the North and South Islands. They were as follows:
- Parents and young people's focus groups Blenheim, 16 October 2006. Two focus groups consisting of 9 people were held. The venue was CCS Blenheim, which assisted in organising the meetings. The two focus groups were scheduled in succession and discussion merged, with a few participants staying on for part of the second focus group. Some parents accompanied the young people, while one young disabled adult came by himself. The focus groups included five parents of young adult disabled, one parent of a disabled pre-schooler, three young adult disabled. One facilitator and note taker.
  - Maori focus group/hui 29 November 2006. Ten people attended the focus group held at Te Roopu Waiora, Papatoetoe, which assisted with organising the hui. The focus group included people with physical disabilities, parents, a support worker and a caregiver. All are South Auckland residents. One facilitator and note taker.

- Pacific focus group 30 November 2006. Thirteen people attended the focus group held at PIASS Trust Auckland, which assisted with organising the meeting. The focus group was conducted with three facilitators: Samoan, Cook Island and Tongan. The focus group included people with physical disabilities and caregivers. All are South Auckland residents. Discussion was transcribed into English.
  - Northland focus group 19 December, 2006. Seven people attended the focus group at NorthAble, Whangarei. The focus group included three parents, three people with physical impairments and one partner of a person with a physical impairment. Three are residents of the Mid North region, and the rest live in Whangarei. One facilitator and note taker.
- 2.5 The questionnaires for both surveys were self-complete and broadly similar, drawing on standardised questions around disability, house adaptation, house performance, and neighbourhood experience. The questionnaires can be found in Annex A and Annex B respectively.
- 2.6 The individual questionnaire is extensive and while it would have been desirable to replicate the method used by Statistics NZ to establish disability severity among the population, that approach would have overburdened the questionnaire, which was directed primarily at explaining housing experiences. This survey focuses on the main cause, condition and current level of disability.
- 2.7 In both the individual survey and the parent survey, data was collected using a structured questionnaire of predominantly closed-ended questions. The target population for the individual survey was individuals with a mobility/physical disability of a moderate to severe nature. The parent survey was also targeted to parents with children residing with them with a moderate to severe impairment of mobility through physical disability (some of those children were adults). Potential interviewees were generated through local disability information services such as CCS and the disability networks of Auckland Disability Resource Centre (DRC). Letters and/or e-mails were sent out through these networks outlining the research and inviting individuals to contact the research team if they were willing to participate in the survey. A CRESA freephone number was provided to facilitate contact with the research team.
- 2.8 An initial draft of the questionnaire was developed by CRESA in consultation with DRC and drawing on standardised questions in a variety of housing surveys and disability surveys undertaken here and overseas. The questionnaire was piloted before entering the field. The survey distribution was rolling rather than with a set start and end date. Once an individual signalled their interest in participating they were sent a survey form, or a time was made to survey them face-to-face or by phone if that was more appropriate. Survey distribution began in early September 2006 and completed surveys were accepted until the cut off date on 1 November 2006.
- 2.9 A total of 121 people participated in the individual survey and 31 parents participated in the parent survey. The closed-ended questions were pre-coded and analysed in SPSS using univariate analysis of frequencies and cross tabulations.



- 2.10 Neither surveys are randomised, representative samples. They are quota surveys of self-identified people with moderate to severe physical disability, or parents of people with a disability in the same household. The findings provide systematic exploration of the housing experiences of disabled people and their families. Indeed, the survey provides the only systematic data in New Zealand that focuses on the housing experience of disabled people and their families in relation to housing performance, housing modifications and housing access. While the data should be treated as indicative, it should be noted that the findings are consistent with data arising from the focus groups undertaken in the course of this research and, indeed, with other research both here and overseas related to the performance of the New Zealand housing stock and the experience of disabled people in housing markets.

### ***Providing Accessible Housing***

- 2.11 The research focus on the supply side of accessible housing involved:
- A survey of community-based housing service providers.
  - A survey of real estate agents.
  - In-depth interviews with:
    - a private developer of housing, and
    - Housing New Zealand Corporation officials involved in the development, renewal and delivery of its housing stock.
- 2.12 The survey of community-based housing providers was assisted by Community Housing Aotearoa Inc (CHAI), an umbrella organisation committed to the development of the community housing sector, and the Auckland Disability Resource Centre. They identified 125 organisations involved in housing service provision. It should be noted that retirement villages and rest homes were excluded from the survey unless they were members of CHAI. Data was collected from providers through a self-complete survey using a structured questionnaire of predominantly closed-ended questions. Where providers found it easier to respond by telephone, telephone interviewing using the questionnaire was undertaken.
- 2.13 The questionnaire consisted of 13 close-ended questions. Participants were given the opportunity to make further comment at the end of the survey. The questionnaire is presented in Annex C. The closed-ended questions were pre-coded and analysed in SPSS using univariate analysis of frequencies.
- 2.14 A total of 125 providers were surveyed. There was a 71.2 percent response rate. Of the 89 providers that responded, only 54 providers identified themselves as housing service providers with disabled people among their clients. Only those 54 providers completed the full questionnaire which collected a variety of information including:
- The range of housing services provided.
  - The extent of direct housing provision and the size, funding and accessibility of their housing stock.
  - The targeting of disabled people and their families relative to other groups.
- 2.15 Data was collected from real estate agents in the five main centres of Auckland, Hamilton, Wellington, Christchurch and Dunedin through a telephone survey using a structured questionnaire of predominantly closed-ended questions.

- 2.16 The target population for the survey was real estate agents in the main centres. Previous experience of surveying with groups of professionals has shown more success in phone surveys where specific named individuals are targeted for interviews rather than a two-step process of calling an organisation (in this case the real estate agency/branch) and asking them to nominate a participant.
- 2.17 To develop a sample framework, a list of real estate agents in the five main centres was compiled using a combination of yellow page searches and individual internet web pages for real estate firms. The searches focused on the larger real estate firms in each city.
- 2.18 A quota sample of 80 interviews distributed across the five main centres of Auckland, Wellington, Christchurch, Dunedin and Hamilton was targeted. From the list of real estate agents, interviewees were randomly selected and telephoned by CRESA interviewers. Real estate agents who were unable to be contacted or declined to be interviewed were replaced by another randomly selected real estate agent. The telephone surveying was completed over a two week period in September 2006. A total of 81 interviews were completed.
- 2.19 The questionnaire consisted of 14 closed-ended questions. Participants were also given the opportunity to make comments during the course of the interviews. The questionnaire is presented in Annex D. The closed-ended questions were pre-coded and analysed in SPSS using univariate analysis of frequencies.
- 2.20 The in-depth interviews were undertaken with:
- A private developer of housing including master plan communities, retirement villages and investment properties for owner occupiers and private landlords.
  - Housing New Zealand Corporation officials involved in the development, renewal and delivery of its housing stock with a focus on those involved in a recent development of medium density housing in Auckland.
- 2.21 In both cases, interviews were undertaken using semi-structured conversational interviewing techniques. Interviews were recorded electronically and by hand and subject to thematic analysis. The interview guide can be found in Annex E.

## **Summary**

- 2.22 In summary, this research:
- Focuses on the experience of disabled people with moderate to severe mobility impairment.
  - Explores the changing experience of disabled people by assessing the extent that demand for accessible and adequately performing housing is supplied through the current housing market and the disability sector.
  - Is based on primary research with disabled people, their families and key stakeholders in the housing sector.
  - The research involved:
    - Surveys of 121 disabled people and 31 parents with one or more disabled children.
    - Focus groups with disabled people and their families including: young people, Maori, Pacific people, and parents.

- Surveys of 125 agencies in the community housing sector and 81 real estate agents in New Zealand's five main centres.
- In-depth interviews with a private developer and staff involved with Housing New Zealand Corporation's medium density housing development at Lynfield in Auckland.

2.23 The research and analytical process was assisted by the National Reference Group established for this project. It was also enhanced by the contribution of key government agencies that commented on the content of the report in earlier drafts and participated in the Work In Progress Seminar in February 2007.

### **3. DISABILITY PREVALENCE & HOUSING**

3.1 There is no easy way in which to forecast the level of disability prevalence in the immediate future. Our ability to measure prevalence is even more limited for a 2050 timeframe. Even measuring current disability prevalence is problematic, despite New Zealand having a long history of collecting disability related information.

3.2 The main data source on disability prevalence in the New Zealand population is the Statistics New Zealand Disability Survey conducted in 2001. An earlier household disability survey was conducted in 1996. In addition, two general questions on disability were included in the 1996, 2001 and 2006 censuses. As Statistics New Zealand (2003) points out even that data needs to be treated with caution. They note that there is systematic bias in surveys that tend to understate the level of disability among older people and mildly disabled people but possibly overstate moderate and severe disability.

3.3 The commonly accepted prevalence rate of disability of about 1 in 5 (20 percent of New Zealand's population) is based on the Household Disability Survey conducted by Statistics New Zealand in 2001 after the 2001 census. That data suggest that 15 percent of disabled adults are severely affected with 43 percent moderately affected. The main findings are:

- 743,800 people reported some level of disability in 2001, an increase of 41,800 since 1996 – 1997.
- An estimated 96 percent of people with disabilities live in households. The remainder live in residential facilities. Older people make up the large majority of disabled people in residential care.
- One in five Maori people and one in seven Pacific people report a disability. The difference between estimates for Maori, Pacific and the total New Zealand population are not statistically significant.
- Disability increases with age, with 54 percent of people aged 65 years and over reporting a disability.
- Ethnic disability rates by age group are statistically significant. Within each age group, the disability rates for Maori are higher than national rates. For example, 61 percent of Maori aged 65 years and over report a disability. Age-related disability rates for Pacific peoples vary across age groups, although disability rates within the older age groups are similar to those for the total New Zealand population.
- Boys are more likely to have a disability than girls (0 – 14 age group). At other age groups there is no statistically significant difference between the disability rates for males and females.

- Most disabled people have more than one disability (60 percent).
- The most common type of disability is some kind of physical disability (65 percent of adults). Sensory disabilities and 'other' disabilities are the next most commonly reported types of disability.
- An estimated 90,000 children have disabilities. Around 30,000 children have a sensory disability. Around 4,600 children (5 percent) having a limitation requiring the use of technical equipment such as a standing frame, wheelchair or artificial limb. Forty-one percent of children have a disability existing from birth.
- The leading cause of disability among adults living in households is a disease or illness (40 percent), followed by accident or injury (34 percent). The ageing process accounts for 18 percent of disabilities.
- In 2001, 42 percent of disabled adults were mildly affected, 43 percent were moderately affected and 15 percent were severely affected. The proportion of people with mild disabilities has decreased since 1996 – 1997.
- Disabled people are more likely to live in one-person households. This is nearly 121,000 people (18 percent).
- Disabled people are more likely to have no formal educational qualifications and are less likely to be in the labour force. They also tend to have lower personal incomes.
- Almost 245,000 disabled adults in households receive some assistance with everyday activities. Disabled women are more likely to receive assistance than disabled men.
- One third of disabled adults living in households report using some type of special equipment (207,200).

3.4 McDermott Miller (2005) have attempted to estimate the size and segmentation analysis of disabled people's demand for housing in New Zealand and estimate that:

- The number of modified dwellings is in the range of 52,000 – 97,000.
- 39,000-74,000 dwellings have modifications inside.
- 29,000-56,000 dwellings have modifications to assist entry and exit.
- HNZC supplies only a small percentage of modified dwellings.
- An estimated 28 – 53 percent of dwellings in which moderately or severely disabled adults live have been modified.
- The number of dwellings with an unmet need for inside home modification is estimated to be in the range 14,000 – 27,000.
- The unmet need for modification for access to the dwelling is estimated in the range of 10,000 – 19,000.
- Perhaps 45 – 50 percent of moderately or severely disabled adults live in unmodified homes and do not perceive a need for modification.

3.5 In coming to those estimates, McDermott Miller (2005) acknowledges that the total number of dwellings with unmet modification needs cannot be estimated with available data. By implication, however, they suggest that data deficiencies can be addressed and, if they are, current and future unmet housing demand among disabled people will be able to be met through targeted stock investment and redevelopment.

3.6 In our view, this is unlikely. Establishing disability prevalence at a single point, let alone forecasting into the future, has been characterised here and overseas by debate over both the validity and the reliability of disability prevalence measures and data. Internationally, prevalence estimates vary

significantly and there is on-going debate about the drivers and determinants of disability. However, it is generally agreed internationally that ageing populations and higher survival rates may be associated with higher prevalence of disability.<sup>1</sup>

- 3.7 New Zealand estimates of prevalence for moderate to severe disability are relatively high according to some prevalence forecasts. For instance, Harwood *et al.* (2004:253-255), who estimate disability prevalence for different country groups focusing only on the proportion of populations likely to become dependent because of what they describe as severe disability, provide prevalence estimates for the year 2000 from 4.4 percent to 5.1 percent. They suggest that the prevalence of dependency from severe disability will increase to 2010 and after, ranging from 5.3 percent to 7.6 percent in 2050.
- 3.8 Undertaking projections of disability prevalence into the future is, by definition, limited to extrapolations of historic trends or various cohort-component techniques within a framework of broader population projections generally provided through Statistics New Zealand's prevailing population projection scenarios. Those population projections in themselves have to be treated with caution, contingent as they are on assumptions about prevailing conditions around, for instance, migration growth and immigration policy.
- 3.9 In short, the very foundations of disability prevalence projections are fragile. The definitions and measurement of disability are contested and, by extension, so must be any disability data. The dynamics around impairment and disability are complex and strongly mediated by environmental and cultural conditions. In addition, disability prevalence projections are dependent on population projections and those, in themselves, have limitations. This is acknowledged by Statistics New Zealand (2003) and as Bajekal *et al.*, (2004) state in relation to international attempts to forecast disability prevalence, there "is no single 'gold standard' measure of disability. The multi-dimensional and dynamic nature of disability makes it inherently difficult to measure."
- 3.10 Disability prevalence data is unlikely to be robust enough for anything but broad trend analysis at the national level, while housing markets in New Zealand are extremely localised. It is difficult to see how, under those conditions, that refining national disability prevalence estimates are likely to allow for localised prevalence estimates that would generate closely targeted housing interventions. In addition, it is questionable whether it is desirable or useful to expend considerable resources on attempts to forecast housing demand by disabled people on the basis of increasingly refined disability data. Indeed, it could be argued that an undue focus on demand forecasting risks placing disabled people into a limited, potentially ghettoized, segment of the housing market.
- 3.11 In short, we have found that there are limitations in estimating and forecasting disability prevalence in a way that is useful for establishing demand for accessible housing. It can be broadly agreed that:

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<sup>1</sup> Even this is contested in some of the research literature reviewed in the working paper on disability prevalence that accompanies these research reports.

- The proportion of the population with some impairment to mobility is likely to increase with the ageing population, combined with higher survival rates for those with congenital impairment or impairment acquired through injury or illness.
- Impairment through injury or illness or congenital condition may happen to individuals or families in a wide variety of situations, localities, neighbourhoods or dwellings.
- The extent to which impairment is disabling to an individual will in part depend on the social and physical environment in which that individual is situated.
- Everyone lives in a dwelling, and dwellings and the performance of dwellings are a crucial part of any individual's well-being.
- Dwellings last a long time and some dwellings are more adaptable to change than others and will be able to accommodate the changes that individuals need from them.

3.12 The difficulties in forecasting disability prevalence does not imply, however, that the interface between disability and housing cannot be addressed. Indeed, internationally, there is a rising awareness that this interface is of critical importance for four reasons:

- i. There is a greater awareness that the homes and neighbourhoods in which people with physical disabilities live have profound impacts on their independence, their ability to be socially and economically active, their functionality, and their quality of life. In addition, it is increasingly recognised that the extent to which the dwellings in which people with disabilities live facilitate or inhibit daily life has impacts beyond the person with the disability. It also impacts on the quality of life and social and economic engagement of partners, children, parents, siblings and other family members.
- ii. There is emerging evidence to suggest that investment into functional dwellings reduces the costs of dependency and provision of support services for disabled people.
- iii. It is increasingly recognised that many are vulnerable to impaired mobility and the New Zealand housing stock does not currently provide functional dwellings for people and their families when their mobility is impaired. This is not simply a matter of increased disability prevalence. The line between being 'able-bodied' and being disabled is thin. All people are vulnerable to moderate to severe impairment of mobility, if only temporarily. Some have to manage that impairment over very long periods or permanently. As the prevalence of disability increases, the public exposure to problems generated by inaccessible public and domestic environments also increases, particularly as the vast majority of adults with moderate or severe disability live at home in the community.
- iv. Finally, it is also increasingly recognised that when the primary focus is placed on demand forecasting, disabled people are at risk of being a ghettoized segment of the housing market. There is an international movement towards focusing on the mainstream stock and the ways in which it can be made more cost-effectively adaptable to the dynamic needs of disabled people and their families.

## **Summary and Key Issues**

- 3.13 On the basis of our review of attempts to forecast disability prevalence we conclude that:
- Forecasting disability prevalence is inevitably associated with high levels of uncertainty.
  - That uncertainty reflects contested definitions and measurements and the complex dynamics that drive disability prevalence.
  - Because disability prevalence estimates and forecasts are unlikely to be robust except for broad trend analysis at the national level, they do not provide a basis for targeting home supply in the very localised New Zealand housing market.
  - Despite problems with generating precise prevalence forecasts there is international consensus that the prevalence of moderate to severe disability is increasing and will generate an increasing demand for accessible housing stock among disabled people and their families.
- 3.14 Instead of focusing on developing more and more sophisticated attempts at disability demand modelling, it is our view that the focus should be on making the mainstream housing stock accessible. The mainstream housing stock is the stock in which most New Zealanders live. That focus recognises that:
- Most disabled people live in ordinary homes and neighbourhoods.
  - The accessibility of ordinary homes and neighbourhoods profoundly impacts on the independence and productivity of disabled people and their families.
  - The line between being 'able-bodied' and being disabled is thin. All people are vulnerable to moderate to severe impairment of mobility, if only temporarily.

## **4. DISABLED PEOPLE AND THEIR HOUSING**

- 4.1 The experiences of disabled people that emerged in that research show that there is a considerable mismatch between the functionality of the stock in which disabled people and their families live and the functionality that disabled people and their families need. It is also clear that this mismatch persists even where modifications have been undertaken on a particular dwelling. Those problems suggest that the challenge of supplying accessible housing is not being adequately met, either through public or privately funded modifications. It also suggests that current design is not generating an adaptable, easily modified, disability friendly housing stock. In this section the experiences of disability people and families in relation to the housing stock is explored in detail.

### **Profile of Survey Participants**

- 4.2 The data on housing experiences and demand is drawn from the two surveys previously described and focus groups with physically disabled people and the parents of physically disabled people. One hundred and twenty-one individuals participated in the individual survey. For those individuals, the most common household size is two people. Couples-without-children households and sole-person households are the most common household type followed by couples-with-children households. Under one fifth of respondent households include children up to age 14 years. Over one-third of respondent households report the youngest household member is aged 50 years or older. Around two-thirds of participants in the individual survey earn

\$25,000 or less per annum, with over a third earning \$15,000 or less per annum. Two-fifths are employed in full or part-time work, while the majority are not in paid work.

- 4.3 The participants in the parent survey comprise a younger age group and generally have higher incomes than those in the individual survey. Thirty-one parents of children with a disability living with them completed the parent survey. Nineteen are located in the North Island, mostly in Auckland and Waikato regions, while 12 live in the South Island. Just over half the parents are in the 40 – 49 year age group, while around 29 percent are over 50 years of age. Over half the participants earn between \$30,000 and \$70,000. Almost two thirds are employed. One respondent does not work because of illness or disability.
- 4.4 The age of the disabled children currently living with their parents ranges from under four years, to the 30s. Four parents have disabled adult children living with them ranging from 20 – 39 years. Seven parents have more than one child with a disability living with them, and were asked to complete the questionnaire in relation to their oldest disabled child.
- 4.5 The average household size among the parents who were surveyed is just over four persons. By far the most common household type is couple with children; only five of the participants are sole parents. The majority of households comprise young children. Thirteen households have children aged under 10, and 23 have children under 15 living in the household.
- 4.6 The individual survey asked about the nature of the individual’s disability and asked for a self-estimate of support needs. The parent survey included similar questions for parents to answer about their disabled child. Most of those participating in the individual survey reported their disability was a result of a disease or illness, or a condition present at birth. The types of conditions and health problems resulting in respondents’ physical/mobility disability ranged from arthritis to paralysis, from spina bifida and cerebral palsy to back injuries caused in work accidents, to vision and hearing impairment. Many respondents have multiple health problems.
- 4.7 As Table 4.1 shows, the most common cause of disability reported in the individual survey was illness or disease (40.7 percent), conditions present from birth were the second most common cause of disability (28.3 percent) followed by accident or injury (25.7 percent).

**Table 4.1: Cause of Disability (Individual Survey)**

Cause of condition/health problem	Survey Respondents	
	n	%
A disease or illness	46	40.7
Condition present from birth	32	28.3
An accident or injury	29	25.7
Other	4	3.5
Unsure	2	1.7
<b>Total*</b>	<b>113</b>	<b>99.9</b>

\*8 missing cases with total percentage affected by rounding



- 4.8 The 29 participants whose condition was caused by an accident or injury provided more detail on the type of injury/accident, saying the condition was the result of: a motor vehicle accident (10); an injury or accident at work (7); an injury or accident at home (4); a sports injury (5), and other injury or accident (3).
- 4.9 Around three quarters of the individual survey respondents estimated their support needs as being medium or high (Table 4.2), and a significant proportion of respondents experienced difficulty undertaking everyday activities. Of those respondents who were able to undertake the activity three-fifths or more reported some level of difficulty with: Walking 300 metres; Walking up and down stairs; Carrying a 5 kilogram weight a distance of 10 metres; Standing for 20 minutes; Moving around their local town/city without assistance (see Table 4.3).

**Table 4.2: Self-estimate of Support Needs (Individual Survey)**

Level	Survey Respondents	
	n	%
Low support needs	27	24.1
Medium support needs	51	45.5
High support needs	34	30.4
<b>Total</b>	<b>112*</b>	<b>100</b>

\* 9 missing cases

**Table 4.3: Experience of Difficulty Undertaking Everyday Tasks\* Individual Survey**

Activity	Survey Respondents		
	Total participants undertaking activity	Number with difficulties	% undertaking activity with difficulties
Walking the distance around a rugby field without resting (approx 300m or 400yds)	51	34	66.6
Walking up and down a flight of stairs	60	43	71.6
Carrying something as heavy as a 5 kilo bag of potatoes while walking 10m to 30ft	56	41	73.2
Moving from one room to another	108	38	35.2
Standing for 20 minutes at a time	68	45	66.2
Moving around the house without assistance or modification to the house	90	40	44.4
Moving around the neighbourhood without assistance	74	39	52.7
Moving around local town/city without assistance	81	50	61.7

\* Multiple response

- 4.10 The age at which participants in the individual survey first had difficulty undertaking activities varied. For those who had lived with their condition since birth the majority reported they had always had difficulty doing the listed activity. Over two-fifths of respondents (59.1 percent) had first experienced difficulties aged 19 years or younger (Table 4.4).

**Table 4.4: Age When First Experienced Difficulty Undertaking Everyday Tasks\* (Individual Survey)**

Age	Survey Respondents	
	n	%
Always had difficulty	29	27.1
0-9 years	3	2.8
10-19 years	13	12.1
20-29 years	18	16.8
30-39 years	13	12.1
40-49 years	15	14.0
50-64 years	13	12.1
65 years or more	3	2.8
<b>Total*</b>	<b>107</b>	<b>100.1</b>

\* 14 missing cases with total percentage affected by rounding

- 4.11 Respondents in the parent survey reported that the most common cause of their child's disability was a condition present from birth, or illness or disease (see Table 4.5). The types of conditions and health problems resulting in the child's physical/mobility disability include muscular dystrophy, spina bifida, cerebral palsy, dysphasia, hip problems, ataxia, epilepsy, heart condition, hemiplegia, asthma, allergies, vision impairment, ADHD and autism. Some children have multiple disabilities, including intellectual and physical disability. Twenty six parents reported that their child has always had the disability. In only four cases was the child not living with the parent when he/she first became disabled.

**Table 4.5: Cause of Disability (Parents Survey)**

Cause of condition/health problem	Survey Respondents	
	n	%
Condition present from birth	17	54.8
A disease or illness	10	32.3
Unsure	2	6.5
An accident or injury	1	3.2
Other	1	3.2
<b>Total</b>	<b>31</b>	<b>100</b>

- 4.12 The majority of parent survey respondents (26) estimate their child's support needs as being high (Table 4.6). Most parents indicate that their child has difficulty with undertaking everyday activities, or does not do those activities.

**Table 4.6: Parent's Estimate of Child's Support Needs (Parent Survey)**

Level	Survey Respondents	
	n	%
High support needs	26	83.9
Medium support needs	4	12.9
Low support needs	1	3.2
<b>Total</b>	<b>31</b>	<b>100</b>

### **Current Housing**

- 4.13 Over two-thirds (70.0 percent) of respondents to the individual survey are owner occupiers. A similar proportion was reported in the parent survey with twenty-four of the participants in the parent survey being owner occupiers and seven in rental accommodation. This is similar to the prevailing levels of

owner occupation in New Zealand as a whole, although it may be a higher proportion than that reported in the 2001 Household Disability Survey<sup>2</sup>.

- 4.14 Of the 36 participants in the individual survey who are renting, there is a mix of tenants in both private and public rentals. In the individual survey the most common landlord type is a private person or trust followed by a tenancy with Housing New Zealand Corporation. The most common rental situation reported in the parent survey is Housing New Zealand Corporation tenancy. The majority of renters in both the parent survey and in the individual survey expressed a desire to own their own home. This is consistent with aspirations for home ownership reported in surveys with other population groups.
- 4.15 The most common house type among respondents to the individual survey was a detached single-story dwelling, followed by a detached multi-story dwelling, and a purpose built flat. Nearly two-thirds (63.9 percent) of respondents report living in a detached single-story dwelling (Table 4.7). Over two thirds of the dwellings reported in the parent survey were single storey houses but almost a quarter of the houses reported in the parent survey were multi-storey houses. None of the dwellings reported in the parent survey were described as purpose built.

**Table 4.7: House Type\* (Individual Survey and Parent Survey)**

House type	Individual Survey Respondents		Parent Survey Respondents
	n	%	n
Detached single-storey house	76	63.9	21
Detached multi-storey house	13	10.9	7
Purpose built flat	12	10.1	-
Other	9	7.6	1
Semi-detached single-storey house	7	5.9	1
Flat in a converted building	1	0.8	-
Terrace house	1	0.8	-
<b>Total</b>	<b>119</b>	<b>100</b>	<b>30</b>

\* 2 missing cases in individual survey

### **Current House Condition and Performance**

- 4.16 There is a preoccupation with the specialised adaptation and modification of housing for disabled people, while the performance of the dwelling in relation to condition and comfort is ignored. Yet the condition and comfort of dwellings in which disabled people live is critical.
- 4.17 The ability to keep warm is frequently reduced for disabled people and many remain within their houses for a large number of hours within the day, so the ambient temperature must be comfortable and stable day and night. Consequently, the performance of the dwelling in generating stable and comfortable indoor environments over the 24 hours is even more important for disabled people and their families than for other people. Similarly, disabled people and their families' ability to maintain the condition of their dwellings may be compromised where their additional daily and on-going costs

<sup>2</sup> The 2001 Household Disability Survey (Ministry of Health 2004) reported that 58 percent of adults with disability and 49 percent of children with disability were living in a home owned or partly owned by the usual residents. However, that report also reported that the house tenure status of 19 percent of adults and 17 percent of children with disability could not be identified. Those respondents may have been living in owner-occupied housing.

associated with disability may reduce the income available to undertake repairs and maintenance.

- 4.18 For those reasons, survey participants were asked to comment on the warmth and damp of their houses as well as rating the overall condition of their homes. That data clearly shows that for substantial minorities of the survey participants, their dwellings were not performing adequately.
- 4.19 Whether in the parent survey or in the individual survey, only minorities reported that they achieved comfortable winter temperatures all the time. In the case of the parent survey around a quarter reported achieving comfortable winter temperatures only some of the time. Among the individual survey respondents, a similar proportion (22.5 percent) reported that they only some of the time or never achieved comfortable winter temperatures (Table 4.8).

**Table 4.8: Respondents' Perception of Attained Indoor Winter Temperatures\* (Individual and Parent Survey)**

Is heating system warm enough in winter?	Parent Survey		Individual Survey	
	n	%	n	%
Yes, always	9		43	35.8
Yes, most of the time	13		50	41.7
Only some of the time	8		21	17.5
No, never	0		6	5.0
<b>Total</b>	<b>30</b>		<b>120</b>	<b>100</b>

\* 1 missing case in individual survey

- 4.20 Notably the surveys found an overwhelming reliance on electricity for heating. Among the individual survey respondents, over half reported primarily using electricity for space heating. The Household Energy End-use Project (HEEP) study has found that New Zealand's warmest houses are those using enclosed solid fuel burners (Isaacs N. *et.al.*, 2006).
- 4.21 As Table 4.9 shows, the individual survey found substantial dissatisfaction with the ability to heat the whole house and the cost of heating and there is even more pronounced dissatisfaction among those participating in the parent survey (Table 4.10).

**Table 4.9: Satisfaction with Heating System (Individual Survey)**

Aspects of the Heating System	Satisfied		Neither Satisfied or Dissatisfied		Dissatisfied	
	n	%	n	%	n	%
Type of heating (n=115)	80	69.6	19	16.5	16	13.9
Running costs (n=114)	47	41.2	22	19.3	45	39.5
Amount of heat (n=113)	75	66.4	18	15.9	20	17.7
Control over level of heat (n=116)	84	72.4	17	14.7	15	12.9
How quickly home can be heated (n=113)	77	68.1	16	14.2	20	17.7
Heating throughout all areas of the home (n=113)	53	46.9	15	13.3	45	39.8
Ease of use (n=114)	87	76.3	14	12.3	13	11.4

**Table 4.10: Satisfaction with Heating System (Parent Survey)**

Aspects of the Heating System	Satisfied	Neither Satisfied or Dissatisfied	Dissatisfied
Type of heating (n=31)	24	3	4
Running costs (n=31)	16	3	12
Amount of heat (n=30)	20	4	6
Control over level of heat (n=30)	21	4	5
How quickly home can be heated (n=30)	19	2	9
Heating throughout all areas of the home (n=30)	16	2	12
Ease of use (n=30)	21	3	6

4.22 Both surveys indicated that the majority of respondents considered that their dwelling was in an average or better condition. However, between two thirds and three quarters of respondents to the individual survey and the parent survey respectively described significant performance problems with their dwellings. The pattern in the two surveys is similar. In the individual survey common problems experienced were:

- steamed up windows
  - bedrooms (69.6 percent)
  - kitchen (54.4 percent)
  - lounge (53.2 percent)
  - dining (31.6 percent)
  - bathroom (53.1 percent)
  - laundry (35.4 percent)
- steamed up walls
  - bathroom (41.8 percent)
  - laundry (21.5 percent)
  - kitchen (17.7 percent)
  - bedrooms (12.7 percent)
- damaged paint
  - bathroom (21.5 percent)
  - bedrooms (16.9 percent)
  - laundry (12.7 percent)
- wall mould
  - bathroom (17.7 percent)
  - bedrooms (13.9 percent)
- staining
  - bathroom (10.1 percent).

4.23 A few participants in the surveys explained how the physical condition and performance of their housing impacted on them:

*I cannot live in houses which have concrete floors ... I think that each retirement village should have to build a percentage of houses with wooden floors to cater for people who have arthritis or foot problems. I think that elderly people should get electricity at a special lower charge to enable them to keep the house warm to prevent problems with circulation etc (Disabled person).*

*We have an unheated house, which adds to the pain and side effects from living in a very cold and damp home. We need additional alternations to make the house warm and secure, and safe to live in (Disabled person).*

*Being on a benefit, I have cut down on use of heating because I can't afford it (Disabled person).*

4.24 The Northland focus group observed that house condition can be a critical determinant of whether a person can access adaptations. Some parts of Northland are characterised by sub-standard housing that does not meet the criteria for housing modification approval with the effect that a disabled person is doubly exposed to a dysfunctional dwelling.

### **House Features Facilitating Accessibility**

4.25 Both the individual and the parent surveys showed that very high proportions of participants have homes with special features designed to assist the functionality of the dwelling for a disabled person.

4.26 Ninety-one percent of the participants in the individual survey reported that their current house had accessibility features while thirty of the thirty-one participants in the parent survey reported accessibility features in their current home. Table 4.11 shows that the most common features assisting entry and exit to and from dwellings are around ramps and level driveway and street access. Other features that can be of assistance to disabled people's exit and egress are less common.

**Table 4.11: Features to Assist Entry/Exit \* (Individual Survey)**

House Features	Individual Survey (N=90)	
	n	%
Easy-to-get-at driveways, ramp or street level entrances, one level no steps	68	75.5
Garage or carport which meets disabled person's needs	35	38.9
Hand rails at steps or doorway	30	33.3
Widened doorways	31	34.4
Easy-to-get-at passenger drop off or pick up areas	22	24.4
Automatic or easy-to-open doors	17	18.9
Lever door handles	17	18.9
Elevator or lift device	12	13.3
Other	17	18.9

\* Multiple response

4.27 It is notable that in the parent survey, features such as widened doorways and easy access passenger drop-off areas were more prominent features of the current home (Table 4.12).

**Table 4.12: Features to Assist Entry/Exit\* (Parents Survey)**

House Features	Parent Survey (N=28)	
	n	%
Easy-to-get-at driveways, ramp or street level entrances, one level no steps	24	85.7
Widened doorways	14	50.0
Easy-to-get-at passenger drop off or pick up areas	14	50.0
Garage or carport which meets disabled person's needs	8	28.6
Lever door handles	7	25.0
Hand rails at steps or doorway	5	17.9
Elevator or lift device	3	10.7
Automatic or easy-to-open doors	2	7.1

\* Multiple response

- 4.28 Twenty-six parents reported that there are special features inside their home to assist their disabled child. The most common modifications reported inside the home are, wet area showers, easy-to-get at toilets and widened doorways or hallways. A large majority (83.5 percent) of individual survey participants have special features inside their current home as a result of a condition or health problem (Table 4.13). Those features are similar to those reported in the parent survey.

**Table 4.13: Accessibility Features Inside the Home\* (Individual Survey)**

Modifications	Individual Survey (N=100)	
	n	%
Grab or hand rails	75	75.0
Wet area shower	63	63.0
Easy-to-get at toilet	52	52.0
Widened doorways or hallways	38	38.0
Level door handles	22	22.0
Lowered benches or sinks	19	19.0
Lowered light switches or power points	18	18.0
Emergency call system	18	18.0
Automatic or easy-to-open doors or windows	14	14.0
Elevator or lift device	7	7.0
Visual or flashing alarms	7	7.0
Bed or bath lifts	5	5.0
Audio warning device	4	4.0

\* Multiple response

### ***Needed House Features to Facilitate Accessibility***

- 4.29 A large minority of disabled people participating in the individual survey (46.3 percent) reported that their houses did not meet their needs. They identified a range of features required to adequately enter or exit the home (Table 4.14). The features most commonly identified as being needed are easy to get at driveways, ramps and street level entrances followed by a garage/carport that meets disabled peoples needs.

**Table 4.14: Features Needed to Assist Entry/Exit\* (Individual Survey)**

Entry/Exit Accessibility Features	Individual Survey (N=56)	
	n	%
Easy-to-get-at driveways, ramp or street level entrances, one level no steps	21	37.5
Garage or carport which meets disabled person's needs	19	33.9
Automatic or easy-to-open doors	15	26.8
Widened doorways	10	17.9
Hand rails at steps or doorway	8	14.3
Easy-to-get-at passenger drop off or pick up areas	8	14.3
Lever door handles	3	5.4
Elevator or lift device	2	3.4

\* Multiple response

- 4.30 Survey and focus group participants made specific mention of the external modifications they needed, including ramps, widened and external entranceways, access outside to clothesline and wider pathways, roof over entranceway, and an automatic door opener. Comments included:

*Front steps are not wide enough and there are and cannot be any hand rails. Someone is going to fall and break something ... when the power goes off the lift cannot be operated. In one case I had to stay in my vehicle for two hours waiting for the power to come on so I could get inside (Disabled person).*

*I would love to have an automatic door latch (Disabled person).*

*I would look to having future housing with wider doorways, easy access leaving the house, going to the clothesline. I prefer a flat area (Disabled person).*

*As arthritis worsens and age increases I feel handrails at front and back door would be of great help (Disabled person).*

- 4.31 Several people mentioned the need for wheelchair accessible entrances to both the back and front of their houses:

*Mean spirited nature of ACC means I do not have emergency rear access as the back steps are too large for me to exit safely.*

*Only one entry/exit will lead to a death eventually!*

- 4.32 Around half the respondents (50.4 percent) to the individual survey identified additional special features inside their home they needed. The features most commonly identified as needed by survey respondents are wet area showers, automatic or easy-to-open doors/windows and widened doorways or hallways (Table 4.15).

**Table 4.15: Modifications Needed Inside the Home\* (Individual Survey)**

Modifications	Individual Survey (N=61)	
	n	%
Wet area shower	24	39.3
Automatic or easy-to-open doors or windows	20	32.8
Widened doorways or hallways	17	27.9
Lowered benches or sinks	15	24.6
Lowered light switches or power points	14	23.0
Easy-to-get at toilet	13	21.3
Grab or hand rails	9	14.8
Level door handles	7	11.5
Emergency call system	7	11.5
Bed or bath lifts	5	8.2
Visual or flashing alarms	4	6.6
Audio warning device	1	1.6
Elevator or lift device	1	1.6

\* Multiple response

- 4.33 Comments from disabled people about internal modifications they still need emphasised their concerns with safety, appearance of their home and improving their quality of life within the house. Needed modifications that both survey and focus group participants identified included:

- widened door ways
- adjusting the height of sinks and benches
- wet area bathroom and other bathroom modifications
- easy to get at toilet
- access to kitchen
- handrails.



4.34 Typical comments were:

*The system that would only allow two doorways to be widened is ridiculous. There is significant damage to the house simply because the doorways etc are not big enough. I cannot move around with ease and I am in the house 24 hours a day, seven days a week (Disabled person).*

*Not having a wet area bathroom is extremely restrictive and even dangerous. Not having an adequate toilet has caused me to slip and hurt myself (Disabled person).*

*We plan to stay at our current address. We need a 'wet floor shower' (Disabled person).*

*We would like to build a ramp off our front door so our son can 'view the world' from outside (Parent).*

*If there is a power cut or frost he is unable to access the hoist at the front door. If he is inside and there is a fire he cannot get out (unless I throw him down the steps). If he is outside I am unable to get him in (Parent).*

### **The Neighbourhoods**

4.35 While there are clear issues around house performance, there is relatively high satisfaction with the neighbourhoods in which those houses are situated. Disabled people and their families are very aware that independence and being able to maintain a good quality of life includes not only appropriate and functional housing, but also an accessible and safe neighbourhood.

4.36 Some survey participants emphasised that their choices about housing have explicitly taken into account the suitability of the neighbourhood. Good housing for them included positive neighbourhood environmental characteristics, such as closeness to facilities, public transport and support networks, safety and privacy. Indeed, one parent commented quite explicitly on the importance of the neighbourhood in her decision to remain in their house, even though it is not ideally adapted.

*I have difficulty finding a suitable house, i.e. that I can go outside of and use the neighbourhood without needing to use the car ... it is important to me that I do not share a drive with neighbours, I need to have a sense of personal space ... I do not want to live in a 'ghetto' of one type of person, e.g. all disabled people (Disabled person).*

*Often accessible accommodation is in state housing areas which aren't often safe for disabled people (Disabled person).*

*Distance from shops/facilities etc leads to increased transport costs – we are taxi dependent completely (Disabled person).*

*I would love to shift somewhere else with more stable neighbours (Disabled person).*

*Inaccessibility to shops etc is often affected by roading and footpath conditions (Disabled person).*

*We have chosen to shift to a suburb closer to our places of work, and because there was no suitable housing, we decided to rent on the open market and modify the house slightly, ramp etc, with the landlord's approval (Disabled person).*

*We have looked at modified housing but it was far away from my support base and I have chosen to stay locally over and above a sense of social isolation (Parent).*

- 4.37 Most participants in the individual survey report that they are able to easily get to, and use, key services in their neighbourhood or surrounding area. Over two-thirds of respondents report easy access to food suppliers, medical facilities, pharmacies, banks, post offices and open spaces/parks. Public transport was considered the least accessible services, with less than a third of individual survey respondents reporting they can easily get to and use buses or trains (Table 4.16). A similar pattern was evident among those that responded to the parent survey.

**Table 4.16: Number of Respondents Reporting Easy Access to Services (n=118)\* (Individual Survey)**

Easily Accessed Neighbourhood Services	Individual Survey	
	n	%
Dairy, grocery or supermarket	92	78.0
Health centre or doctor	89	75.4
Pharmacy	87	73.7
Bank and/or ATM	86	72.9
Post office	86	72.9
Public park or open space	84	71.2
Church, marae, community centre or meeting place	78	66.1
Other recreational/sports facility e.g. swimming pool	62	52.5
Buses or trains	33	28.0

\* 3 missing cases

- 4.38 Only participants in the individual survey were asked about participation in their neighbourhood. Over half the reported that they know some or many of the people living in the neighbourhood and area nearby (Table 4.17). The vast majority of respondents (85.7 percent) report getting on with their immediate neighbours 'very well' or 'fairly well'.

**Table 4.17: Number of People Known in Neighbourhood and Surrounding Area\* (Individual Survey)**

Knowing the Neighbours	Individual Survey	
	n	%
Know a few people in the neighbourhood/area nearby	45	37.8
Know some people in the neighbourhood/area nearby	35	29.4
Know many people in the neighbourhood/area nearby	33	27.7
Do not know people in the neighbourhood/area	4	3.4
Would like to know people in the neighbourhood/area	2	1.7
<b>Total</b>	<b>119</b>	<b>100</b>

\* 2 missing cases

- 4.39 In addition, over three-fifths of individual survey respondents (62.2 percent) reported that they have supported local neighbourhood or local community groups since living in the neighbourhood. Of those, over three-quarters (76.7 percent) report that their involvement in the last twelve months has been about once a month or more.

4.40 There are other indicators of neighbourhood integration. The majority of respondents (83.9 percent) to the individual survey report that if they needed a favour they could find someone in the neighbourhood to help. Over two-thirds of respondents believe the neighbourhood is friendly, feel they belong to the neighbourhood, and are proud of their neighbours. Over half report people from different backgrounds get on well together in the neighbourhood and that their neighbourhood is a place where neighbours look out for each other (Table 4.18).

**Table 4.18: Reliance on and Perception of Neighbours (Individual Survey)**

Statement	Individual Survey		
	Agree %	Neither %	Disagree %
If I needed a favour, I could rely on someone in this neighbourhood to help me	83.9	5.1	11.0
This is a friendly neighbourhood	74.6	14.0	11.4
I am proud of my neighbourhood	73.3	19.8	6.9
I feel that I belong to this neighbourhood	73.0	16.5	10.4
Compared with other neighbourhoods, this one has many advantages	69.0	21.6	9.5
This is a place where neighbours look out for each other	66.4	15.5	18.1
People from different backgrounds get on well together in this neighbourhood.	54.3	31.9	13.8
My local neighbourhood reflects the type of person I am	48.3	32.8	19.0
I feel that I am unable to influence decision in the neighbourhood	30.9	34.5	34.5

### ***Housing Pathways and Futures***

4.41 When first disabled, over two-fifths of respondents to the individual survey (44.8 percent) were living at home with their parents and around a third were owner-occupiers (Table 4.19). Participants in the individual survey and in the parent survey reported profound impacts on their housing situation of becoming disabled or having a disabled child.

**Table 4.19: Housing Situation when First Disabled \* (Individual Survey)**

When 1 <sup>st</sup> disabled lived...	Individual Survey	
	n	%
At home with parents	52	44.8
Owner occupier with partner	18	15.5
Owner occupier with partner & children	16	13.8
Sole renter	10	8.6
Sole owner occupier	3	2.6
Owner occupier with others	2	1.7
Renter with partner	3	2.6
Renter with partner & children	2	1.7
Other	10	8.6
<b>Total</b>	<b>116</b>	<b>99.9</b>

\* 5 missing cases

4.42 The majority of participants in the parent survey (22) moved house or modified the house they were living in when their disabled child was born or became disabled. Among the respondents to the individual survey, over half (64 respondents of 121 respondents) said that they had to move or modify the

house they were living in at the time they were first disabled. Of those who had to make changes to their living situation as a result of the disability:

- over three-fifths (62.9 percent) modified their existing house
- around a fifth moved to a more suitable house (i.e. single level, low maintenance, smaller) and then made modifications to that new house if required
- around ten percent moved to an existing modified rental or owner occupied property.

4.43 Table 4.20 shows the number of years respondents to the individual survey have been living in their current residence. Individual survey respondents' duration of residence in their current home ranged from 1 month to 38 years, with a mean duration of 10.3 years and a median duration of 7 years. Around 14 percent had lived in their current home one year or less while 15 percent had been living in their home for 21 years or longer. Over two-fifths (43.2 percent) had lived at their current home less than five years.

**Table 4.20: Duration of Residence\* (Individual Survey)**

Duration in years	Individual Survey	
	n	%
1 year or less	17	14.4
2 – 5 years	34	28.8
6 – 10 years	20	16.9
11 – 20 years	29	24.6
21 years or more	18	15.3
<b>Total</b>	<b>118</b>	<b>100</b>

\* 3 missing cases

4.44 The residence duration reported by parents showed a very similar pattern, with duration ranging from one month to 38 years and a mean duration of 8 years. The median duration of 7 years is precisely the same as that reported in the individual survey (Table 4.21).

**Table 4.21: Duration of Residence (Parent Survey)**

Duration in years	Parent Survey
	n
1 year or less	5
2 – 5 years	6
6 – 10 years	13
11 – 20 years	6
21 years or more	1
<b>Total</b>	<b>31</b>

\* 3 missing cases

4.45 One third of participants in the individual survey said they expected to move from their current home within the next few years. The most common reasons for moving were the house not meeting their needs, for instance a changing family size or wanting a larger or smaller house (32.5 percent) or trading up/wanting a better house (20.0 percent). Other reasons for planned moves included affordability (12.5 percent) and wanting to change tenure from rental to ownership (7.5 percent). Three respondents said they wanted to move because they dislike the neighbourhood or wished to move to a better area.

- 4.46 Most parents do not expect to move (27 of 31 survey participants). The four who wish to move are looking for a larger property, to move into more permanent accommodation, to buy their own home or they are dissatisfied with their neighbourhood. In some cases moving rather than modification was the main strategy for attempting to find a functional living environment. While over half the parents reported staying in the house they moved to or modified when a child was first disabled, eight parents reported further moves, including one family that reported 10 moves.
- 4.47 What is notable about the duration of the residence data is the diversity of duration times. It cannot be assumed that disabled people and their families are going to stay for long periods in their current houses any more that it can be assumed that they will have high levels of residential movement. Disabled people and their families have movement patterns that are as diverse as other families and households.
- 4.48 The diversity of residential duration patterns evident in this data suggests the need to focus on the suitability of the mainstream housing stock to cost-effective adaptation and to optimising the accessibility of the housing stock in general to disabled individuals and their families. It also suggests that house adaptation and modification policy settings and funding regimes that do not take into account the residential movement needs of disabled people and their families are likely to not only reduce the independence of disabled people but contribute to the social and economic marginalisation of disabled people and their families.

### ***Modifying Houses***

- 4.49 The majority (83.6 percent) of individual survey participants whose dwellings had special enabling features reported that those features had been the result of customised modifications. Most participants, particularly respondents to the parent survey, saw the process of house adaptation and modification as an on-going one. A third of the parents reported that they have undertaken a series of house modifications. Eight parents reported 2-3 modifications and one reported eight modifications.
- 4.50 Table 4.22 shows that customised modifications are universal for highly specialised equipment such as bed or bath lifts. But even where features could be easily included in the design of any house, disabled people and their families were required to undertake modifications to achieve them. Obvious examples are: wet area showers, wider doorways and halls, lowered light switches and power points and lower level door handles.
- 4.51 This pattern was also evident among the 27 of 31 parent survey participants who reported that enabling features in their dwellings had been achieved through adaptations made specifically for their disabled child. Parents reported that the features most likely to have been made specifically for their disabled child were wet area shower, easy to get at toilet and bed/bath lift (Table 4.23).

**Table 4.22: Number of Modifications Specifically for the Respondent\* (Individual Survey)**

Feature	Individual Survey	
	Individuals Reporting feature	% Achieved through Modification
Bed or bath lifts	5	100.0
Lowered benches or sinks	19	94.7
Wet area shower	63	77.8
Widened doorways or hallways	45	71.1
Grab or hand rails	79	70.9
Lowered light switches or power points	18	66.7
Elevator or lift device	13	61.5
Easy-to-get at toilet	52	61.5
Easy to get at driveways, ramps or street level entrances	68	50.0
Emergency call system	18	50.0
Automatic or easy-to-open doors or windows	24	41.7
Level door handles	27	37.0
Visual or flashing alarms	6	33.3
Audio warning device	3	33.3
Easy-to-get-at passenger drop off or pick up areas	22	31.8

\* Multiple response

**Table 4.23: Number of Modifications Specifically for the Respondent\* (Parents Survey)**

Feature	Parents Reporting feature	% Achieved through Modification
Wet area shower	24	100.0
Lowered light switches or power points	2	100.0
Elevator or lift device	3	100.0
Bed or bath lifts	6	83.3
Easy-to-get at toilet	16	81.3
Widened doorways or hallways	14	78.6
Grab or hand rails	10	70.0
Level door handles	7	57.1
Easy to get at driveways, ramps or street level entrances	24	54.2
Automatic or easy-to-open doors or windows	2	50.0
Easy-to-get-at passenger drop off or pick up areas	14	42.8

\* Multiple response

4.52 Focus group participants reported a wide range of house modifications, including:

- Outside the house:
  - Ramps, decking and other modifications to enable level access to the dwelling
  - Railings
  - Adaptations to garages and carports to accommodate a wheelchair accessible vehicle
  - Driveway access
  - Covered entranceway
  - Lift into house
  - Electronic controlled front door

- Inside the house:
  - Wet area shower
  - Adaptations to bathroom and toilet
  - Adaptations to bedroom
  - Widened halls and doorways
  - Durable flooring to accommodate wheelchair use
  - Installation of ceiling hoist
  - Handrails
  - Safety glass
  - Space for equipment storage
  - Accessible light switches

Many of those modifications were also reported in the surveys.

- 4.53 It is notable that some households have made extensive adaptations, including in a few cases, disabled participants reporting that they have purpose-built houses for themselves. Similarly, a few of the parents reported building a house specifically to meet the needs of their disabled child. Those participants said they had funded all or some of the modifications required.
- 4.54 It is also evident from the individual survey that undertaking dwelling modifications was an on-going experience for many disabled people, in part because people move. 43.8 percent of participants in the individual survey reported at least one residential move since their first house modification was done. Just over half made only one or two moves, but over one third had moved between three and six times. The average number of modifications done by people who moved once or twice was 2.5. The average number of modifications done by those who moved between three and six times was 2.1.
- 4.55 Moving house, however, is a relatively minor driver of modifications. Indeed, the number of times modifications that were done appears to bear little relationship to the number of moves. In the individual survey, those who moved only once or twice reported the most number of modifications; one person who moved once had seven modifications, as did one person who moved twice. The main drivers of repeated modification appear to be: changing life stages and a tendency to 'under-adapt' or under-modify dwellings and a consequent need for further modifications.
- 4.56 Parents of children with disabilities were especially concerned about meeting their child's changing needs as they age and assisting their growing independence and involvement in family and domestic activities. The financial implications of moving to a more suitable house or getting additional modifications are often a source of worry, as indicated by the following comments from the parents survey and focus groups:

*We now need to put on an extra bedroom. This is causing major issues with funding.*

*We have a great need for a bigger house but I do not think that we would get funding to alter another house if we moved so we do not even contemplate moving.*

*As she grows older and bigger, other needs may arise.*

*Most housing modifications are made when the child is young, do not allow for growth ... once he got an adult wheelchair he couldn't fit in the front door.*

*As my son grew we needed a bigger and more open plan home for him and all the equipment.*

- 4.57 A number of factors were identified by survey and focus group participants as contributing to persistent unmet need and the successive attempts at making their dwellings functional through modifications. They are problems of:
- affordability
  - lack of adequate information
  - lack of decision-making power, and
  - difficulties in works contracting and quality.
- 4.58 The most pervasive barrier to meeting respondents' unmet needs for modifications was reported as cost. Over half the participants in the individual survey reporting unmet need for modifications identified that desired modifications were unaffordable. But as Table 4.24 shows, there were other barriers as well for disabled people. It is notable that the parent survey showed that lack of information is a significant barrier to accessing modifications (Table 4.25).

**Table 4.24: Barriers to Obtaining Modifications \* (Individual Survey)**

Reasons	Features for entry/exit (n=56)		Features inside the home (n=60)^	
	N	%	N	%
Too costly/can not afford it	29	52.7	32	53.3
Feature is only occasionally needed	8	14.5	6	10.0
Current accommodation not suitable for modification	8	14.5	2	3.3
Did not know I could apply for financial help or where to get it	7	12.7	11	9.3
Landlord not willing	6	10.9	5	4.2
Did not know feature existed	5	9.1	5	8.3
Condition is not serious enough	5	9.1	4	6.7
Do not know where to get feature	4	7.3	6	10.0
Applied for financial help but not eligible/funding refused	6	10.9	15	10.0

\* Multiple response ^ 1 missing case

**Table 4.25: Barriers to Obtaining Modifications \* (Parents Survey)**

Reasons	Features for entry/exit (n=16)		Features inside the home (n=16)	
	N	%	N	%
Too costly/can not afford it	7	43.8	11	68.8
Did not know I could apply for financial help or where to get it	4	25.0	4	25.0
Applied for financial help but not eligible/funding refused	3	18.8	6	37.5
Landlord not willing	3	18.8	2	12.5
Did not know feature existed	3	18.8	2	12.5
Do not know where to get feature	2	12.5	3	18.8
Current accommodation not suitable for modification	2	12.5	2	12.5
Condition is not serious enough	1	6.3	1	6.3
Feature is only occasionally needed	0	0.0	3	18.8

\* Multiple response



- 4.59 Those who have received funding from ACC (16 in the individual survey) and ACC recipients in focus groups reported barriers to getting modifications that were quite different to the rest of those in the surveys and focus groups. While overall the most identified barrier was cost, and lack of information also figured as a key issue, none of those receiving ACC funding reported that cost or lack of information were major barriers. The main barriers to getting modifications that they identified were:
- The modification was only needed occasionally
  - Unsure how long will stay in the house, therefore funding has not been approved
  - ACC not willing to fund the needed modification (e.g. gas hot water rather than electricity; widened doorway to child's bedroom for disabled parent's access; automatic door opening; lowered kitchen bench).
  - Need for the modification was not identified at the time the needs assessment was done, and now condition has deteriorated to the extent that the modification is needed
  - Have not got around to getting the needed modification
  - Have not asked for the needed modification
  - Waiting for ACC funding to come through

### ***Affordability Barriers***

- 4.60 In relation to affordability, it should be noted that the surveys and the focus groups indicated high levels of self-funding of modifications and adaptations. Many commented that they took on debt to fund modifications.

*I have started to provide safe ramp access ... but we can't afford to do more at present (Disabled person).*

*My parents have funded all alterations, but they got sick of it and in the most recent move, we applied for funding (Disabled person).*

*People go ahead and get it done because they need it and the system just takes too long (Disabled person).*

- 4.61 The majority of participants in the surveys received financial assistance for adaptations, however, the majority also reported they had financed a proportion of their adaptations themselves.
- 4.62 In the individual survey, of the 92 respondents whose current home has some form of modification specifically for them, over two-thirds (72.5 percent) received financial assistance to undertake the alterations. The most common source for funding assistance was reported as derived from the health budget. Although disability funding is in fact administered by the Ministry of Health, survey respondents associated that funding with a variety of health agencies or disability service providers<sup>3</sup> (Table 4.26). A quarter of respondents had received financial assistance from ACC, with other funding coming from extended family, government agencies and other sources.

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<sup>3</sup> These are self-reported funding categories. Many respondents were not clear that the Ministry of Health is the funder and that Enable and Accessible are contracted by the Ministry to manage the provision of house modification services.

**Table 4.26: Reported Source of Financial Assistance for Alterations/Adaptations\* (Individual Survey)**

Source of financial assistance	Individual Survey	
	n	%
Ministry of Health/DHB/Enable/AccessAble	40	62.5
ACC	16	25.0
Family trust/family members	6	9.4
Ministry of Social Development	3	4.7
HNZC	2	3.1
Other	4	6.3
Unsure	2	3.1

\* Multiple response ^ 2 missing cases

- 4.63 The amount of financial assistance respondents report receiving ranged from \$40 to an estimated \$400,000 for a purpose built house. The median amount of assistance received is \$8,500 while the mean is \$30,158.
- 4.64 Fifty-three respondents to the individual survey reported that they personally paid for or contributed to the cost of the alterations. Of those, 39 provided an estimate of the amount they had contributed, ranging from \$40 to \$100,000. The median amount personally contributed was \$3,000 while the average amount personally contributed was \$13,353. The most common source of personal funds was savings, followed by wages and borrowings (Table 4.27).
- 4.65 Although 16 reported receiving assistance from ACC (which can meet the full cost of modifications), 10 of those also reported that they had personally paid for some of the costs of modifications. The sums they paid ranged from \$1,000 - \$30,000.

**Table 4.27: Consumer Funding of Alterations/Adaptations (Individual Survey)**

Source of Personal Funds for House Modifications	Individual Survey	
	n	%
Savings	30	56.6
Out of income	21	39.6
Took out a loan/extended my/our mortgage	14	26.4
Compensation lump sum (ACC)	2	3.8
Other	6	11.3

\* Multiple response

- 4.66 Respondents were also asked a general question about who had funded modifications to previous houses. A number of respondents had lived in several homes with alterations/adaptations or made a number of different sets of alterations successively at a previous house. The most common source of funding was from health agencies<sup>4</sup>, followed by personal savings, and ACC funding (Table 4.28).

<sup>4</sup> These are self-reported funding categories. See Footnote 3.

**Table 4.28: Funding of Previous Alterations/Adaptations\* (Individual Survey)**

Source of financial assistance	Individual Survey	
	n	%
Ministry of Health/ DHB/Enable/Accessible	33	45.5
Self/partner	16	29.1
ACC	13	23.6
Family trust/extended family members	5	5.5
Other	7	36.4

\* Multiple response ^ 8 missing cases

- 4.67 In the parent survey, of the 27 people whose current home has some form of modification specifically for their child, 20 received financial assistance to undertake the alterations. The most common source for funding assistance was from the health budget through Ministry of Health/DHBs or one of the Ministry's disability funding providers<sup>5</sup> (Table 4.29). Fewer parents received financial assistance from ACC, MSD/WINZ, HNZC and family trusts.

**Table 4.29: Financial Assistance with Alterations/Adaptations \* (Parent Survey)**

Source of financial assistance	Parent Survey
	n
Ministry of Health/DHB/Enable/AccessAble	15
Ministry of Social Development	3
ACC	2
HNZC	1

\* Multiple response ^ 1 missing cases

- 4.68 The amount of financial assistance parents reported receiving ranged from \$200 to \$43,000. The median amount of assistance received was \$9,055 while the mean was \$12,386.
- 4.69 Seventeen parents reported that they had personally paid for or contributed to the cost of the alterations. Of those 17, 15 provided an estimate of the amount they had contributed, ranging from \$80 to \$250,000. The median amount personally contributed was \$6,000 while the average amount personally contributed was \$36,993. The most common sources of personal funds were savings and loans, followed by income (Table 4.30).

**Table 4.30: Consumer Funding of Alterations/Adaptations (Parent Survey)**

Source of personal funds	Parent Survey
	n
Took out a loan/extended my/our mortgage	7
Savings	7
Out of income	5
Compensation lump sum (ACC)	0

\* Multiple response ^ 1 missing case

- 4.70 Some focus group participants indicated that they had funded modifications themselves, either fully or as a co-payment. These included bathroom modifications, widening doors, automatic door system, and level entry to the house.

<sup>5</sup> These are self-reported funding categories. See Footnote 3.

- 4.71 The surveys and focus groups highlighted several issues with the current funding regime, where those whose disability is caused through disease, illness or condition at birth are funded through the Ministry of Health, and those whose disability is caused through accident are funded through the Accident Compensation Corporation (ACC). It was clear that in general people have little understanding of government funding systems, which are inherently complex. They have often never heard of the Ministry of Health's Environmental Support Services (ESS) system responsible for the funding of house modifications. Many people who are funded through ESS are unclear that it is the Ministry of Health which has funded their modifications. Frequently they believe their funders to be the DHB, or the administrative agencies (Enable and Accessable) contracted to provide the modifications.
- 4.72 Another issue is about fairness of funding. The surveys and focus groups showed a general perception that funding criteria for modifications is unfair, e.g. those on ACC could get houses altered if they moved but those with illnesses could only get one house altered. ACC can meet the full costs of modifications, and a person may receive further assistance if they need to move to new accommodation. In contrast, funding for modifications through ESS is limited and demand is great. A prioritisation framework for receiving funding is applied, which means that applicants may have to wait. It is possible that second or subsequent housing modifications can be undertaken but extenuating circumstances must apply. A number of participants also commented on the inflexibility of funding through ESS, which has a ceiling on funding for modifications of \$7,900 before income and asset testing may be applied.
- 4.73 Comments on funding anomalies and inequities included:
- Policy that can only fund one bathroom modification in a person's lifetime is ridiculous (Disabled person).*
- We got less than half the money the assessor said we should get. Ended up paying the difference ourselves. It's hard to understand why the assessor's recommendation was not accepted (Parent).*
- 4.74 Even when some modifications were funded by ACC or other government funding, these often required additional expenditure either to increase the level of functionality of the modification or to make good poor workmanship.
- 4.75 In addition, a few focus group participants commented that the on-going costs or maintenance of the modification were not considered in decisions about the type of modification to be installed, yet these were matters the householder had to manage. Examples given included the maintenance of some bathroom surfaces used in wet area showers, the cost of operating a waterlift as opposed to a permanent ramp, and maintenance costs to internal doors and walls due to damage from a wheelchair (where funding for hall and door widening was not approved).
- 4.76 Comments on additional and on-going financial commitments, over and above the outlay for modifications included:
- They botched up the painting, it had to be re-done. Poor workmanship and poor finishing. I had to make good a lot of it with my own money (Disabled person).*

*We ran out of money after paying for the hydrotherapy bath ... the wall etc haven't been finished (Disabled person).*

*A significant constraint and often leads to additional expenses beyond those directly funded by ACC (Parent).*

4.77 Problems with accessing funding were identified in the surveys and the focus groups as exacerbating affordability problems. Both the quantum of funding available and the uncertainty about whether applications for funding would be granted were identified as barriers to achieving an accessible and functional home. Those in the focus groups in particular, said they had the impression that the cheapest option is the preferred or only option considered by the funder. Some participants questioned the funding criteria of 'essential' versus 'desirable' adaptations, suggesting that this approach ignored the quality and durability of the modifications (making them more cost effective in the long term).

4.78 Typical comments were:

*Because I'm a beneficiary of a trust I've been advised that some of my options are reduced so am waiting until the trust can afford to build a flat ... I have also been told that I will not be eligible for any funding to help make my flat disability friendly if it is being newly built for my needs (Disabled person).*

*Funding sources have been difficult to find ... not fitting criteria in the system ... not enough money (Disabled person).*

*We didn't consider the costs, we just knew we had to do it ... we haven't been through the funding stream yet, we haven't heard any positive stories, we have been told by other parents 'be prepared to fight' (Parent).*

4.79 There is an overwhelming sense among disabled people and their families that access to a functional home which optimises independence is fundamentally inequitable. Those who have private means or access to ACC funding are seen as significantly advantaged over others. Those inequities are exacerbated by a lack of transparency about eligibility and apparent inconsistencies in the implementation of policy. This is particularly the case in relation to:

- eligibility for funding for successive modifications
- the eligibility of young people wishing to leave home for funding if their parents have previously received house modification funding, and
- eligibility for funding where a disabled person is a tenant and the implications of accessing funding as a tenant on future funding access.

Comments included:

*... reluctant to use funding in rental property. This might impact on future needs and inability to access more funding (Disabled person).*

*We are living in our first home and would have used some funding to put in a wet area shower ... however we were told that we could only have funding support once and at that stage we did not know how long we would stay here and our next place might be even more difficult (Disabled person).*

*We are aware that Enable will only fund modifications to one house in the disabled person's lifetime. As she is only [young] it is highly likely she or we will move house again. This would impact financially on the entire family (Parent).*

*We have a two level home. We purpose built the lower level to accommodate the needs of our son who required a high level of support. For 'future proofing' we left a suitable space for a lift to be easily installed if funds ever become available (Parent).*

- 4.80 Some survey and focus group participants showed reluctance to complain about what they felt to be poor treatment they have received. Essentially, they recounted 'giving up' on pursuing their requirements with the funder and either abandoned any thought of modifications, or funded adaptations themselves. However, others recounted their continual engagement with the funder in an effort to get a better deal:

*If I moved I would have to consider whether I have the energy and can be bothered to go through it (housing modifications) again and all the finances to fund what won't be funded. The time it takes is also a consideration and living in an unsuitable arrangement for a while (Disabled person).*

*We had to fight with ACC for four years to now have a home that is safe for my husband and children (Partner of disabled person).*

*You gotta do what you gotta do to get what you need (Disabled person).*

- 4.81 Notably with regard to tenure, tenants not only expressed concern about their eligibility for funding as tenants but also commented on the unwillingness of landlords to modify the property. A number of survey respondents in rental properties commented that they felt their current accommodation was unsuitable for modification. The Maori and parents focus groups commented on difficulties in getting modifications in both private and public rental accommodation.

### **Information Barriers**

- 4.82 Lack of information and advice about the funding process appears to be a considerable barrier. Participants in all focus groups commented that the funding system appeared complex. They appeared to have limited understanding of how the system works, and commented on receiving incorrect or confusing information which generated problems. Both survey and focus group participants remarked that the lack of information about the types of modifications available was also a major barrier.
- 4.83 The Pacific focus group emphasised a number of barriers they face including not knowing who to contact for information, and lack of knowledge and understanding of the funding system, prioritisation process and criteria. Language and cultural barriers exacerbate difficulties in accessing information.

4.84 Comments about information barriers included:

*Housing NZ and the DHB need to be more supportive, informative and assisting. Life has had its challenges in just being me ... help us to access our abilities not to be confined by our disabilities (Disabled person).*

*I wish there was some website or book that could tell me all the options available for the disabled. Usually there is a separate person for each area ... there should be more co-ordination between the services (Disabled person).*

*Because I have not been told about financial help that I am entitled to, and have found more road blocks than help when I have looked for funding, I have had to remortgage my home to do basic maintenance, but this has not been enough money to bring my home up to standard for a deaf blind person (Disabled person).*

*I know of situations where people have gone ahead and got some thing done because there is every indication it makes sense, only to find that they have to pay for it as they didn't get approval first and there is no retrospective funding (Disabled person).*

### **Decision-making Barriers**

4.85 Most survey respondents were satisfied with their involvement in decision making about adaptations. Over three-quarters of participants in the individual survey (76.1 percent) felt fully involved in decision making about alterations/adaptations. While it appears that most people are very involved in the detail of decisions once broad options are established, it is at the broader strategic level of specifying the range of needs and how they might be met, that their engagement may be curtailed. In the focus groups some disabled people and parents of children with disabilities said they had had difficulties in getting their views heard on what was needed, what was feasible and what was suitable. In some cases, there had been little recognition that the disabled client is knowledgeable about their own requirements, and what will work for them. A few disabled people and parents said it would have been more effective for them if they had been able to access the funding and manage the works contracting themselves.

4.86 Some participants in the Maori focus group commented that some people are whakama (shy) about asking for funding and are often intimidated by complex processes. Other focus group participants also talked about complex processes, and finding it hard to make their needs and preferences known. The Pacific focus group commented on cultural needs that should be taken into account in decisions about the modification needed, including preferences for separate rooms for shower and toilet.

4.87 Comments about lack of involvement in decisions about modifications included:

*Lack of empathy from Occupational therapists in carrying through what is in the client's best interests (Disabled person).*

*People like me with hearing disability don't get much of a fair go and when I was young no one bothered much<sup>6</sup> (Disabled person).*

*Lack of choice or advice. Options are not looked at, due to lack of allocated time by the services ... As a disabled person it's not easy to find out what I'm entitled to. There is no one to get advice or go to where you can talk about what's possible (Disabled person).*

*We had to have an architect come and draw up plans, at Enable's cost. The last plan he drew up had the shower where the window was! Not possible and we wondered how much attention he had paid to the room. We felt the money was mis-spent, we had to have the architect yet our design was practical and less costly (Parent).*

### **Barriers Associated with Contracting Works and Achieving Quality**

4.88 Most survey participants were pleased with the modifications they had made to their dwellings. In the individual survey, 83.3 percent of participants reported being happy with the way their modifications look, and over three-quarters (78.9 percent) reported that their modifications were problem free for themselves and other members of their households. Similar high levels of satisfaction were reported in the parent survey. Despite most people reporting satisfaction with their modifications, just over a fifth of participants in the individual survey and similar proportion of participants in the parent survey reported experiencing some type of problem as a result of the modifications. The focus groups also revealed a range of problems encountered with modifications, including frustrations with the processes of needs assessment, obtaining funding, communicating with agencies and contractors, and installation of modifications.

4.89 Disabled people and parents of children with disabilities catalogued a wide range of examples of incomplete work, poor workmanship, unsuitable and unworkable alterations. Poor quality service was experienced at all stages, from the assessment, design and planning stages, through to construction, installation and finishing. Across the focus groups participants noted a lack of expertise and shortcomings of service providers in both the assessment of modifications needed and the quality of alterations done. People identified a number of factors contributing to the poor quality of modifications, including turnover in personnel resulting in repeat assessments and confusion, lack of providers' expertise and experience, and long delays in completion of the job. In particular, criticisms were made about occupational therapists, architects, contractors and tradesmen. Comments about the poor quality of modifications were widespread and strongly stated. They included:

*My bedroom door, roughly done, not finished properly. Overall appearance is not satisfactory ... Enable is supposed to put everything back at least as good as what it was before (Disabled person).*

*[funder] altered the kitchen their way and stuffed up – access from the outside in is now more awkward (Disabled person).*

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<sup>6</sup> The Ministry of Health advises that people who are deaf or hearing impaired often require but currently do not usually receive Ministry funding for assistive devices such as visual alarm systems.



*Wet area shower alteration was not completed properly as wet area is rotting out ... awaiting approval for repairs (Disabled person).*

*Wet area shower wasn't installed properly – very costly to fix and everyone passed the buck ... emotionally and financially this was a nightmare (Disabled person).*

*If the architect had been more experienced, could have utilised the space better (Disabled person).*

*I had to arrange to have the hall and lounge/dining areas redecorated ... living daily with a large segment of plastered but not wallpapered hall and a large hole in the lounge was depressing, i.e. accessible, but exceedingly ugly! (Disabled person).*

*Although I am very happy to have the alterations done the quality of the work was of a very low standard (Parent).*

*We had three occupational therapists involved in assessing for a purpose built bathroom off our son's bedroom. I queried them as to what's available and what could be funded. They don't know and they didn't bother to follow up and come back to us (Parent).*

- 4.90 Associated with poor quality of modifications, some survey and focus group participants commented about feeling they must settle for the cheapest option, which turned out to be 'second best'.

*I am concerned at the poor workmanship ... often this is due to the amount of money allowed by agencies ... I feel as though the people with disabilities are expected to accept second best and be satisfied with this (Disabled person).*

- 4.91 Reports of long waits in starting modifications, and delays during the modifications process were recounted in both survey comments and in focus groups, for example<sup>7</sup>:

*We were told alterations would take eight weeks, they were still being done 12 months later (Disabled person).*

*Concern at delays in getting funding approval, then actual starting of alterations (Disabled person).*

*The process of obtaining housing modifications (through the Ministry of Health funded system) involved five different occupational therapists. Sometimes we only know one had left when the next one turned up. This resulted in repeat assessments, long time periods and generally confusion about where things were at (Disabled person).*

*I had to wait a year for a ramp to be built to enable my son to access the house at all. In the meantime I had to drag my son who is very heavy up a flight of stairs and then drag him to the nearest entrance way. As a result I have damaged my shoulder and have ongoing problems with it (Parent).*

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<sup>7</sup> The researchers were told by Enable and Accessable staff with technical building skills who undertake contracting for modifications that they have on-going problems getting contractors.

## **Impacts of the Provision and Lack of Provision of Modifications**

- 4.92 There were numerous examples where the disabled person or the parents felt that the individual's needs were definitely not met by the modifications they received. This was often associated with what they saw as inappropriate policies and/or inadequate funding:

*The occupational therapists know what needs to be done, but get overwhelmed by what the contractors stipulated ... still battling for a vanity that both me and my partner can get our knees under. The modifications often don't meet personal requirements (Disabled person).*

*One house I lived in had no internal doors as a result of widening the doorways. They did not think they needed to be replaced. I did not accept this though when they wanted to leave off the toilet door to provide me with access! (Disabled person).*

*We were allowed either a bath or a wet floor shower but not both. Yet my daughter loves a good soak in a warm bath with physio done while relaxed in there. But on school days, a quick shower is needed. The rules do not meet her needs (Parent).*

*Bathroom alterations could have been made user-friendly ... we are grateful for the wet floor shower, however we have to hoist our son and take him up the hall to his room. A door in the wall would have been easier and given him more privacy (Parent).*

*Housing alterations need to be on-going to accommodate loss of function and there is no allowance for this. Also, sometimes what is allowed in reality will not work. It has been assessed on a monetary value rather than value for the client (Disabled person)*

*I don't know if I could cope totally on my own unless my future housing can be more disability friendly (Disabled person).*

- 4.93 There was widespread concern about the ESS system funding home modification primarily for 'essential' needs. One example given was modifications to assist the disabled person to prepare meals for themselves. If the person is living with others who can do it for them, then it is unlikely modifications to the kitchen would be done. As several people pointed out, preparing one's own meals is a fundamental component of independence.
- 4.94 One particular aspect of the inappropriateness of policy and funding was associated with what disabled people and their families considered to be an appropriate way of measuring their needs. In particular, a failure to recognise the relational functions and responsibilities between household members.
- 4.95 Survey and focus group participants said that not only were the disabled person's personal needs compromised, but also the family's needs for interaction were often compromised by how modifications had been done. In other examples, modifications considered to be necessary because they had social benefits for the family were not funded.

*ACC wouldn't alter my son's doorway, because they don't see it as relevant to my disability, I couldn't get into his room, so we got it altered anyway (Disabled person).*

*Our wishes were met with "no, we only fund the cheapest option". We never hear "OK, what would meet the needs of this family the best" ... We feel [our daughter's] very basic needs of access and hygiene have been met, just. Her needs as a person have not, and our needs as a family have been totally missed out in the whole process (Parent).*

4.96 All focus groups said they would like to see the needs of the family and whanau taken into account when modifications are done. Examples of where this needs to happen include: consideration of space needed to accommodate equipment, consideration of the carer's safety and needs for manoeuvrability when assisting a person, a separate bathroom for the disabled person, mobility around all parts of the house, and family members able to both interact with one another and be independent.

4.97 Overall, house adaptations are seen as fundamental to achieving and maintaining an essential level of independence and expected quality of life that is maintained as people age. It was widely reported in the surveys and focus groups that modifications allow people to move around their homes, help them to do everyday activities for themselves, improve safety for the disabled person and others in the household, and make it easier for other family members and care givers to help the disabled person:

*A modified home is essential to maintain a quality of life (Disabled person).*

*We built our house with easy access to all parts (Disabled person).*

*All of them [modifications] are important and has a big impact on one's life (Disabled person).*

*[it means] being able to go in and out of the house safely, no assistance required, avoiding accidents especially in wet weather (Disabled person).*

*Absolutely enhances our participation in most community activities (Disabled person).*

*We were delighted with the alterations that were funded and have been carried out. They were/are essential to our daughter's needs (Parent).*

4.98 Those individual survey participants who reported that alterations had been made specifically for them, said that the areas of greatest impact are on:

- taking a bath/shower (83.7 percent)
- feeling safer (79.3 percent)
- running the house (73.9 percent)
- being able to go out of the house (66.3 percent)
- using the toilet (69.6 percent)
- needing less help from others (68.4 percent)
- continuing with interests (55.4 percent)

- 4.99 Fewer respondents, but substantial minorities, reported the alterations having an impact on:
- having a social life (48.9 percent)
  - getting to work (39.1 percent)
  - preparing meals (37.0 percent)
  - caring for someone else (19.6 percent).
- 4.100 Participants in the parents survey said that the adaptations have significantly helped their disabled child with:
- taking a bath/shower (96 percent)
  - using the toilet (75 percent)
  - being able to go out of the house (70.6 percent)
  - moving around the house (72.2 percent)
  - feeling safer (61.9 percent)
  - needing less help from others (38.9 percent)
  - having a social life (35.7 percent)
  - getting to school/education (33.3 percent)
  - helping around the house (28.6 percent)
  - continuing with interests (20 percent).
- 4.101 Those receiving ACC funding appeared to experience a very positive impact on their lives due to the modifications. They were more likely than the rest of those surveyed to consider that the modifications had helped significantly with getting to work, being able to go out, continuing with interests, having a social life, using the toilet and moving around the house.
- 4.102 The individual survey asked whether the individual considers that they have been unable to pursue opportunities because of a lack of appropriate housing. Over a quarter of participants in that survey (29.1 percent) felt a lack of appropriate housing resulted in missed opportunities. Most commonly the missed opportunities were around the ability to make lifestyle choices, seek employment and be near to family (Table 4.31).

**Table 4.31: Perceptions of Missed Opportunities\* (Individual Survey)**

Missed opportunities	Survey Respondents (N=34)	
	n	%
Lifestyle choices	24	70.5
Employment	19	55.9
To be with family	17	50.0
Training/education	17	50.0
Start new household/relationship	12	35.3

\* Multiple response

- 4.103 Both disabled people and parents commented on difficulties that disabled people experienced in pursuing further education and training or work opportunities, because of difficulties in accessing suitable housing. One survey participant commented on a lost job opportunity:

*Funding criteria meant that an unplanned move resulted in reducing funding for alteration in my current home, and in part meant that I could not pursue an academic career ... I was unable to get further [modifications] assistance if I moved ... essentially to further my academic career, I had to forfeit the very assistance I'd need to get out of my home and to work each day (Disabled person).*

- 4.104 Several survey participants found lifestyle options were compromised because of difficulties in getting modifications to their accommodation, or finding a house that was already modified or suitable for them. In some cases their housing choices have been severely compromised by a lack of housing with universal design. Lifestyle options that were compromised included:
- the ability to live independently
  - the ability to choose whom to live with
  - the ability to own a home, and
  - the right to live in a location of their choice.

Many people without a disability would consider these options not so much lifestyle options as fundamental human rights.

*... house was not suitable for wheelchair and owners (HNZC) refused to allow the hoist, for which I had been assessed as needing to be installed ... present housing is in the bottom floor flat ... where a ramp could be fitted ... this gave me back my life.*

*I had to sell my house when I was no longer able to work ... [now] my landlord may decide to sell at any time. In any event I shall be forced to move if I am to continue to receive an accommodation allowance as work and income are adamant I should not live here, even at my current rent, but in a boarding house. This is the only other option as I am not eligible for HNZC accommodation and the vast majority of council flats are unsuitable for tenants with a disability. Sustained threats to discontinue the allowance unless I move to somewhere unsuitable and patently unsafe are destroying my sanity.*

*So difficult to find accessible accommodation in Auckland. There's simply nothing. I went flatting last year and I looked for months to find something wheelchair friendly and I found zilch. And even more disappointingly, no organisation dedicated to such a provision ... we ended up getting a flat which was just that – nothing more, limiting my independence considerably. It got too much in the end and I moved back home.*

*Applied to council many months ago with a letter of support from my doctor for more suitable accommodation, and was shown one that was smaller and even more unsuitable at a higher cost. Also applied to Housing NZ but when they realised I already had a flat they told me not to bother even with a medical certificate stating need, as they were already swamped and had a two year backlog.*

*It is an uphill battle trying to find suitable accommodation ... someone with a disability needs to live in a modern home with a walk in shower, compared with cheaper accommodation that has a step-in shower.*

- 4.105 Disabled people in the focus groups talked about their opportunities to socialise with others being limited, both because of restrictions in moving around their own homes, and difficulties when visiting others' homes. Parents talked about the restrictions on their disabled child socialising with others and generally participating around home as a family member, because of a lack of suitable adaptations:

*For sure – you can't participate in your community, you can't enjoy your whare if you're limited within one room in the whare (Disabled person).*

*If your home isn't geared up to support you to be as independent as you can be then getting out of the house to do any of these things is a challenge (Disabled person).*

*Barriers in the built environment exclude people in wheelchairs' access to social interaction in other people's house (Parent).*

*He would like to be able to do dishes but cannot access the kitchen sink ... he loves to do laundry but cannot access because of steps (Parent).*

4.106 Some adults living with parents talked about their lifestyle options being restricted. Twelve participants in the individual survey indicated that they lived with one or both of their parents, and some in the focus groups also commented on living with parents. One person, who needs twenty-four hour care would like to live independently in supported housing close to his family. He is also concerned about the time when his ageing parents will not be able to manage his care anymore. Another young adult commented that he saw moving out of his parents' home as difficult because of his personal care needs and requiring modifications in any future accommodation.

4.107 Parents in focus groups and the parents' survey talked about searching for appropriate accommodation for their young adult offspring that would allow them a measure of independence. While one family has built a unit on the property for their disabled young adult, not all families have the financial resources to do that. Other parents spoke of living in small towns where accommodation options for disabled people are very limited. Two young people remarked that their families had been told to look at a rest home as an accommodation option. One parent, who uses child care for her disabled pre-schooler noted the difficulties in finding a carer with an appropriately modified dwelling, and said she knew of one carer who took the disabled child she regularly cared for home for showering. Another parent pointed out that in the case of parents divorcing and wanting shared custody, in the current situation it is likely that only one home will be modified. The current policy permitting housing modifications to one dwelling only, unless in extenuating circumstances is seen to adversely impact on effective respite and shared care arrangements.

*I've been looking for a place where I can live independently with 24 hour care, but we've been told there's not the demand or the funding available for such accommodation ... my mum tried to get supported housing off the ground locally but couldn't get funding for it (Disabled person).*

*I don't see myself moving out of home in a huge hurry ... getting a house will come down to getting funding for someone to stay overnight (Disabled person).*

*A lot of the decisions made to alter the house have not taken into the fact that I want to be able to do that myself one day, not to rely always on my parents (Disabled person).*

*I went flatting for a year but moved home (Disabled person).*

*There is no existing accommodation option that is suitable for [our 19 year old] ... there's nothing ready built. You have to fall over the edge before you get anything. Also no respite care. Parents need a break but the child needs a break too (Parent).*

*As he grows to adulthood it would seem that supported living will be an ideal to give him complete independence, however the availability of such accommodation and appropriate caregivers? (Parent).*

## **Summary and Key Issues**

- 4.108 When disabled people and their families are asked to share their housing experiences they tend to focus on the issues around getting their homes modified. This is not surprising. The housing stock in New Zealand without modification clearly presents significant problems of access to disabled people. The functioning of disabled people and their families, particularly the ability of disabled people to carry out their responsibilities and contribute to their families is often limited by the dwelling itself.
- 4.109 Consequently, house adaptations are regarded as fundamental to independence and quality of life. A lack of suitable adaptations can contribute to missed opportunities to pursue further education or employment, and to fully participate in family and community life. In some instances participants reported that difficulties in accessing appropriate housing have restricted opportunities to choose with whom and how they wish to live.
- 4.110 While the majority of participants in both the surveys and focus groups reported modifications to their current home, a significant proportion also identified unmet need for further modifications, and recounted significant barriers in accessing modifications. Around half the individual survey participants reported needing modifications they do not currently have, either to enter/exit their home, or within the dwelling itself. Similarly, just over half the participants in the parent survey identified further modifications required, either within or outside of the house.
- 4.111 The surveys also show that the majority of participants are contributing their own money (some a considerable amount) to make their homes accessible. The main issues participants raised about the current provision of housing adaptations are:
- The most pervasive barrier to meeting respondents' unmet needs for modifications is cost. Over half the participants in the individual survey who reported unmet need for modifications identified that desired modifications were unaffordable. Surveyed parents also identified cost as the main barrier to getting modifications. The exception was the 16 people who received funding through ACC, who did not identify cost as a major barrier to accessing needed modifications.
  - Lack of information is another major barrier to accessing modifications. This includes lack of information and advice about the funding system and application process, and types of modifications available. Language and cultural barriers can make accessing information even more difficult.
  - Problems with the process of getting the modifications. This included lack of involvement in decision making about the modifications, additional financial commitments arising out of having the modifications done, poor quality of modifications, having to compromise, and delays in obtaining assessments and modifications.

- Lack of consideration of the needs of the whole household. It is critical that disabled people are able to fully interact with other household members, and the way in which modifications are done (or not done) can facilitate or restrict interaction.
- 4.112 The Maori focus group identified many issues that were similar to those noted in the surveys and other focus groups. Like other participants, they commented on the need for modifications to help the whole household. They spoke of a holistic approach, taking into account of the needs of whanau living with the disabled person. They also considered that disabled people and their families need better information about the funding system. The focus group observed that families often feel reluctant to ask for funding and are intimidated by agency processes. They need support and advice to work through the funding processes.
- 4.113 The Pacific focus group also identified many issues that were similar to those noted in the surveys and other focus groups. They emphasised the difficulties they have in finding out about funding assistance and understanding the assessment process. Language difficulties and providers' lack of understanding of cultural matters were specific concerns.
- 4.114 Young people with disabilities identified that they need a range of supports if they are to achieve their aspirations to live independently as adults. Appropriate housing is critical for their transition to independence. But it is not the only requirement. Comments from both surveys and focus groups noted that personal assistance needs, in some instances for overnight care, complicate their options for living independently. Also noted was that the young disabled adult may want to remain in the parental home somewhat longer than their non-disabled peers (or not leave at all), but that this does not mean they wish to forego independence within the family environment. Attaining a greater measure of independence within the parental home may require further modifications, e.g. modifications to kitchen benches or automatic doors.
- 4.115 Young people with disabilities and their parents highlighted the shortcomings of current policy and funding settings that do not seem to take account of the changing housing needs of the child and young person as they grow and develop. Further education or employment may require a change of residence and resulting need for housing modifications. The ESS policy of funding only one set of modifications (unless there are extenuating circumstances) is seen as completely unrealistic by parents and disabled people. Although some said that they have noticed some flexibility around this policy, it is widely regarded as unfair and limiting.
- 4.116 Some particular issues for older disabled people emerged. Almost one fifth of respondents in the individual survey were aged 65 years or more and 38 percent were aged 50 – 64 years. They emphasised that their homes had to accommodate their increasing disability as they aged, which meant needing further modifications to support their independence and maintain functionality. The tension between ageing in place and perhaps moving to a more suitable home was also raised – although most indicated they had modified their home with remaining there as long as possible the goal.



- 4.117 There were also particular issues that older parents identified for the care of their disabled adult offspring, when parents became unable to care for the child or die.
- 4.118 The surveys and focus groups identified a variety of options that would assist disabled people and their families to access the housing adaptations they need:
- Provide accessible and easy to understand information on the funding system and how to access funding for housing modifications. Provide this information in a range of languages, including Pacific languages<sup>8</sup>. Suggestions were made for a 'one stop shop' for disability information.
  - Improve the knowledge and expertise of service providers (including occupational therapists, needs assessors, builders, architects), about disabled people's housing needs, and the funding system.
  - Improve timeframes for the delivery of housing modifications services.
  - Establish modifications standards for residential housing and a monitoring and auditing regime. One focus group suggested that there needs to be an independent body established to provide information and support about housing modifications for disabled people and their families.
  - Widespread adoption of universal design in all new residential housing.
  - Establish and maintain a register of modified dwellings.
  - Remove current inequities between ACC and Ministry of Health funding systems.
  - Increase ESS allocation for housing modifications (currently limited to \$7,900 before income and asset testing may apply).
  - Include in assessment, consideration of the family, relationship and cultural needs of the disabled person.
  - Improve co-ordination between agencies involved in the provision of modified housing services.
  - Funding should allow for life cycle changes to accommodate changing situations of disabled people, including maturation, changes in health and disability and changes in personal and family circumstances.
  - Above all, treat disabled people and their families with respect.
- 4.119 In addition the surveys indicate some other issues that the housing and disability sector, particularly the funding and service agencies need to acknowledge.
- 4.120 First, it is clear that disabled people are exposed to housing stock that is not only poorly adapted to the needs of the disabled person and their family, but is simply poorly performing. Levels of thermal comfort are clearly low, and significant proportions of survey respondents comment on their houses having problems with damp and mould. Poor house performance is not uncommon in New Zealand; however, the impacts of poor house performance can be expected to have a particularly negative effect on the health and well-being of disabled people.

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<sup>8</sup> The Ministry of Health has advised that a simply written brochure has been developed and translated into Maori, Samoan, Tongan and Cook Island Maori, as well as into accessible formats such as audio tape. The Ministry is endeavouring to publicise the availability of this brochure.

- 4.121 Second, there are broadly two types of modification and adaptation undertaken on dwellings to meet accessible housing needs. The first set of adaptations are basic accessibility and functionality modifications that could be undertaken in any house and could be designed into all newly built houses. They include wider doorways, hall and circulation spaces, level access, lever handles, wet-shower areas, and accessibly placed light switches and plugs. The second set of adaptations is customised for particular individuals and can be highly specialised. It is also axiomatic that if dwellings were built or retrofitted with the former set of features it would not only make that housing more sustainable and adaptable to the changing needs of occupants, but it would release funding to be applied to the latter and reduce the overall cost of optimising dwelling functionality.
- 4.122 The third issue that has emerged from the surveys and focus groups is the importance of neighbourhoods. It is clear that disabled people and their families must balance the functionality of homes with the functionality of their neighbourhoods. The connection between neighbourhoods and homes has yet to be explored in any depth in New Zealand, but if policies such as ageing in place are to be properly implemented and if disabled people are to have opportunities to participate in community life, then the built environment both at the dwelling level and the neighbourhood level will need to respond to the demands of people whose mobility is impaired.
- 4.123 In addition, it is clear from the survey data that disabled people's residential movement is diverse and complex and that their housing needs also change over their lifetimes. Dwellings that are not adaptable to, and funding and assessment structures that cannot accommodate, the changing and dynamic needs of disabled people and their families will compromise the well-being and participation of disabled people. Attempts to forecast the quantum and location of disability demand are unlikely to be successful. Certainly it must be recognised that the proportion of the population with some impairment to mobility is likely to increase with the ageing population, combined with higher survival rates for those with congenital impairment or impairment acquired through injury or illness. However, it must also be recognised that impairment through injury or disease or congenital condition may happen to individuals or families in a wide variety of situations, localities, neighbourhoods or dwellings.
- 4.124 The extent to which impairment is disabling to an individual will in part depend on the social and physical environment in which that individual is situated. Everyone lives in a dwelling, and dwellings and the performance of dwellings are a crucial part of any individual's well-being. Dwellings last a long time and some dwellings are more adaptable to change than others and will be able to accommodate the changes that individuals need from them. Under those conditions, and given the findings that have emerged from this research, there is good argument to focus on the supply side of the housing stock and the way in which the mainstream stock can be developed, either through retrofit of existing stock, or improved design of new stock, that will make it more cost-effectively adaptable for the dynamic needs of disabled people and their families.

- 4.125 The housing stock in New Zealand without modification clearly presents significant problems of access to disabled people. The functioning of disabled people and their families, particularly the ability of disabled people to carry out their responsibilities and contribute to their families is often limited by the dwelling itself. Consequently, house adaptations are regarded as fundamental to independence and quality of life. A lack of suitable adaptations can contribute to missed opportunities to pursue further education or employment, and to fully participate in family and community life. In some instances participants reported that difficulties in accessing appropriate housing have restricted opportunities to choose with whom and how they wish to live.
- 4.126 It must be of considerable concern that even where house modifications had been undertaken, a significant proportion of disabled people and their families participating in the research reported that they continued to confront unmet needs and required further modifications. Around half the individual survey participants reported needing modifications they do not currently have, either to enter/exit their home, or within the dwelling itself. Similarly, just over half the participants in the parent survey identified further modifications required, either within or outside of the house. They recounted significant barriers in accessing modifications in relation to assessment expertise, capacity in the construction industry and in funding. The ESS funding and assessment regime was seen as so inadequate to the real needs of disabled people and their families, that some participants reported that they felt they had to manipulate 'the system' to get the most basic of assistance.
- 4.127 Trying to work 'the system' was seen as virtually unavoidable because of the lack of transparency in funding, policy and service delivery, particularly in the context of health funding. However, it also needs to be recognised that disabled people and their families make considerable financial contributions to making their homes accessible. Indeed, many participants were critical of the way in which their investment in accessible housing stock was frequently lost to disabled people when they moved on.

## **5. CAPACITY TO MEET ACCESSIBLE HOUSING DEMAND**

- 5.1 This section considers the extent to which the housing sector is responding to and likely to respond to the needs of disabled people and the rising incidence of severe and moderate impaired mobility. It reports on surveys of the community-based housing sector and real estate agents and in-depth interviews with two major developers.

### ***Physical Disability and the Community Housing Sector***

- 5.2 The National Housing Strategy identifies the community-based housing sector as the major future provider of housing for people marginal to the mainstream housing market with an ability to develop a specialised housing stock for targeted groups. The Government is currently investing in partnerships with community-based housing providers to generate social housing stock where it cannot do so effectively. The results of this survey of community-based housing service providers suggests, however, that while there is some targeting of people with moderate to severe physical disability and impairment of mobility among some providers, a large minority of community-based providers do not recognise themselves as having any disability clients or any need to address disability related housing needs.

- 5.3 Of the 89 providers responding to the survey, 54 (60.6 percent) reported that they had disabled people among their clients. Those 54 providers ranged from those providing services to specific communities such as Tolaga Bay on the East Coast to providers with housing “throughout NZ – from Kaitaia to Invercargill”. The majority of providers (41 out of the 54) provide housing services within one region. Four providers were not currently providing housing and the remaining nine were providers with services in two or more regions.
- 5.4 Table 5.1 sets out the activities undertaken by the 54 providers that reported providing services to people with disabilities. It should be noted that these services are provided across all the providers’ client groups. In addition to the provision of rental housing, significant proportions of providers were involved in other housing-related activities such as support and advice or the provision of house modifications and repairs and maintenance.

**Table 5.1: Housing-related Activities undertaken by Providers (N=54)**

<b>Activities</b>	<b>Providers</b>	<b>% Providers</b>
Rental housing	33	61.1
Accommodation support service for older people	27	50.0
Advice on home repairs/maintenance for people with physical or sensory disabilities	23	42.6
Adaptations or modifications to dwellings	22	40.7
Accommodation support service for people with physical or sensory disabilities	22	40.7
Other housing service for older people	21	38.9
Advice on home repairs/maintenance for older people	20	37.0
Home repair/maintenance service for people with physical or sensory disabilities	17	31.5
Home repair/maintenance service for older people	15	27.8
Other housing service for people with physical or sensory disability	14	25.9
Mortgages for owner occupiers	3	5.6

\* Multiple response

- 5.5 Half the providers reported providing an accommodation support service for older people. Two-fifths or more provided an accommodation support service to people with physical or sensory disabilities, undertook adaptations or modifications to dwellings and provided advice on home repairs/maintenance for people with physical or sensory disabilities.
- 5.6 ‘Other’ housing services for older people include:
- Residential care
  - Emergency housing
  - Retrofitting
  - Advocacy
  - Education programmes
  - Housing assessments and referrals to services for funding.

- 5.7 'Other' housing services for people with physical or sensory disabilities include:
- Advocacy with other housing providers e.g. HNZC, city council
  - Training courses on budgeting and home management
  - Transitional housing
  - Emergency housing
  - Referrals to other specialist services.
- 5.8 Around three-fifths of providers (33 out of 54 or 61.1 percent) were directly involved in the provision of housing through the provision of rental stock. The number of rental dwellings provided ranged from 1 dwelling to 2,651 dwellings. The average number of dwellings was 132, the median was thirteen dwellings. As Table 5.2 shows a significant proportion of providers have 10 or fewer dwellings available. In all a total of 4,352 rental properties are provided by the 33 providers.

**Table 5.2: Number of Rental Dwellings by Rental Providers**

<b>Activities</b>	<b>Providers</b>	<b>% Providers</b>
1-10 dwellings	15	45.5
11-50 dwellings	7	21.2
51-100 dwellings	7	21.2
101 or more dwellings	4	12.1
<i>Total</i>	<b>33</b>	<b>100</b>

- 5.9 There is some targeted provision of rental housing to people with disability but it is limited and a significant proportion is directed specifically to older people. Twenty-one providers report they have rental dwellings specifically for older people and 19 providers report they have rental dwellings specifically for people with moderate to severe physical or sensory disabilities. In total, of the 4,352 rental dwellings provided, 709 (16.3 percent) were for older people and 839 (19.2 percent) were for people with moderate to severe physical or sensory disability.
- 5.10 Just as a minority of the housing stock is targeted to disabled people and their families, so only a minority of dwellings had some form of modification to optimise functionality and accessibility. Providers report 21.6 percent of the stock having some form of modifications. This is dominated by the modifications found in the stock of one of the largest stock providers. Seven providers reported no dwellings with modifications. A further three providers, those with very sizable stocks, said they were unable to estimate the number of modifications. They effectively can not match their stock to the needs of a presenting disabled person.
- 5.11 Modification to stock is generally low level as Table 5.3 shows.

**Table 5.3: Types of Modifications in Rental Properties with Modifications (n=939<sup>^</sup>)**

<b>Activities</b>	<b>Dwellings</b>	<b>% Dwellings</b>
Grab/hand rails	904	96.3
Easy-to-get at driveways, ramps, or street level entrances	780	83.1
Easy-to-get at toilet	770	82.0
Easy-to-get-at passenger drop off/pick up areas	768	81.8
Wet area shower	743	79.1
Audio warning device	608	64.7
Widened doorways/hallways	361	38.4
Automatic/easy-to-open doors/windows	214	22.8
Lever door handles	195	20.8
Bed/bath lifts	171	18.2
Visual/flashing alarm	29	3.1
Lowered switches/power points	24	2.6
Emergency call system	14	1.5
Lowered benches/sinks	3	0.3
Elevator/lift device	3	0.3

\* Multiple response ^ one missing case

- 5.12 The most common type of modifications include: Grab/hand rails; Easy-to-get at driveways, ramps or street level entrances; Easy-to-get at toilets, and Wet area showers.
- 5.13 A small number of providers reported additional special features. One provider has 6 dwellings which have been custom designed for older people. Another provider reported that their 640 dwellings all have fire alarm systems installed, and 50 of the dwellings include domestic fire sprinkler systems. Another provider with 67 dwellings said all the dwellings have had larger light switches installed.
- 5.14 Twenty-two providers said people come to their organisation specifically because they are seeking housing with modifications. Provider responses indicate the most common housing modification sought by people with disabilities and older people is a house with a wet area shower. Other modifications commonly sought included:
- Easy access – drive-on, flat section, ramps or street level entrances
  - Easy-to-get-at toilet
  - Widened doorways or hallways, and
  - Grab or hand rails (Table 5.4).
- 5.15 ‘Other’ modifications/features sought by tenants included:
- a warm house/ insulation (2)
  - a single level dwelling (2)
  - safety catches and locks that work (2).

**Table 5.4: Types of Modifications Sought by Clients of Twenty-two Providers**

Activities	Providers	% Providers
Wet area shower	19	86.4
Easy-to-get at driveways, ramps, or street level entrances	18	81.8
Easy-to-get at toilet	18	81.8
Widened doorways/hallways	17	77.3
Grab/hand rails	16	72.7
Easy-to-get-at passenger drop off/pick up areas	8	36.4
Bed/bath lifts	7	31.8
Lowered benches/sinks	6	27.3
Other	5	22.7
Lever door handles	4	18.2
Emergency call system	4	18.2
Automatic/easy-to-open doors/windows	3	13.6
Visual/flashing alarm	3	13.6
Lowered switches/power points	3	13.6
Audio warning device	2	9.1
Elevator/lift device	2	9.1

\* Multiple response ^ one missing case

- 5.16 Just over half the respondents (55.8 percent) report they match people who need a modified dwelling with a suitable dwelling. The remaining providers report they do not match people who need a modified dwelling to a suitable dwelling. It is unclear from the responses how providers match people to suitable dwellings. However, twelve providers (27.3 percent) with modified rental properties keep a register of the dwellings they own/manage. Of those 12, five keep a register of dwellings not owned/managed by them to which they can refer people. A further seven providers with no register of their own properties or no modified properties keep a register of other modified dwellings not owned or managed by them to which they can refer people.
- 5.17 A number of the providers surveyed recognised an unmet need for properties suitable for people with a mobility disability. Nineteen of the 54 providers (35.2 percent) said they are currently considering the purchase of one or more modified properties for rental to people with a mobility disability. A few providers commented on the limited amount of suitable housing among private and other rental stock:

*“Very difficult to find suitable homes on the private sector rental market.”*

*“There is a significant shortfall in the amount of accessible dwellings in the community, private and public housing stock.”*

*“Rental accommodation generally does not meet the needs of the people we support in regards to accessibility; finding properties that match needs/wants can be difficult on the rental market”.*

*“Very little provision in Porirua for affordable modified housing for the elderly.”*

*“Blenheim has an ageing population and could do with more modified housing.”*

*“In the Southland area older people live in larger homes. Can’t sell for sufficient money to buy a smaller property such as a purpose built unit”*

*“Nelson has an ageing population – in the future there won’t be enough modified housing available”.*

*“[Not] enough consideration is given to the ageing population and particularly the accessibility of affordable housing in city areas.”*

*“Large gap in the amount of modified housing, especially in smaller towns and centres around Southland, compared to need”.*

*“Massive area of unmet need ... these [older] people aren’t on the radar screen until they have an accident which hospitalises them.”*

*“There is nowhere near enough awareness in the market of “barrier-free accessible housing” ... little awareness in terms of modifications.”*

*“Need better promotion and information about what is available and encouragement that it’s not shameful to use these services”.*

*“All new Abbeyfield houses and the units within them are being built with modifications and the ability to be easily modified further”.*

- 5.18 This is only a small proportion of the community housing sector surveyed, however. It constitutes only 21 percent of the 89 providers who responded to the survey and only 15.2 percent of the providers contacted. Moreover, when commenting on housing availability, there was a strong focus on older people. There was almost no identification of housing need among young disabled people despite the strong indication of that need evident in the individual and parent surveys and focus groups with disabled people. In addition, there was a strong sense that while accessibility was important among community housing providers, affordability was their primary preoccupation.

*“New or newer homes tend to be much better suited but this creates an affordability barrier.”*

*“Our key is affordability rather than accessibility. Affordability is more important in our area”.*

*“A big concern is around housing... that is affordable and sustainable”.*

### **Matching Sellers and Buyers: Real Estate Agents**

- 5.19 Real estate agents were interviewed for a variety of reasons. Firstly, because there was some concern expressed by disabled people that modified houses were lost to the disability market because real estate agents did not value or recognise those modifications as a potential selling point. Secondly, real estate agents were interviewed to provide an insight on the extent to which the private market sees accessible housing as in demand and a more or less marketable product.



- 5.20 A total of 81 real estate agents were interviewed. They were distributed across the main centres as follows:
- Auckland – 20 interviews
  - Wellington – 14 interviews
  - Christchurch – 13 interviews
  - Dunedin – 21 interviews
  - Hamilton 13 interviews.

Although not specifically quantified in the survey, the majority of real estate agents participating in the survey were working solely or predominantly with property for sale rather than rental property.

### Agents' Views of Demand for Accessible Housing

- 5.21 In the last six months, thirty-three of the real estate agents interviewed (40.7 percent) reported they had experience of one or more household(s) with a person with moderate or severe mobility disability seeking housing. In most cases participants had been contacted by households looking to buy a house. Three real estate agents had also had households looking to rent in the last six months.
- 5.22 The number of households including a person with moderate or severe mobility disability with which individual real estate agents had dealt in the past six months ranged from one household to seven households. That is, among the interviewed real estate agents, around 64 households with a person with moderate or severe mobility disability were seeking private sector accommodation in the last six months. On average, real estate agents report that they show people through around 125 different houses over the six month period.
- 5.23 Fifty-nine (72.3 percent) of agents commented on the demand for owner-occupied housing for people with moderate or severe mobility problems. The majority reported demand had stayed the same or was rising. Only one agent said demand was falling (see Table 5.5). Six real estate agents commented on demand in relation to rental housing for people with moderate or severe mobility problems. Two reported demand for rentals had increased while four said demand for rentals had stayed the same.

**Table 5.5: Demand for Owner-occupied Housing for People with Moderate to Severe Mobility Problems**

Demand is...	Real Estate Agents	% Agents
Rising	22	37.3
Staying the same	36	61.0
Falling	1	1.7
<i>Total</i>	<i>59</i>	<i>100</i>

- 5.24 A number of real estate agents commented that the small number of households with disability they dealt with made it difficult to comment on trends. In general there was a perception that rising demand was related to an ageing population.

*"I get a few people coming with occupational therapists to make modifications."*

*"I think developers are targeting the elderly more."*

*“Rising – because population is ageing.”*

*“I think age is going to be a factor in people’s choice.”*

5.25 Fifty-nine real estate agents also commented on whether demand for housing for people with moderate to severe disabilities matched the available supply. As Table 5.6 shows nearly half report that demand for houses for disabled people exceeds the available supply. Despite this, a number of agents commented that modifications were not something typically discussed with clients. They noted that households may not make agents aware that they are seeking specific modifications. Other respondents suggested households purchase a home and subsequently make the necessary modifications. In short, agents saw little benefit in identifying either the disability needs of clients, or the houses that would match those needs. Typical comments were:

*“Families look for modifications in houses without telling the agent.”*

*“People usually make their own modifications.”*

*“ACC comes in to do the modifications.”*

**Table 5.6: Demand versus Supply for Owner-occupied Housing for People with Moderate to Severe Mobility Problems**

<b>Demand and Supply Balance</b>	<b>Real Estate Agents</b>	<b>% Agents</b>
Demand exceeds supply	28	47.5
Demand meets supply	27	45.8
Supply exceeds demand	4	6.8
<i>Total</i>	<i>59</i>	<i>100.1</i>

### **Agents’ Views of Modifications**

5.26 Real estate agent responses indicate the most common housing features or modification typically sought by people with disabilities and older people is a house that is easy to access – drive-on or flat access, single level dwellings with no steps. Other modifications commonly sought included:

- Widened doorways or hallways
- Grab or hand rails
- Easy-to-get-at toilet
- Lowered benches or sinks.

5.27 Table 5.7 sets out the full list of modifications identified by real estate agents. The ‘other’ category of modifications included: internal access garages, low maintenance, warm heating, and gardeners, cleaners, handy-men in the local area.

5.28 Agents were given a list of modifications and asked to identify how many houses they had sold or shown in the last six months, which had any of the modifications. Wet shower areas, grab or hand rails and flat access/no steps were the features most often identified from among houses shown over the past six months (Table 5.8). Typically the agents in this survey reported showing people around 125 different houses over a six month period. It is estimated that in total the agents in this survey had shown people around 611 houses over a six month period.

**Table 5.7: Modifications Typically Sought by Real Estate Agents Clients with Moderate or Severe Mobility Disability (N=81)\***

Modification	Real Estate Agents	% Agents
Easy-to-get-at driveways, ramp or street level entrances, one level no steps	53	64.4
Wet shower area	32	39.5
Widened doorways or hallways	27	33.3
Grab or hand rails	24	29.6
Easy-to-get-at toilet	13	16.0
Lowered benches or sinks	9	11.1
Easy-to-get-at passenger drop off or pick up areas	5	6.2
Bed or bath lifts	4	4.9
Automatic or easy-to-open doors or windows	4	4.9
Elevator or lift device	4	4.9
Lowered switches or power points	2	2.5
Visual or flashing alarms	1	1.2
Other	8	9.9

\* Multiple response

**Table 5.8: Features or Modifications Available In Houses Sold/Shown Over The Previous Six Months \***

Modification	Number of Houses
Wet shower area	106
Grab or hand rails	99
Easy-to-get-at driveways, ramp or street level entrances, one level no steps	93
Widened doorways or hallways	42
Easy-to-get-at toilet	19
Lowered benches or sinks	5
Bed or bath lifts	3
Elevator or lift device	1
Lowered switches or power points	1
Automatic or easy-to-open doors or windows	0
Visual or flashing alarms	0
Easy-to-get-at passenger drop off or pick up areas	0
Emergency call system	0
Lever door handles	0
Audio warning device	0

\* Multiple response

5.29 Consistent with Table 5.8, most agents reported that they only had a few modified houses on their books in a six month period. Others said houses had some of these characteristics but they hadn't been modified specifically for people with disabilities. Apartments in particular were often noted as being access friendly.

*"Maybe two or three houses with modifications in the last six months."*

*"About five houses have had modifications in the last six months."*

*"New ones [apartments] tend to be built with ramps."*

*"More and more new houses have opportunities for disabled people built into them."*

## Modifications & House Values

5.30 Sixty-nine real estate agents commented on the impact of modifications for disabled and elderly people on house prices. Nearly a third (31.8 percent) said modifications resulted in no change or increased house values (see Table 5.9). Notably, there was a strong suggestion among agents that:

*“Buyers generally don’t see modifications as a disadvantage.”*

*“It’s been an advantage in the ones I’ve sold”.*

**Table 5.9: Impact of Modifications on House Values**

Modifications Value Impact	Real Estate Agents	%
Increase house value	17	24.6
Decrease house values	13	18.8
Impact depends on the type of modifications	34	49.3
No change	5	7.2
<i>Total</i>	<i>69</i>	<i>99.9</i>

5.31 Nevertheless, nearly half (49.3 percent) said the impact of modifications on house values depended on the type of modifications. Some suggested certain modifications might not affect the value of the house but might limit people’s interest which could make the house harder to sell. As with many house characteristics, agents tended to believe that it “depends on the buyer”.

5.32 Table 5.10 sets out a list of modifications and the proportions of real estate agents reporting an increase or decrease in house values for each modification.

**Table 5.10: Proportions Of Real Estate Agents Reporting An Increase Or Decrease In House Prices As A Result Of Modifications**

Modification	% of Agents Reporting Increases House Value	% of Agents Reporting Decreases House Value
Easy-to-get-at driveways, ramp or street level entrances, one level no steps	12.3%	22.2%
Wet shower area	9.9%	16.0%
Widened doorways or hallways	8.6%	3.7%
Grab or hand rails	3.7%	6.2%
Elevator or lift device	2.5%	0.0%
Easy-to-get-at toilet	1.2%	4.9%
Visual or flashing alarms	1.2%	0.0%
Easy-to-get-at drop off or pick up areas	1.2%	0.0%
Lowered benches or sinks	0.0%	6.2%
Bed or bath lifts	0.0%	0.0%
Lowered switches or power points	0.0%	2.5%
Automatic or easy-open doors/windows	0.0%	0.0%
Emergency call system	0.0%	0.0%
Lever door handles	0.0%	0.0%
Audio warning device	0.0%	0.0%

### **Matching Clients to Houses**

- 5.33 Less than a fifth (18.5 percent) of real estate agents surveyed reported keeping a register of dwellings for sale or rent that have modifications. Some said they did not have enough demand for, or supply of houses with modifications to need a register. Others suggested that as many households are happy to make modifications themselves they're not necessary looking for houses that have pre-existing modifications.

*"Not a register, but we know which houses have those facilities."*

*"If you've got a modified house you advertise it as such."*

### **Developers, Disability and Housing**

- 5.34 The housing stock in New Zealand is marked by a gradual transition from older to newer stock. Each year some stock is demolished or falls into disuse. Each year more stock is added. A very small minority of new stock is added through individuals commissioning individually designed dwellings. Most is added by way of developers and builders acting as developers. Developers tend to be conservative in their design and building practices. Consequently, the dwellings that are added to the stock each year, and they are only a minority of all the housing stock in New Zealand, tend to look like and perform relatively similarly to other 'newish' stock.

- 5.35 Innovation in the housing sector tends to be by way of developers who voluntarily and purposely position themselves in the innovative, usually higher end, segment of the market or are required by external drivers to seek innovative solutions. It is in the innovative segment of the market that it might be expected that accessible housing design and construction is occurring. To get some insight into the likely take-up of accessible housing design and responsiveness of the new stock to the needs of disabled people and their families now and into the future, the research undertook in-depth interviews with two organisations that are developing new residential property in this 'innovative segment' of the market.

- 5.36 Superficially the organisations would seem very different. One is Housing New Zealand Corporation and the other is a private company with a consortium of shareholders. The former strongly targets very low income groups and people who are highly marginalised on the housing market. Housing New Zealand provides and manages New Zealand's state own rental stock. Its development activities are shaped by considerable fiscal constraint, a need to address significant housing need unmet by the workings of the housing market, constraints on access to land, and imperatives from Government about sustainability. It is frequently confronted with the costs of re-developing brownfield sites rather than moving into greenfields. By way of contrast the private development company is focused on higher income groups or, at least, those households able to move up the housing market. They have significant greenfields developments and see themselves as providing aspirational and sustainable housing opportunities.

- 5.37 But these two organisations have some characteristics which they share. Both are involved in developments in which they have long-term managerial involvement. The reputation of both organisations, consequently, rests, in part, on their ability to develop, build and manage neighbourhoods that work well over the changing life stages and needs of the residents who live there.

The Government requires Housing New Zealand Corporation to be concerned with sustainability. The private development company has positioned itself in the market as a sustainable housing provider. Both confront very real constraints on access to land and both are concerned to maximise both housing supply and sustainability by adopting built forms that avoid the very low densities of the past while at the same time avoiding the ‘squash’ of large detached houses on small sites that have increasingly dominated new developments as land prices have increased.

- 5.38 The in-depth interviews with these organisations were semi-structured conversational interviews which focused initially on one recent development for each organisation. The Housing New Zealand Corporation development at Lynnfield and a masterplan community still in development in Papakura.
- 5.39 In part the interviews were designed to establish the extent to which accessibility and the needs of disabled people were explicitly recognised and responded to in the context of those developments. In particular, we were concerned with whether the developments used indoor designs which maximise mobility inside and reduce the costs of adaptation if a resident moves in or becomes disabled and/or designs which maximise access into and out of the dwelling and around its outdoor space.
- 5.40 In part, however, we were concerned to simply establish the extent to which the broader issue of future-proofing the stock for higher disability prevalence was part of the strategic planning for each organisation or seen as a significant market driver. The interviews, consequently, focused on exploring four questions:
- what the demand for accessible housing is likely to be in the future
  - what the drivers for that demand are (eg. ageing or something else)
  - what sort of design and construction features do they think are important to ensure accessibility, and
  - whether they are targeting any group of mobility compromised disabled with their buildings and if so why.

### **The Development Company**

- 5.41 The Development Company is one of New Zealand’s largest master plan developers. Established in 1998, the organisation’s projects focus on the greater Auckland region and include commercial, mixed use and residential developments. It sees itself as a design-led company in the midst of an industry that typically is concerned with simply replicating the housing of the past. They explicitly see themselves as attempting to change New Zealand’s current development cycle of “poor design, mediocrity and conforming to minimum standards” and delivering “a complete and balanced development every time” and this includes economic, social and environmental benefits as well as sustainability.
- 5.42 They are pursuing a reputation-based segment of the market in which they are seen to deliver homes and buildings that:
- use less energy and produce less waste,
  - are healthier, safer places to live and work,
  - will last longer and become more valuable,
  - create better communities with greater diversity and choice but with a strong sense of place and identity, and

- are sensitive to their context and heritage but contribute and enhance our urban environment.
- 5.43 The development on which the interviews initially focused is located about 30 minutes by car from the Auckland city centre. It is placed on a greenfields site on the urban fringe and is being developed in stages and is expected to include around 1500 homes ranging from detached, large 'family' homes to modern terraced housing. There are currently about 170 dwellings built on site.
- 5.44 Three interviews were undertaken with key staff working closely with the development during early December 2006. They were the information centre manager at the site, the project director and the retirement village project manager. The latter has been recently recruited to the development company to expand the company's portfolio into retirement villages.
- 5.45 Even in its early stages the development company sees it as attracting "a real cross-section – there are a lot of families in here and there are older people as well". But in relation to the needs of older people and issues of disability there was a tendency to see the 250 unit retirement village (due to begin construction in 2007) as the primary response to ageing and disability. The houses in the rest of the development were described as:
- "Not having any agenda in them for ageing or disability...we haven't talked about that and haven't really done that – I'm not saying we couldn't but we haven't."*
- 5.46 The staff saw significant tensions in the market among consumers that they try to balance and which results in limiting the diversity of the stock.
- "...people don't just buy to fit their needs...they buy on the basis of 'can I sell this easily', so even though they are a couple they might buy a four bedroom house and even if they are single they might buy a three bedroom house or a three bedroom terrace house, not because it suits them better but because they know they can sell it easier when they go to sell it...so what happens then is that you tend to build three and four bedroom houses."*
- "...they are scared to buy just a two bedroom place because of the limited market...and your cost associated with it is not that much different, land area is roughly the same with a two-three bedroom so the price difference doesn't warrant it – if you get a large price difference then some will come and buy the two bedroom because that is all they can afford but, by and large, if they can buy the three bedroom then they do."*
- 5.47 This preoccupation among consumers with 'tradeability' drove a significant change in the development itself. The initial designs were predominately three bedroom free-standing homes but demand led to "about 50" of these being redesigned into four bedroom dwellings, despite the occupants often being only two people.
- 5.48 The other driver has been a response to a perceived consumer demand for security. This, along with the desire to increase densities among local authorities in the Auckland region, has led to a design response in which two-storey dwellings are being built.

*“When you survey the community one of the things you will find is that security is a high priority so two storeys are good for things like that because you’ve got the bedrooms upstairs in a general sense...now you might put another bedroom downstairs and we have done that in a lot of cases...but in the main people are upstairs and with only one stairway up there they feel more secure, regardless of whether they are or not they feel better – theoretically you can put your monitors on downstairs and you are more secure...”*

- 5.49 While some older people are not concerned with stairs and some disabled people can still negotiate stairs, the development company recognises that the housing structure excludes part of the property buying market:

*“We made a decision to go two storey ...and to get the density requirement with good urban form we made quite a conscious decision to go two storey, which brings in itself a set of problems either associated with the elderly or people who are immobile. And, by and large, the elderly prefer single storey and we knew that when we made the decision to go two storey it would limit our sales to elderly people. However we knew we would get more sales because of the way our design was – a smaller footprint which for the general population would have attraction, so we made a conscious trade-off, a conscious decision to do that.”*

- 5.50 Some dwellings, however, have been designed to make it possible to live on a single level. These dwellings have a bedroom and ensuite downstairs that was designed for those “who didn’t mind having a three bedroom home but preferred to live on the same level”. This is seen as being attractive to some families with an older or disabled member living with them, or to people who are content to have a number of spare rooms upstairs.

- 5.51 In reflecting on the adaptability of the dwellings and designs, the development company identified real limits to adaptation but some features that also would promote accessibility. Ultimately, however, the dwellings have not been designed for adaptation.

*“We haven’t designed them to be adaptable...as I said you can live on one floor but we haven’t put ramps in [although] not many of them have got more than one step up and you can easily turn that into a ramp – either front or back. Sure at the moment you have to go over a little sill but you can get little rubber things to go over those which involves retrofitting them so you could live on one level but you couldn’t live on two levels...we haven’t allowed for lifts. Generally our market is what I would call low-medium in size so we are using up every bit of the house for something so if I put a lift in I would have to exclude something or expand my house. I couldn’t just use a bit of room up because it isn’t there. I don’t have enough room in my entryway or at the back of my entryway so I would have to redesign to allow that.”*

*“We haven’t got anything like wheelchair toilet access and generally not wet area bathrooms – you could, because they are waterproofed, but they haven’t been built for that...”*



- 5.52 The design features promoting accessibility include:
- largely flat outdoor areas with few steps to the house
  - wide gates
  - lever door handles
  - large cupboard handles
  - handrails on the stairs
  - wide opening ranch sliders and
  - open plan ground floor design.
- 5.53 It was noted that the covenant restrictions on the development did allow for adaptations such as:
- raised gardens
  - ramps
  - grab rails.
- 5.54 It was also noted that there were opportunities to adapt the dwellings at the planning stage. Although as fewer houses are being sold off the plans and most are sold as completed houses, it is becoming increasingly difficult to do this. While there have been “about a dozen” enquiries about the possibility of installing a lift, there have been no enquiries to adapt any of the houses for any reason thus far and staff had not seen any great levels of demand for houses that incorporate features to improve accessibility and the quality of life for older and/or disabled residents.
- 5.55 For the development company, demand and price elasticity were major drivers. The staff recognised that latent demand was an issue and lack of knowledge and experience constrained both what consumers ask for and what the industry supplies.

*“Sometimes these things [ageing and disability] feature [as demand and/or design drivers] but often you don’t respond to it until you see the demand there.”*

*“I don’t know much about it because we haven’t had any demand...that doesn’t mean it’s not there, [they] might just come in and think ‘oh these guys don’t have it’ but I haven’t seen it that loud, might be that we haven’t heard it yet...could be that it’s not [un]til you do it do you realise that it is going to happen...people might not expect it so might not ask for it, they might assume that they will have to get by with what you have got.”*

*“Generally what people do is make do in a normal house.”*

*“...these things haven’t featured high on our radar, until now, and probably still isn’t [sic] now either...”*

- 5.56 For the development company, the desire to be on the ‘leading edge’ is constrained by their perception of cost, tradeability and their perception of the impact of differently designed dwellings on their masterplan and the design values they are marketing.

*“If you put a lift in your house you are starting to put the price up and when you are looking at \$12,000, it adds up, plus you have to design them in the first place...”*

*"I'm not sure it would add value and be a marketable thing – see going single storey, that compromises some other things so at this stage we are not wanting to do that and I am not sure that the demand [is there] to specifically make a house like that and then market it like that...I think you would have to put a lift in you see and we haven't looked at it, haven't done any marketing along those lines so how big is that market? And how responsive is that market?"*

*"You wouldn't want properties dotted around with particular features [lifts] that not everybody would want because that would just be a silly marketing exercise wouldn't it?"*

- 5.57 It was assumed by staff that in the retirement village many accessibility options would be included in the plans. At the present time, the retirement village represents the only accommodation in the development which is designed around access. In the retirement village "tradeability" is also a market driver, but in a different form. While the tenure of the retirement village has yet to be decided, retirement villages tend to work on systems that involve people trading financial capital and capital gains for security and care:

*"...in most cases they own the houses but they forego capital gain...the agreement is usually that the retirement village can buy the house back at the same price it was sold for or less...so you do that at a particular point in your life, when you get something back... that you feel is worth it – you look at what you are getting and think that I can trade that for financial gain...for my wellbeing."*

- 5.58 The development company's aim in the retirement village market was to expand the "very small" market for retirement village units by offering a design "substantially different" from traditional retirement villages:

*"All the elements that have been important in terms of setting up the master plan – the urban design, the creation of these communities, issues of security and how neighbourhoods work are all relevant to retirement villages because I guess they are master planned communities in miniature and so what we have been doing in retirement village is to try to develop a village that is connected to the wider community rather than one which is isolated and fenced off. Typically if one was developing a retirement village you would go and find a piece of land and then plan a village on it and it would be constrained by what's around there, where we have had a lot more freedom, because we weren't restricted to where we located it so we could test different options and look at what would be best from a retirement village point of view."*

*"...the village has been designed so that there will be access points [for general public] and a degree of permeability but the design will really designate it as private space but it is certainly going to be visually – people will be able to see in..."*

- 5.59 The development company believes that retirement villages appeal to "only about five percent of people over the age of 65" and the village will likely only appeal to independent people aged "between the ages of 70 and 90". Many of these people will come from the surrounding area.

*“Our market, traditionally...in terms of my experience, the market for retirement villages does tend to be quite local...you probably find that 80% of people will come from within a 5-10km radius. So we are targeting people who are already in the area, who have already been exposed to [us] and in time who are already living within the development and decide to move into the village, or they may have children living in [the development] – people either...It’s a generalisation but people either retire or move to a retirement village within the community in which they have been living because they have got all their community ties there or they move to where their children are.”*

*“...what we are trying to do is provide a retirement community which responds to that needs of that particular demographic – the key features are really security, companionship, access to amenities and access to care – now we are not providing healthcare as such but we felt that the location that we have chosen gives us the best opportunity to meet those needs, particularly in terms of security, in terms of providing access to amenities...it’s close to the retail complex that will be developed. It has access to [the] park across the road and it’s reasonably close to the shops ... and that’s quite important. It’s walkable for an able bodied older person or an easy drive...”*

*“We didn’t want to undermine the promotion that [you can have] has been security without fences...so what we have done is use, as far as possible, the buildings to provide a secure perimeter and rather than have the retirement units facing inwards and being fenced, we have faced them outwards so that people can have a connection with the outside community but they are designed in such a way that they are accessed by car and by foot through the inside of the village...it’s providing security in a way that we are not relying on fences...”*

- 5.60 There are two types of unit proposed for the retirement village – apartments and villas. Apartments will be three storeys high with each unit on one level. Access to the upper levels will be by lift. Villas are single storeyed attached units with a high stud to “create a more interesting profile or streetscape but keep the living on one level”. The design of the units is described as an “art”:

*“...there has been a great deal written about designing units for the elderly...and one can design things that kind of shout out ‘look at me I’m a building designed for old folks’ and that is a huge turn-off. So the art is to design buildings in a way which make it easy for people with limited mobility but without appearing any different from anything in the wider community and a lot of it is just tiny little details. We don’t design the units for disabled use as such but we have wider doorways especially in hallways and sufficient space in bathrooms so you can get a wheelchair around. We don’t provide disabled showers as such but if somebody wanted to come and live in the village and they needed a disabled shower then we could modify it very easily...”*

*“If you take villages that have hospitals and rest homes, well that appeals to a certain group of people but then there is another group which says that I don’t want to see all that stuff – I don’t want to be reminded everyday. So they don’t want in their units’ disabled showers and grab rails everywhere. If they need them we design them such that they are very easily fitted and we offer them as options when people move in but*

*we don't try and say 'this is it – welcome to decrepitude'...so it's very subtle – things like door handles – we don't use round door handles we use levers, avoiding sharp corners, plugs and light switches at a level that anybody can reach from a wheelchair or without having to bend down, drawers, cupboards and kitchens particularly – avoiding very high and very low, looking at where we place the microwave...a lot of the architects are men and 80% of the people who live in villages are women, and a large number of those are very tiny women...so you know you've got to be aware of their needs and keep the most commonly used things in an accessible range."*

- 5.61 The process of interviewing the staff acted to stimulate reflection on what might be done in the future in the development for the dwellings outside the retirement village. In the course of the interviewing, staff began to identify features and possible options to increase accessibility:

*"I could do a small little precinct out there [incorporating things like wider doorways etc] and it would have value...we have had enquiries from a few people already so it has obviously got value, especially for single storey houses."*

*"...you might do five percent of your housing or something like that – scatter it through and then market them accordingly..."*

*"...possibly because these markets are not identified enough and they do tend to be...separate...The disabled market does tend to be in a separate box and it puts itself there as well and so I think it would require...an advocate to go around and talk to the right people and say 'this is an option'. Not necessarily saying that 1 in 20 houses should have wider doors, lower benches and a wet area shower but its not silly is it, explaining what would be required for easy adaptation...there must be a lot of things that could be done just to make this easier for people..."*

- 5.62 The key things that were seen as worthy of consideration for incorporation into a small percentage of house designs were a wheelchair access toilet, a lift, a wet area bathroom, wider doorways, ramps and lowering the height of switches and raising the height of plugs. In relation to the public and outdoor spaces the staff noted that they were very accessible with:

- wider than normal footpaths
- considerable public seating
- seamless joints from the footpath to the road.

*"You can get around the neighbourhood easy enough – we've got pram crossings and it's all flat so it's easy and the footpaths are wide so all those things are ok..."*

- 5.63 But opinions were divided on the accessibility of the public spaces and amenities which consist of, along with the residents-only facilities within the retirement village (bowls, petanque, a swimming pool and a gym), a number of local facilities (many still in the planning stage) including a local retail area, community centre, small parks, public seating and larger playing fields.

*"..if you did audit [the public spaces] you would find that if you went for a walk as a disabled person it would be very user friendly."*

*“We would fall short on an audit for disabled people and I have never thought of it before really.”*

*“The idea of mainstreaming disability hasn’t really taken hold...”*

- 5.64 Several themes emerged from these three conversations:
- The limited development of accessibility as a market driver, either for the industry or among consumers.
  - The dominance of perceived tradeability as a driver for consumers and the industry response.
  - The separation of accessibility and adaptability from the prevailing views of sustainability in the built environment.
  - The on-going currency of retirement villages despite ageing in place policies.
  - That accessibility issues can be easily incorporated when developers begin to focus on them within standard design paradigms.

### **Housing New Zealand Corporation**

- 5.65 Housing New Zealand Corporation is the largest social housing landlord in New Zealand. To fulfil its social responsibilities as defined by the Government and to meet the housing needs of those who are unable to afford adequate housing in the private rental or owner occupier markets, Housing New Zealand Corporation is in a continuous process of stock renovation, redevelopment and development of new stock. To explore the issues for Housing New Zealand Corporation with regard to people with mobility problems, interviewing focused on the Lynfield complex, a purpose-built housing development for pensioners on a greenfield site in suburban Auckland.
- 5.66 Now about five to six years old, the nature of the waiting list in Auckland in the mid to late 1990s meant that the original plans for Lynfield were for ‘mixed’ housing. That is, a combination of housing styles to cater for a diverse range of households. However, during the consultation phase in the late 1990s it became apparent that the local community was very much opposed to a ‘general housing’ complex. As such, the target was re-aligned to ensure local acceptance to re-housing existing older tenants into smaller purpose built homes thereby providing older people with what was seen as more appropriate housing and releasing other Housing New Zealand Corporation stock for families.
- 5.67 The complex was opened in 2003/04. The tenant population has been very stable and demand for units in the complex from older people has consistently outstripped supply. Because of this, only people over 65 are eligible to apply for any vacancies that might arise.
- 5.68 Three interviews were undertaken with key HNZN staff. Interviews were semi-structured and lasted about 40 minutes each. Each of the interviewees had a quite different role in relation to the complex. One had volunteered to be the first Tenancy Manager in 2003 or 2004 and remained in that role for 18 months. Another recently took over as Tenancy Manager for the complex. The final interviewee was the Area Manager at the time the project was commissioned (1998-9) and was involved in the early stages of construction and community consultation.

5.69 All the interviewees note that the pressure for Housing New Zealand Corporation housing in Auckland is intense. The demand is diverse and targeted through an allocation model that identifies those with the highest existing housing need and with the lowest capacity to resolve those needs. The allocation model tends to target families with dependent children. Both older people and younger people tend to be less likely to move up the prioritisation process.

*“...in the Auckland context there’s a huge waiting list so we haven’t got enough properties to cater for that waiting list...that’s our primary demand: large families, elderly couples, young families, young couples, single people – right throughout the spectrum.”*

5.70 Because there is a view that ageing is likely to impair mobility, Housing New Zealand Corporation has integrated “elderly friendly” construction outline specifications application to pensioner housing, as well as in Section 57 (Disability Modifications) of their housing specifications.

5.71 “Elderly friendly” construction includes:

- a main bedroom that is a minimum of 11m<sup>2</sup>, excluding wardrobes
- bathrooms and toilets that are combined
- power points that are 600mm above the finished floor level
- sensor lights to the front and rear entrances
- external doors are a minimum of 960mm wide
- internal doors are a minimum of 910mm wide
- all door handles are levers.

5.72 In addition to the standard “elderly friendly” specifications, “fully modified” units have:

- 910mm doorways throughout the unit
- hallways that are 1200 wide
- master bedrooms at a minimum of 12m<sup>2</sup> excluding wardrobe
- bathrooms are ‘wet areas’
- toilets are modified and include grab rails.

5.73 The costs of refurbishing and limitations to making existing dwellings accessible were noted.

*“Those older [pensioner units] ones are being refurbished as well and they are made more roomy...a lot of those [Auckland] ones were pretty grotty and had been for a long time so rather than just patch them up we are refurbishing them and trying to drag them into the 21st century but even so, you can only do so much because we have a limited budget and the older ones have been improved but they’re not as good as the [Lynfield] ones.”*

5.74 Since the Lynfield development Housing New Zealand Corporation’s new construction specification requires lever door handles for new and replacement exterior doors. Interior door hardware usually involved replacing like with like. Housing New Zealand Corporation tends to adapt dwellings as specified when required by a person with a disability in the context of the usual disability needs assessment process.

*“Some [features are universally applied] yes, and some [are] not. Because some houses are built with three to four bedrooms for a family it doesn’t make sense to have some of these features because when people move into the elderly age group these houses are too big for them so it is better for them to move on into houses that are specific for their needs...”*

*“...because if you are catering for families, the needs of families and the needs of elderly people are different...so the demand specifications are very very different... in those family situations where you have got a family in need of modifications then those units are modified – it’s all tailored...things like lever handles aren’t standard, no...it depends because sometimes when properties are offered to us they are near completion, whereas when we construct from new it’s different, we can specify those things, and we do most of the time...wider hallways not standard when constructing, only for elderly friendly...”*

- 5.75 In general, then, there is a tendency to see the housing response essentially as a generalised response for older people likely to require pensioner units or, alternatively a customised response for an individual with a specific disability. With regard to older people, there was a view that the Housing New Zealand Corporation was becoming more responsive to needs that had been longstanding:

*“I think that it has always been there but I think that in this day and age people are more conscious and focussed on that so it’s about the same. There’s always been the demand there I would say it’s just that now we are targeting them and constructing units to cater for those things whereas in the past it was just general housing...”*

- 5.76 Lynfield, itself, is seen as somewhat unique in the context of Housing New Zealand Corporation’s stock and even in the context of its pensioner stock. It is three storey and “sort of a more modern style” with all units incorporating elderly-friendly construction specifications and six ground floor units specifically designed for tenants with a mobility disability (primarily wheelchair-bound tenants).

*“...when I saw those units ... before they were occupied I thought ‘Wow! This is amazing! I’d love to live here! They’re like hotel rooms, they’re very well-designed, state of the art and they’re really nice. And that in itself is probably a major selling point...”*

- 5.77 The complex is not seen as developed for people with high needs. Tenants at the complex thus tend to be in their 50s, 60s and 70s and are mostly “still fit and strong, still healthy, [with a] good lifestyle”. The units, including the “fully modified” units on the ground floor, have been designed with this in mind.

*“Initially...our major priority was pensioners living in larger houses that may have moved in the 50s with a family. The family have all grown up and left home and they are living there by themselves in a three bedroom home...and after that we just looked at people on our waiting list that are 55 plus...”*

*“And so these are for those sort of people – 50 upwards to people in their 60s and 70s. And for those people, quite often in practical terms they have families visiting them, grandchildren coming to stay for the weekend so we don’t build one bedrooms and that’s the reason we build two bedrooms.”*

5.78 The design of Lynfield was described as:

*"[we include] security and level access, lifts, wider corridors, wider main front doors...smoke detectors, waist level switches, wet areas, non-slip tiles and a whole lot of things...lever taps and door handles". For the most part the specifications have been very successful in comfortably accommodating tenants over 55.*

*"They are one or two bedrooms where they can have a caretaker and they can have their own room and they have a lounge and a open plan kitchen so the kitchen is very comfortable and they have the laundry, toilet and bath in one place"*

*"...as you come through the front door you've got a kitchen on your immediate left with only a bench separating the kitchen from dining room/lounge – dining room/lounge are one and the same. And then most of them are two bedrooms so you've got a bedroom coming off either side of the lounge. And then they've got patios. In terms of views and such, depending on which side of the complex you're on and all that....and then you've got lifts and parking, there's plenty of parking."*

*"...they have the handles that you push down...they are very spacious for their chairs to move easily. Some people even take their mobility scooters inside..."*

5.79 Units on the second and third floors have lift access as well as stairs. The provision of lifts was seen as particularly problematic when the units were designed. There was some initial anxiety from staff regarding accessibility, thinking that "lifts break down and we would have all sorts of problems with lifts." This has not been the case. The provision of lifts has, in fact, stabilised the tenant population.

*"...on the other two levels there are a few people whose health has been deteriorating since they moved in and they are now finding it much harder to get about but generally we haven't had much call for people wanting out of [the complex]... the lifts are nice and wide, convenient to use...you could put your mobility scooter in a lift but most leave them downstairs..."*

5.80 Nevertheless, subsequent accessibility adaptations have had to be made. The connection between indoors and outdoors is one area cited. Features such as grab rails and ramps are not included as standard but have been added to a number of units as the need arises. Needs assessments are done in conjunction with HNZA Case Managers and the Auckland District Health Board.

5.81 All of the units have immediate access to an outdoor space and "there should be a flow from inside to outside". On the ground floor this is a shared garden area, and upstairs units have balconies. All outdoor areas are level and there are paved access ways to both front and rear doors as well as to the clothesline, parking facilities and to other blocks. Standard units have a small step between the indoor and outdoor areas, but several have since had ramps fitted to ease accessibility. Similarly, with grab rails.



*“see here everything is in one place – the bathroom, toilet and laundry is in one place – and with the help of the DHB they have railings and stuff but we don’t install them for all the houses, as I said. They are designed for older people but certain changes have been made later on suiting the needs of the people in residence, through the DHB. That is partly because older people don’t want these things until they need them. They want their independence.”*

*“When the need arises we will take action, rather than do it earlier we...do it when we need it. It doesn’t make any difference if there is an extra cost to the ramp we only put it there if there is a need...”*

- 5.82 Finding the right balance between accessibility and customisation for particular needs became evident in the development of Lynfield:

*“One interesting thing we learnt from Lynfield was we in fact fully modified I think 5-6 units on the ground floor whereas the rest were units that we call ‘elderly friendly’...but what we learned was that – and that was an expensive lesson – was that we should not fully modify any units when you don’t have any customer in mind...because fully modified units normally have to cater for specific needs of customers and a good example in Lynfield was that we allowed for bench tops that were lower than normal for wheelchair friendly use but what we found was that some of the people who moved in had live-in caretakers [able-bodied] and it wasn’t useful for them so we had to raise the benches again. What we found is that it is not good to have fully modified units, if you have to modify them for a customer, then you modify them, just for the specific needs of that customer. “*

- 5.83 There was also a view that it was important that accessibility was done in such a way as not to label people as disabled. The built environment should not “confront people with all the time with the fact that they are ageing.” At the same time, it was also recognised that tenants frequently often do not ask for adaptations that would make their lives easier, particularly if they feel that this might mean that they have to move from a convenient neighbourhood. In Lynfield there is a strong desire to stay because of the proximity to local facilities and good transport routes and part of it is the social connection.

*“...just next door you’ve got the Lynfield shopping complex where you’ve got 24/7 supermarket, you’ve got doctors, chemist, post shop, banks, 2 bars and lots of takeaways and all that...and its quite flat so you could actually you know survive without ever having to go further than the shopping centre next door...”*

*“The people who live there know it was meant for them, made for them so they like it and they keep it very clean. They really take care of their houses, they make it their own. After they have moved from somewhere else they make it their own. There is a sense of belonging, conveniences, quiet place and accessibility – lifts to the top floor and flat walking...”*

- 5.84 Designing to allow disabled people a feeling of connectedness was as important for the Housing New Zealand Corporation staff involved in the complex as some of the physical accessibility features. Social connection to the other tenants is partially facilitated by designing the units “so that the living areas face the common area, because quite often the elderly are sitting at home, so they have a visual view of what’s happening outside so they can keep an eye on each other...”, as well as providing an empty unit for use as a “social room”.

*"I think the most successful thing is that the tenants there seemed genuinely happy to be there and seemed to be quite in love with the place and ...they very quickly developed some sort of a community. Now there was a spare unit which was set up for them to use as a social room but it was completely empty. There was nothing in it. They...decided to set up a social club and they asked us for funds but we said sorry we haven't got any to give you but I did sort of help them along with advice and different options and that, and through things like raffles and donations and things like that they set this social room up, fridge, microwave and they've got a library of books and videos and games like monopoly and darts and they have various fundraising things and go on bus trips and things, which they have all done themselves...originally they wanted the easy way out – 'we want you to organise it for us' and I came back and said 'no, you guys, it's yours, you take ownership, you organise it' and they took that up and they did, I was actually really amazed. They set it all up pretty quickly, within a few months..."*

- 5.85 Lynfield is not 'marketed' but its reputation has spread among Housing New Zealand Corporation tenants with requests for accommodation at Lynfield being constant.

*"...the tenants themselves have been really rapt in the place and loving it. And there's a lot of demand – a lot of people come in and say 'I'm a pensioner, I want to go to [the complex]' so that's...a fact that it is well known in the community and the tenants themselves seem quite happy."*

- 5.86 Several themes emerged from these three conversations:
- The tendency to conflate disability with ageing and separate the notion of families in need from disabled housing.
  - The recognition, but not the resolution yet, of the need to both maximise the accessibility of dwellings while also allow for customisation.
  - The importance of neighbourhood and location if people are to be independent.
  - The importance of accessible design as a way of reducing residential movement and encouraging ageing in place.

### **Summary and Key Issues**

- 5.87 The research explored the extent to which the housing sector is responding to and likely to respond to the needs of disabled people and the rising incidence of severe and moderate impaired mobility through surveys of the community-based housing sector, real estate agents and two major developers.
- 5.88 An interesting contradiction emerged from that research. Both the community sector and the private sector stakeholders saw the demand for accessible housing as likely to stay at current levels or rise. They also tended to see demand as exceeding supply. Nevertheless, there was little real evidence of a systematic focus on supplying that market. In the community based sector, a significant number of providers reported that the needs of disabled people were not relevant to their housing services or provision. Disability was frequently conflated with provision of housing services to older people. This also emerged in the in-depth interviews with the private development company. In the real estate industry, there seemed to be little attempt to explore the disability status of their clients or undertake any systematic recording of accessibility features in houses available for sale. There was no evidence that the real estate industry sees disability networks as a potential market.

- 5.89 Overall, it appeared that housing for disabled people and their families was seen as something apart from and marginal to the mainstream housing sector. Staff in the private development company recognised that there could be significant unarticulated demand in the market and staff in Housing New Zealand Corporation also expressed a similar view.
- 5.90 Interviews with that development company showed:
- The limited development of accessibility as a market driver either for the industry or among consumers.
  - The dominance of perceived tradeability as a driver for consumers and the industry response.
  - The separation of accessibility and adaptability from the prevailing views of sustainability in the built environment.
  - The on-going currency of retirement villages despite ageing in place policies.
  - That accessibility issues can be easily incorporated when developers begin to focus on them within standard design paradigms.
- 5.91 The research shows little inclination in the private and community parts of the housing sector to add to the accessibility of the new stock. Nor does there appear to be a means by which already modified stock could be circulated among those who could benefit most from it. The experience of the Lynfield development undertaken by Housing New Zealand Corporation shows that the public sector appears significantly more responsive to accessibility issues, but that this is strongly constrained. Interviews with Housing New Zealand Corporation show real benefits for landlords on developing accessible stock as well as the attractiveness of such stock in the market. Even there, however, developing the full stock as accessible is not seen as practical.

## **6. SOME LESSONS FROM INTERNATIONAL TRENDS**

- 6.1 Overall, it may be said that the responsiveness of the supply side is patchy and often inadequate. There is little understanding of the housing needs of disabled people and their families, of the need for customised requirements and of universal design. It is notable that the selected review of accessible housing policies and programmes in Europe, North America, United Kingdom, Japan and Australia shows that this is not unique to New Zealand. Several of those countries have introduced regulations, capacity building programmes and incentives in an effort to grow the skills and expertise of the construction industry and the housing sector to provide well designed, accessible stock.
- 6.2 Internationally, there is rising interest in the interface between housing and disability. That interest has been driven by three distinct trends. Firstly, a major demographic transition in which the populations of most industrialised societies are ageing. Secondly, there appears to be increasing disability prevalence, partly driven by ageing and partly driven by improved survival rates among those affected by disabling injuries, conditions, or illnesses. Finally, the disability sector has been increasingly concerned to position disabled people within the international human rights agenda and reinforce their rights to be included in and productively participate within the communities in which they live.

- 6.3 Two broad approaches to addressing disability have emerged: the human rights based approach, and an individualised, needs-based approach. In the human rights based approach disabled people are characterised as disabled by the barriers they encounter in the physical and social environment in which they live, rather than by an individual's particular functional impairment. This approach leads to a focus on creating accessible mainstream housing, transport, public amenities and services. In the individualised, needs-based approach, the disabled individual person is considered to be disabled by the particular functional impairment they have. The response is directed to modifying the immediate environment used by that individual or providing assistive technologies to optimise their functionality within that environment.
- 6.4 These approaches are not mutually exclusive. Internationally it has been increasingly recognised that if disabled people are to participate in social, economic and familial life they must be able to access the sites in and around which those interactions occur, whether those be domestic or other buildings, transport, or public spaces. The growing integration between social and individualised approaches to disability is reflected in three major trends in relation to housing:
- The development of various accessible housing standards and typologies for the design and construction of the mainstream housing stock, which are directed to making mainstream houses and buildings more accessible for disabled people.
  - Concern with more effective and less costly adaptation of dwellings in which disabled people live.
  - A concern to better integrate assistive technologies into home environments.

### ***Accessible Housing Design***

- 6.5 The extent to which mainstream housing stocks overseas are influenced by the movement for more accessible design is difficult to estimate. In most countries social housing still provides the majority of accessible housing units, either through direct provision or through non-profit housing intermediaries. The most urgent housing needs for disabled citizens are met everywhere by some form of public or assisted housing, while retrofit programmes and private sector new builds are still largely supplementary sources of accessible housing stock.
- 6.6 There is some evidence of consumer resistance to the purchase of new adaptable housing, both from a design aesthetic perspective and from a perception that adapted housing carries with it a social stigma. Other influences are cost increases and a lack of perceived need by younger consumers to own a 'Smart Home'. The perception is that accessible housing is of lower design quality and built in undesirable locations. This is a disincentive for private developers, except where strong financial incentives are in place.
- 6.7 Adaptable or universal design homes are also more expensive to build, although not excessively. Most estimates of the increase in cost to build in adaptable features are between one and five percent of total construction costs. Both Japanese and Norwegian researchers report that incorporating good architectural design into adaptable housing has assisted its uptake in their private housing markets. They also note partnerships between builders,

architects and disability organisations are important for successful housing outcomes. There is some evidence from the building industry in the USA that market appeal of new homes has been increased through incorporating life time design features.

- 6.8 The international review of accessible housing policies and programmes shows that there are three potential pathways through which the take-up of accessible design may be promoted. They are regulation, incentivisation, and market capacity development.
- 6.9 The regulatory frameworks implemented in different countries are diverse. They vary from those directed at achieving a low level of accessibility for public buildings through to a comprehensive requirement for new dwellings to be built to universal design. Overall, a number of points emerge from a review of regulatory requirements around building access for disabled people:
- On the continuum of accessibility, most standards require relatively low levels of accessibility falling into the 'negotiable' or 'visitable' categories<sup>9</sup>.
  - Most accessibility requirements relate to those who have a physical rather than a sensory impairment to their mobility.
  - It has been noted in a variety of research reports that accessible building standards, even where these are compulsory, tend to be poorly enforced.
- 6.10 The most important implication for accessibility is the limited regulatory focus on domestic dwellings. Internationally, regulation for accessibility is most commonly applied to public buildings, social housing and new multi-unit dwellings. Existing dwellings and dwellings in private ownership tend to be least subject to regulatory requirements. Where there are explicit and required standards for domestic dwellings, those tend to be restricted to new dwellings.
- 6.11 The use of incentives by governments to increase the supply of accessible housing is less common than regulation. Incentives tend to be in the form of:
- access to low cost loans for new housing;
  - grants for modification work to existing housing; and
  - planning consent advantage for housing developers who include a percentage of accessible housing in new developments.
- 6.12 A number of points emerge from the review in respect of incentives around building access for disabled people:
- Private sector housing developer engagement relies on substantive financial or planning benefits being available.
  - Difficulties in achieving good quality aesthetic design as well as functionality are widely reported as an issue.
  - Despite incentives in some jurisdictions, there is still generally weak market take-up of universal design housing, by both commercial and individual builders and by home purchasers.

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<sup>9</sup> 'Negotiable' is where a domestic building allows only for assisted access and provides some movement around the lower level, but does not necessarily provide access to a toilet. 'Visitability' is where a domestic building allows independent wheelchair entry to the property, access to the lower level, ability to move between rooms and access to a toilet.

- 6.13 The third way in which countries attempt to increase the accessibility of the mainstream housing stock is to support the capacity and willingness of the construction industry and the housing sector to provide well designed stock. Capacity development tends to be led by a variety of different agencies and organisations, many of which are industry or disability sector based. A myriad of tools and mechanisms are used including voluntary design guidelines, information brokering and promotion of accessible design principles amongst the design, planning and building industries. Some countries also offer national awards to designers and architects, or community service awards for accessible housing projects, as in Australia and the United Kingdom. Information and voluntary guidelines were the most commonly found government activities that focus on the private sector architecture and building industries. An area in which collaborations between the private, public and community sectors is becoming evident is in the development of 'branding' of housing systems. Quality assurance systems are another aspect of capacity development, although there are few examples.
- 6.14 There is debate about how much progress is being made in making mainstream stock accessible. There is cross-country European Union evidence that some of the most prevalent types of disabilities are not well catered for. In Australia too doubts have been expressed about increasing the accessibility of the mainstream stock, especially through the use of incentives. The supply of accessible housing in Australia has been criticised as piecemeal, inadequate and of inconsistent standard.

### ***Housing Modifications***

- 6.15 While making mainstream housing more accessible is increasingly seen as desirable, most disabled people are confronted with living in a dwelling that has not been designed on the principles of universal design. For moderately and severely disabled people, further modification and customisation of their domestic environment has been the major response to supporting their independence. It is increasingly being accepted internationally that a failure to adequately modify domestic environments for disabled people's immediate and changing needs is likely to be associated with rising care costs, deteriorating health and wellbeing, dislocated family relations and recourse to higher dependency housing. Nevertheless, housing modification programmes are the most common way in which countries seek to meet the housing needs of disabled people.
- 6.16 All the reviewed countries have housing modification programmes of some type in place. Those, however, vary in scope, delivery mechanisms and ease of access. The most common access modifications to existing housing are mobility related – the installation of ramps, widened doorways, grab rails and push bars, modified taps and other plumbing fittings, adapted telephones and various types of alarm. Two common delivery mechanisms are through statutory health agencies as medical benefits, or through some form of devolved agency such as a local Council or non-profit organisation, as a grant scheme.
- 6.17 The international literature reviewed indicates that modification programmes typically confront a number of difficulties in relation to:
- administration and assessment of need;
  - adequately expressed qualifying criteria;
  - the adequacy of the financial assistance offered;

- matching of disability with the correct housing modification;
- delays in carrying out building work; and
- the adequacy of resources relative to the level of need.

### ***Increasing Access to Modified Housing***

- 6.18 Given the problems internationally experienced in generating an accessible mainstream stock and getting adequate home modification, there is also a concern to use accessible stock more efficiently by matching stock with house seekers.
- 6.19 One of the issues consistently raised by disability advocates is that modified dwellings are 'lost' to the disabled market through on-selling to non-disabled consumers. Another issue is that buyers and renters seeking accessible housing often have limited knowledge or information about the available stock. The use of registers of accessible dwellings is one method of improving the efficient use of stock, expanding the information base about accessible housing and matching stock with consumers.
- 6.20 Registers operate by identifying accessible dwellings and making available information on those dwellings to disabled people, so that they are able to exercise more housing choice. The use of registers varies across the countries reviewed. A range of agencies co-ordinate registers including central government, local government and non-profit organisations. There are a few comprehensive registries of accessible housing stock for either rental or sale properties. There are many examples of local, non-profit initiatives, and some state or nationwide registers, the latter most notably in the United States and Norway. One long established example is the Massachusetts Accessible Housing Registry, known as Mass Access. Massachusetts State law requires that accessible housing owners allow information about their units to be made available to the public. This appears to have been a critical element driving the quality of this register. Another example is Norway's Directorate of Public Construction and Property (Statsbygg), which carries out registration of accessible and universal design housing in the public buildings within its portfolio and allows individuals to search the internet-based register.

### ***Assistive Technologies in the Home***

- 6.21 Although the use of assistive technologies (AT) in the homes of disabled people is not yet widespread, several trends are observed internationally that indicate uptake may potentially be far greater in the future. These trends are:
- The cost of devices and systems is reducing as the technology platforms they use become mainstream.
  - The next generation of disabled and older people are more open to using technology and have more familiarity, knowledge and information about its uses.
  - Wireless technology and mobile phones are reducing installation and maintenance costs and have the potential to eventually do away with the need for costly fixed wiring installations.
  - As more universal design housing comes into the market, the cost of fitting AT and necessary modifications will reduce. Universal design and barrier free design is far cheaper and easier to build AT into or install later.

- 6.22 The benefits of AT in the homes of disabled people are that they reduce accidents in the home, help to overcome architectural disability (thereby reducing the need for home care services, hospital and rest home admissions), and allow people to maintain their independence and quality of life. AT increases the level of real and perceived safety by monitoring the individual and their environment for hazards, and alerts caregivers quickly when a person is in difficulty. However, there is considerable debate as to the quantum of benefits associated with these types of developments, the rapidity with which those benefits are felt, and the range of benefits.

### ***Lessons from the International Experience***

- 6.23 Overall, the review shows that the development of accessible housing is still characterised by sporadic and uncoordinated development in most jurisdictions. It is clear that customised modification of housing is eased if the mainstream housing stock is designed to meet high degrees of accessibility. However, take-up of universal design in the mainstream stock is still relatively limited in most of the countries reviewed. Increased housing accessibility requires a simultaneous focus on existing as well as new stock, although the ability to provide incentives and acceptance of regulatory requirements is greater in relation to new stock rather than existing dwellings. Internationally, despite rising demand for accessible housing, market responses to that increasing demand are weak.
- 6.24 Those countries most successful in promoting a market response are those that systematically combine regulatory, incentive and collaborative capacity building strategies. Regulation is not, in itself, sufficient. A 1996/97 survey of 18 countries in the European Union found enforcement of accessibility standards was generally poorly policed. The three countries that appear to have been most successful in engaging the private sector in providing accessible mainstream housing (Japan, Norway and USA) offer either financial incentives and/or strong legislative or regulatory frameworks. Financial incentives in Norway and Japan have been shown to encourage the incorporation of universal design into new buildings by private sector developers. Those two countries have also put considerable effort into countering consumer resistance.
- 6.25 Overall, the three most successful strategies for encouraging new mainstream accessible housing appear to be financial incentives sufficiently large to attract private sector housing developers, adoption of elements of universal design into planning and building codes, and strongly enforced building code regulations. The least successful strategies appear to be voluntary guidelines, branding of universal designs and information campaigns designed to encourage the incorporation of accessible features into homes. This is reflected in a clear trend for Governments to incrementally establish more prescriptive policy and regulatory frameworks, in order to increase the supply of mainstream accessible housing, services and urban environments. In societies where populations are ageing faster, regulations for new housing are more likely to be compulsory, apply to aspects of private as well as public sector housing, and to have been in place for a longer period of time.



- 6.26 For disabled people, however, the immediate issue is often the modification of the house in which they and their families live, rather than building or purchasing a new home. The review shows that internationally, housing modification programmes tend to be relatively modest in relation to need. Perhaps even more importantly, the building industry has frequently been unable to provide a good service. There are typically a lack of comprehensive quality assurance and accreditation systems for disability assessment, housing need assessment, accessible housing design and construction. In general, evidence of quality assurance processes was either not able to be found, or reported as either weak or non-existent. There are various building code requirements and guidelines to cover construction aspects of access, but no evidence was found that the professionals engaging with disabled people and buildings have specialist training in disabilities. Conversely, others such as social workers, doctors and local government housing workers, appear to have no training in design or construction.

### ***Summary and Key Issues***

- 6.27 In the northern and western hemispheres, there is an increasing concern with ensuring that the housing stock is accessible for disabled people. However:
- The development of accessible housing in many international jurisdictions is sporadic and uncoordinated.
  - Take-up of accessible design principles is still relatively limited.
- 6.28 After reviewing policies and programmes in Europe, North America, United Kingdom, Japan and Australia, we conclude that:
- Countries most successful in promoting a market response to the needs of disabled people have systematically combined regulatory, incentive and capacity building strategies using both collaborative and regulatory approaches.
  - The three most successful strategies to encourage accessible housing supply appear to be:
    - financial incentives
    - adoption of accessible or universal housing design principles in the regulatory requirements on new and renovated dwellings, and
    - provision of design advice and assistance.

## **7. THE WAY FORWARD FOR NEW ZEALAND**

- 7.1 Achieving a housing stock that is functional for people with physical disabilities and their families, and that will support the ageing population, is a major challenge for New Zealand.

### ***The Current Stock***

- 7.2 Under the current rates of prevalence, the exposure of disabled people to poorly performing and inadequately accessible homes is widespread. Almost a quarter of disabled people participating in the survey found it difficult to attain satisfactory indoor temperatures during winter. Participants in the surveys and the focus groups reported symptoms of house performance problems ranging from steamed-up windows and walls to mould and damp. Unmet needs in relation to entry and exit to their houses and in relation to internal modifications were constantly identified by survey and focus group participants. Over two-fifths of respondents to the individual survey identified

a range of features that they needed to safely enter and exit their homes and half identified unmet needs in relation to internal house modifications.

- 7.3 There is every indication that the exposure of disabled people to poorly performing and inadequately functioning and accessible homes will increase into the future if current policies and private, community and public sector practices persist.
- 7.4 The demand for accessible housing will increase in the future as:
- The prevalence of moderate to severe mobility disability trends upwards with ageing populations and higher survival rates associated with disabling conditions and injuries.
  - People without disability become increasingly aware of the risks of temporary or permanent disability.
  - Disabled people and their families, friends, employers, employees, caregivers and colleagues, as well as the taxpayer demand that disabled people are enabled to be more productive, more integrated and more active.

### ***Ability to Respond to Future Demand***

- 7.5 New Zealand is not currently well placed to meet those challenges. This is not simply because disability prevalence is almost impossible to forecast with any precision in the medium to long term. It is because:
- The existing housing stock requires basic modifications to make it accessible, functional and to provide adequate thermal performance.
  - Opportunities to ensure that the new housing stock provides basic levels of accessibility and functionality for people with moderate and severe mobility disability are not well recognised in the supply-side of the housing market.
  - Modifications of existing stock are frequently inadequate to dealing with the dynamic needs of disabled people and their families.
- Those problems are exacerbated by an on-going failure to retain modified houses in the market and matching them with those seeking housing.
- 7.6 There is considerable pressure already on public funds for house modifications that will allow disabled people and their families to optimise their social and economic independence. It is clear from this research that individuals and their families also make significant investments in housing modifications and face considerable affordability problems.
- 7.7 The inequities between those funded for modifications through ACC and those funded for modifications by way of their own contributions and/or vote: health funding are exacerbated when the mainstream housing stock does not provide a basic level of accessibility and functionality. Similarly, where the housing stock fails to meet a basic level of accessibility, the problems of affordability associated with the on-going modification of a home as needs change, become more acute. Significant investments are being made into amenities and features that could have been cost-effectively designed and in-built in a new home or when significant renovations were being undertaken in an older home.

- 7.8 The type of modifications that were identified by participants in this study as being required or undertaken are frequently at a low level of complexity and provide universal benefits. It could be argued that Health and ACC funding would be more effectively used to optimise functionality through customisation rather than having to be directed to accessibility modifications that could be integrated into the standards required of the mainstream housing stock. Under the current situation, however, this is not an option. The accessibility standards of the current and new stock are so low it is inevitable that funding of modifications, whether by Health or ACC or by way of family contribution is inevitably stretched by the need to address basic inadequacies in stock performance.

### ***Meeting Future Needs***

- 7.9 The need to establish a sustainable and accessible housing stock is not unique to New Zealand. Nor are the problems of doing so unique to New Zealand. Internationally, the development of accessible housing has been piecemeal, accessibility standards are generally low level, and not all types of disability are well catered for. In some countries private sector engagement has been slow to gain momentum, and difficulties in achieving good quality aesthetic design as well as functionality is a widespread issue. Despite regulation, incentives and capacity development, market take-up of universal design housing is generally weak, with home buyers also wary about such investment. Furthermore, modification programmes typically confront a number of difficulties in relation to needs assessment, adequacy of financial assistance for clients, poor understanding of disabled clients' needs and quality of services.
- 7.10 What is clear from emerging international practice is that a focus on the mainstream stock is required. Attempts to forecast the quantum and location of disability demand for housing have not been successful. Impairment through injury or disease or congenital condition may happen to individuals or families in a wide variety of situations, localities, neighbourhoods or dwellings. Moreover, most disabled people live in private dwellings and, as the surveys and focus groups in this study have indicated, disabled people and their families, like the rest of the population, change residences. Family, employment, education, housing quality and neighbourhood environments are all factors that influence housing decisions and residential movement.
- 7.11 Disabled people's residential movement is diverse and complex and their housing needs also change over their lifetimes. Dwellings that are not adaptable to, and funding and assessment structures that cannot accommodate, the changing and dynamic needs of disabled people and their families compromise the well-being and participation of disabled people. Under those circumstances, international practice has turned towards meeting at least some disability needs through the integration of accessible design into mainstream stock design. Universally designed stock includes many of the features that improve physical accessibility and which are now generally obtained through housing modifications.

- 7.12 This approach recognises that there are broadly two types of adaptations undertaken on dwellings to meet accessible housing needs:
- The first set of adaptations are basic accessibility and functionality modifications that could be undertaken in any existing house in the context of renovations and could be designed as standard features into all newly built houses. They include wider doorways, hall and circulation spaces, level access, lever handles, wet-shower areas, accessibly placed light switches/plugs and strengthened walls to accommodate grab rails.
  - The second set of adaptations is customised for particular individuals and can be highly specialised.
- 7.13 These are not mutually exclusive, rather a means by which dwellings can remain accessible for longer and for a wider range of people while reducing the costs of modifications.
- 7.14 Addressing unmet need through the mainstream housing market requires a strong focus on raising awareness and encouraging responses from the private sector and community housing sector. Overseas it has been found that housing providers respond to a combination of information and technical assistance, regulation and incentives. Certainly, developers and builders are most likely to respond if they find that developing and building accessible dwellings can be accommodated relatively easily within the existing labour processes and cost structures.
- 7.15 The survey of community housing providers found that there is some targeted provision of rental housing to people with disability but it is limited and a significant proportion is directed specifically to older people. The data also suggested that while those providers had a strong focus on older people, there was almost no identification of housing need among young disabled people despite the strong indication of that need evident in the individual and parent surveys and focus groups with disabled people. In addition, there was a strong sense that while accessibility was important among community housing providers, affordability was their primary preoccupation.
- 7.16 The survey of real estate agents found that agents considered that the demand for owner-occupied dwellings for people with moderate or severe mobility problems had remained static or was rising. Only one agent was of the view that demand was falling. Almost half considered that demand for accessible housing exceeds supply. There was a general perception that having modifications in a dwelling did not reduce house values, although it was commented on that the impact of modifications on house values depends on the type of modifications in the dwelling.
- 7.17 The surveys and focus groups identified a variety of changes that would make housing more accessible for disabled people and their families, including:
- Provide accessible and easy to understand information on the funding system and how to access funding for housing modifications. Provide this information in a range of languages, including Pacific languages. Suggestions were made for a 'one stop shop' for disability information.
  - Improve the knowledge and expertise of service providers (including occupational therapists, needs assessors, builders, architects), about disabled people's housing needs, and the funding system.
  - Improve timeframes for the delivery of housing modifications services.

- Establish modifications standards for residential housing and a monitoring and auditing regime. One focus group suggested that there needs to be an independent body established to provide information and support about housing modifications for disabled people and their families.
- Widespread adoption of universal design in all new residential housing.
- Establish and maintain a register of modified dwellings.
- Remove current inequities between ACC and Ministry of Health funding systems.
- Increase ESS allocation for housing modifications (currently limited to \$7,900).
- Include in assessment, consideration of the family as well cultural needs, roles and responsibilities of the disabled person.
- Improve co-ordination between agencies involved in the provision of modified housing services.
- Funding should allow for life cycle changes to accommodate changing situations of disabled people, including maturation, changes in health and disability and changes in personal and family circumstances.
- Above all, treat disabled people and their families with respect.

7.18 Many of the issues and experiences raised in the surveys and focus groups about problems in obtaining modifications are evident in the Environmental Support Services (ESS) review (Disability Resource Centre, 2005). That review found that:

- Those seeking funding were confused about the funding policy, including circumstances under which people can get more than one modification. The review found considerable variation in experience across the country, with some indicating they had no problem getting a second or third housing modification. Clearly there is regional inconsistency in the interpretation and implementation of ESS operational policy.
- An increasing number of disabled people being expected to meet more of the costs of adaptations themselves, as building costs have increased and compliance with new building regulations have raised costs. Despite those increases, the income and asset testing threshold level of \$7,900 has not changed in over 10 years. Feedback from some assessors was that clients used to be able to obtain modifications such as a wet area shower, a ramp and maybe some kitchen modifications before reaching the threshold, whereas currently they may be only able to get a wet area shower before reaching the threshold.
- A lack of information about the ESS system, including how to access ESS, eligibility and prioritisation criteria, and funding processes.
- Long waiting times for approval of housing modifications. The review concluded that the current ESS system is not able to respond to urgent applications for housing modifications to enable early discharge in the timeframes desired by District Health Boards.
- Problems with sector capability including questionable practices by some contractors, and the lack of competency-based standards to measure and accredit assessors against. As a consequence, there are considered to be varying levels of competency in ESS assessment nationwide. The review highlighted the absence of a training framework aligned to demonstrated competency in order to attain accreditation.
- Lack of on-going audit processes.
- Current funding policies disadvantage disabled young people in particular who may wish to move out of the family home for further education, work and to experience the normal transition to adulthood and independence.

- 7.19 When looking to the future for accessible housing, several key points emerge from the international review of accessible housing policies and programmes and the research into New Zealand:
- Focusing only on an individual's need for an accessible dwelling does not meet the needs of disabled people for accessible communities, social and work environments.
  - Accessible design does stabilise people and assist them to stay in their homes and communities.
  - Housing modification schemes are unlikely, in current form, to be a sufficient response to meet growing need.
  - Universal design features do not meet all the housing needs that arise for people with moderate or severe individual disabilities. The need for customised modification will remain.
  - The influence of the accessible housing movement is increasing as policy discourses between ageing-in-place and disability converge and the political influence of older disabled people grows.
  - The current generation of younger disabled, and the next generation of older disabled people are more open to use of assistive technologies.
  - Accessibility and assistive technologies can be integrated into the design and build of new homes and into renovations in the mainstream housing stock.
  - Mainstreaming new accessible housing design through regulation will have a limited effect in the short to medium term. Most disabled people will live in existing stock.
  - Consumer resistance to universal design homes is definite but on evidence, can be overcome with attention to good aesthetic design.
  - The realignment of the stock will require increased capacity and expertise and will take time.
  - The efficient use of existing accessible housing stock needs to be optimised.
- 7.20 Taking into consideration the information from international experience, and the research with disabled people, their families and housing providers, the immediate priorities identified in this project are:
- Improving the accessibility and comfort of housing stock through the introduction of universal design.
  - Improving the policy, funding and practice around providing customised accessibility features to meet individual needs.
  - Capacity building.
  - More efficient use of modified housing stock.
- 7.21 Improving the accessibility and comfort of housing stock through introduction of universal design to both new and existing housing stock is crucial because a focus on modifications alone will not meet the growing need for accessible housing. Furthermore, including accessible features in dwellings is a means of future-proofing that dwelling for both the disabled population and for ageing in place. The review of international policies and programmes showed that the most effective way of encouraging the market response for new mainstream accessible housing stock is a combination of regulatory, incentive and collaborative capacity building strategies. Bringing existing dwellings up to an accessible standard is more difficult to accomplish, but could be addressed through the inclusion of requirements for accessible features in programmes such as the maintenance of public stock, energy retrofits and

retrofitting houses requiring modifications to bring them up to universal standard.

- 7.22 Currently most disabled people live in existing housing stock. Installing customised features to meet individual needs is essential as universal design features do not meet all the housing needs that arise for people with moderate or severe mobility disabilities. Currently it appears that the funding and processes for obtaining modifications require considerable improvement. Participants in surveys and focus groups identified significant barriers in accessing modifications.
- 7.23 Increasing capacity and expertise is required for increasing the stock of mainstream accessible housing, as well as for modifications processes. For accessible mainstream housing, there needs to development of cost-effective standard solutions for accessible design features, development of training mechanisms for the design and building sector, quality assurance and greater understanding of the potential market. For modifications, capacity development is required for all stages, from the needs assessment, design and planning stages, through to construction, installation and finishing of modifications. Improvements also need to be made in providing information and assistance to people accessing funding for modifications, and in co-ordination between agencies and contractors.
- 7.24 The use of registers of accessible dwellings is one method of improving the efficient use of stock, expanding the information base about accessible housing and matching stock with consumers. There are numerous examples of registers used in other countries, at national, regional and local levels. The development of a register of accessible homes seems a very practical way ahead for a society as small as New Zealand.
- 7.25 The extent to which impairment is disabling to an individual will in part depend on the social and physical environment in which that individual is situated. Everyone lives in a dwelling, and dwellings and the performance of dwellings are a crucial part of any individual's well-being. Dwellings last a long time and some dwellings are more adaptable to change than others and will be able to accommodate the changes that individuals need from them. Under those conditions, and given the findings that have emerged from this research, there is good argument to focus on the supply side of the housing stock and the way in which the mainstream stock can be developed, either through retrofit of existing stock, or improved design of new stock, that will make it more cost-effectively adaptable for the dynamic needs of disabled people and their families.
- 7.26 There are three areas of information deficit that would facilitate that focus and need to be subject to robust research. The first is research into the relative costs and benefits of adaptable housing compared to providing higher levels of home-based support services or higher levels of care. The second is research into the relative costs of accessible housing design compared to subsequent modifications to meet accessibility needs and dwelling functionality for mobility impaired people. The third area of research is into the means by which the costs of modification in the housing stock might be reduced and the quality of modifications increased.

## ***Accessibility, Performance and Sustainability***

7.27 The issues faced by disabled people are, in essence, an intensified version of the broader issues that all New Zealanders have with our current and future housing stock. Ensuring the accessibility of the stock, improving the energy efficiency of the stock, and improving its comfort and safety are all critical elements of making New Zealand's stock sustainable. An accessible, well performing stock has benefits not only to disabled people whose mobility may become compromised as they age. It is not simply an issue for the disability sector or even the housing sector. The issue needs to be considered in the context of making our built environment resource efficient and sustainably supporting liveable homes and communities.

## ***Summary and Key Issues***

7.28 Disabled people's housing needs are not being met by New Zealand's current housing stock. Disabled people and the Government (through health vote and through ACC funding) all make considerable investments into housing modifications. Many of those modifications would be more functionally effective and more cost effective if integrated into the design of newly built or renovated houses. Additional modifications for highly specialised and specific needs would, under those circumstances, be more affordable and better targeted.

7.29 New Zealand is not well placed to meet rising demand for accessible housing.

- There is low recognition in the supply-side of the housing sector of the positive market opportunities for housing that will be accessible and functional for people throughout their lives.
- There are also no systematic mechanisms by which modified houses can be retained in the market and made available to disabled people seeking modified housing.
- Community housing providers have some recognition of disability but primarily associate this with older people. Community housing providers focus almost entirely on addressing affordability problems and generally do not give prominence to access issues.

7.30 The immediate priorities are:

- Improving the accessibility and comfort of housing stock through the introduction of universal design.
- Improving the policy, funding and practice around providing customised accessibility features to meet individual needs.
- Capacity building.
- More efficient use of modified housing stock.



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**ANNEX A**  
**INDIVIDUAL SURVEY**

## ACCESSIBLE HOUSING FOR OUR FUTURE

The Centre for Research, Evaluation and Social Assessment (CRESA) and the Disability Resource Centre (DRC) Auckland are conducting research into accessible housing for the future aging and disabled population in New Zealand. The Centre for Housing Research, Aotearoa New Zealand (CHRANZ) has commissioned the research.

The aim of this research is to assist the housing and disability sectors to ensure the best possible housing access, over the next twenty five years, for people living with disability.

**We greatly appreciate your help with this research, as it is important we include people with different experiences. Your answers will be treated with complete confidentiality. All information collected in this survey will be aggregated, and no names or personal details will be identified in reports.**

We would appreciate you spending a few minutes filling in the attached questionnaire. If you have any enquires about this research, or would like some help in filling out the questionnaire, please contact:

Kay Saville-Smith, CRESA free-call number 0508 427 372  
Bernadette Ryan, DRC Auckland 09 625 0314  
Bev James, CRESA free-call number 0508 427 372

As a token of appreciation, all completed questionnaires that are returned to us will have the opportunity to be selected for a voucher to the value of \$20. Eight vouchers will be available.

Tick one of the following boxes to tell us which type of voucher you would prefer to receive, if selected:

\$20 book voucher    \$20 petrol voucher    \$20 garden voucher.

You will be eligible to be selected if you return your completed questionnaire in the envelope provided, **by 9 October 2006**.

If you want further information about this research go to:

- [www.chranz.co.nz](http://www.chranz.co.nz)



14 Erson Avenue  
Royal Oak  
AUCKLAND  
Phone (09) 625-8069  
Or 0800-693 342



Level 6 CSI House  
166 - 168 Featherston Street  
WELLINGTON  
Phone (04) 4733071



1. On week days, typically how many hours are you in your house each day?

Number of hours \_\_\_\_\_

2. On weekends, typically how many hours are you in your house each day?

Number of hours \_\_\_\_\_

<b>Current House Condition &amp; Performance</b>
--

3. How long have you lived in your current home?

\_\_\_\_\_ years \_\_\_\_\_ months

4. Do you expect to move from your home within the next few years?

<sub>1</sub> Yes → go to Question 5

<sub>2</sub> No → go to Question 6

5. If yes, why do you expect to move? Please tick (✓) one box only

<sub>1</sub> Want larger property

<sub>2</sub> Moving because of work

<sub>3</sub> Want a different type of property

<sub>4</sub> Want to move to a better area/away from vandalism

<sub>5</sub> Want a smaller property

<sub>6</sub> To buy own house/flat

<sub>7</sub> Ill health/old age (poor health)

<sub>8</sub> Want a different area

<sub>9</sub> Dislike neighbours/unfriendly people

<sub>10</sub> Change in family size

<sub>11</sub> Want a better house (e.g. central heating/bath)

<sub>12</sub> Want a garden

<sub>13</sub> To be nearer friends/family

<sub>14</sub> This accommodation is temporary

<sub>15</sub> House/flat in poor repair

<sub>16</sub> Can't afford to stay

<sub>17</sub> Other (please specify) \_\_\_\_\_

6. What sort of dwelling do you live in? Please tick (✓) one box only

<sub>1</sub> A detached single-storey house

<sub>2</sub> A detached house with more than one storey

<sub>3</sub> A semi-detached single-storey house

<sub>4</sub> A semi-detached house with more than one storey

<sub>5</sub> A terrace house

<sub>6</sub> A purpose built flat

<sub>7</sub> A flat in a converted building

<sub>8</sub> An apartment in an apartment block with more than two floors

<sub>9</sub> Other (please specify) \_\_\_\_\_

**7. What is the main fuel you use to heat your home? Please tick (✓) one box only**

- <sub>1</sub> Gas
- <sub>2</sub> Electricity
- <sub>3</sub> LPG
- <sub>4</sub> Oil
- <sub>5</sub> Wood
- <sub>6</sub> Coal
- <sub>7</sub> None – do not heat my home
- <sub>8</sub> Other (please specify) \_\_\_\_\_

**8. Which heating appliances do you frequently use? Please tick (✓) any in frequent use**

- <sub>1</sub> Central heating
- <sub>2</sub> Electric storage heaters
- <sub>3</sub> Heat pump
- <sub>4</sub> Under floor heating - electric
- <sub>5</sub> Portable gas heater
- <sub>6</sub> Fixed gas heater – with flue
- <sub>7</sub> Fixed gas heater – no flue
- <sub>8</sub> Solid fuel open fire
- <sub>9</sub> Solid fuel enclosed burner
- <sub>10</sub> Fixed electric heaters/fires
- <sub>11</sub> Portable electric heaters/fires
- <sub>12</sub> None
- <sub>13</sub> Other (please specify) \_\_\_\_\_

**9. During the winter months, do you generally find that your heating keeps you warm enough at home? Please tick (✓) one box only**

- <sub>1</sub> Yes, always
- <sub>2</sub> Yes, most of the time
- <sub>3</sub> Only some of the time
- <sub>4</sub> No, never
- <sub>5</sub> Don't know

**10. How satisfied are you with each of the following aspects of your heating system in winter? Please tick (✓) one box only for each aspect**

	Very satisfied	Satisfied	Neither satisfied nor dissatisfied	Dissatisfied	Very Dissatisfied
The type of heating	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
The cost of running your system	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
The amount of heat you can get	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
The control over the level of heat	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
How quickly you can heat your home	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
The heating throughout all areas of your home	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
The ease of use of the system	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>

**11. Do you own the house that you live in? Please tick (✓) one box only**

- <sub>1</sub> Yes → paying mortgage - go to Question 15
- <sub>2</sub> Yes → without mortgage - go to Question 15
- <sub>3</sub> No → renting – go to Question 12

**12. Who is your landlord? Please tick (✓) one box only**

- <sub>1</sub> Private person(s)/private trust
- <sub>2</sub> Business or other organisation
- <sub>3</sub> Local authority or city council
- <sub>4</sub> Housing New Zealand Corporation (HNZC)
- <sub>5</sub> Other State Landlord (State-owned corporation or State-owned Enterprise)
- <sub>6</sub> Employer of someone in the household
- <sub>7</sub> Other business or organisation (please specify) \_\_\_\_\_

**13. How much rent do you pay to the owner (or their agent) for this dwelling?**

\$ \_\_\_\_\_ or  No rent paid

*If rent paid, indicate period: Please tick (✓) one box only*

- <sub>1</sub> Weekly
- <sub>2</sub> Fortnightly/ Two weekly
- <sub>3</sub> Four weekly
- <sub>4</sub> Monthly
- <sub>5</sub> Other (please specify) \_\_\_\_\_

**14. Would you prefer to live in a house you owned? Please tick (✓) one box only**

- <sub>1</sub> Yes
- <sub>2</sub> No

**15. How would you describe the condition of your current house? Please tick (✓) one box only**

- <sub>1</sub> Excellent - No immediate repair and maintenance needed
- <sub>2</sub> Good - Minor maintenance needed
- <sub>3</sub> Average - Some repair & maintenance needed
- <sub>4</sub> Poor - Immediate repairs and maintenance needed
- <sub>5</sub> Very poor - Extensive and immediate repairs and maintenance needed

**16. Do you get damp/condensation in any rooms? Please tick (✓) one box only**

- <sub>1</sub> Yes → go to Question 17
- <sub>2</sub> No → go to Question 18

**17. In which of the following rooms do you have problems associated with damp/condensation? Please tick (✓) all boxes that apply**

	Steamed up windows	Steamed/wet walls	Damage to paint	Carpet mould	Wall mould	Staining
a. Main bedroom	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>
b. 2 <sup>nd</sup> bedroom	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>
c. 3 <sup>rd</sup> bedroom	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>
d. 4 <sup>th</sup> bedroom	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>
e. 5 <sup>th</sup> bedroom	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>
f. Kitchen	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>
g. Sitting room/lounge	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>
h. Dining room	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>
i. Condition of other homes & gardens within the neighbourhood	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>
j. Bathroom	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>
k. Laundry	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>
l. Other room (please specify)	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>

**18. Do you use any special features to enter or leave your present home?**

Please tick (✓) one box only

- <sub>1</sub> Yes → go to Question 19  
<sub>2</sub> No → go to Question 20

**19. Do you now use: Please tick (✓) all boxes that apply**

- <sub>1</sub> Easy-to-get-at driveways, ramps or street level entrances  
<sub>2</sub> Easy-to-get-at passenger drop off or pick-up areas  
<sub>3</sub> Elevator or lift devices  
<sub>4</sub> Widened doorways  
<sub>5</sub> Automatic or easy-to-open doors  
<sub>6</sub> Hand rails at steps or doorway  
<sub>7</sub> Lever door handles  
<sub>8</sub> Garage or carport which meets disabled person's needs  
<sub>9</sub> Any other special features (please specify) \_\_\_\_\_

**20. To enter or leave your present home, do you need any special features which you do not already have? Please tick (✓) one box only**

- <sub>1</sub> Yes → go to Question 21  
<sub>2</sub> No → go to Question 23

**21. Which special features do you need but do not have? Please tick (✓) all boxes that apply**

- <sub>1</sub> Easy-to-get-at driveways, ramps or street level entrances
- <sub>2</sub> Easy-to-get-at passenger drop off or pick-up areas
- <sub>3</sub> Elevator or lift devices
- <sub>4</sub> Widened doorways
- <sub>5</sub> Automatic or easy-to-open doors
- <sub>6</sub> Hand rails at steps or doorway
- <sub>7</sub> Lever door handles
- <sub>8</sub> Garage or carport which meets disabled person's needs
- <sub>9</sub> Any other special features (please specify) \_\_\_\_\_

**22. Why don't you have this/these feature(s): Please tick (✓) all boxes that apply**

- <sub>1</sub> Did not know the feature existed
- <sub>2</sub> Did not know where to get it
- <sub>3</sub> Feature is only needed occasionally
- <sub>4</sub> Condition is not serious enough
- <sub>5</sub> Too costly or cannot afford it
- <sub>6</sub> Applied for financial help but were not eligible
- <sub>7</sub> Did not know I could apply for financial help or where to get it
- <sub>8</sub> The landlord is not willing
- <sub>9</sub> Other reason (please specify) \_\_\_\_\_

**23. Because of your condition or health problem, does your home have any special features inside? Only count things attached to your house. Don't count portable household equipment or appliances such as chairs or shower stools. Please tick (✓) one box only**

- <sub>1</sub> Yes → go to Question 24
- <sub>2</sub> No → go to Question 25

**24. Do you now use: Please tick (✓) all boxes that apply**

- <sub>1</sub> Grab or hand rails
- <sub>2</sub> Elevator or lift device
- <sub>3</sub> Widened doorways or hallways
- <sub>4</sub> Visual or flashing alarms
- <sub>5</sub> Audio warning device
- <sub>6</sub> Automatic or easy-to-open doors or windows
- <sub>7</sub> Lowered benches or sinks
- <sub>8</sub> Lowered switches or power points
- <sub>9</sub> Bed or bath lifts
- <sub>10</sub> Wet area shower
- <sub>11</sub> Easy-to-get at toilet
- <sub>12</sub> Lever door handles
- <sub>13</sub> Emergency call system
- <sub>14</sub> Any other special feature(please specify) \_\_\_\_\_

**25. Inside your home, do you need any special features which you do not already have? Only count things attached to your house. Don't count portable household equipment or appliances such as chairs or shower stools. Please tick (✓) one box only**

- <sub>1</sub> Yes → go to Question 26  
<sub>2</sub> No → go to Question 28

**26. Which special features do you need but do not have? Please tick (✓) all boxes that apply**

- <sub>1</sub> Grab or hand rails  
<sub>2</sub> Elevator or lift device  
<sub>3</sub> Widened doorways or hallways  
<sub>4</sub> Visual or flashing alarms  
<sub>5</sub> Audio warning device  
<sub>6</sub> Automatic or easy-to-open doors or windows  
<sub>7</sub> Lowered benches or sinks  
<sub>8</sub> Lowered switches or power points  
<sub>9</sub> Bed or bath lifts  
<sub>10</sub> Wet area shower  
<sub>11</sub> Easy-to-get at toilet  
<sub>12</sub> Lever door handles  
<sub>13</sub> Emergency call system  
<sub>14</sub> Any other special feature(please specify) \_\_\_\_\_

**27. Why don't you have this/these feature(s):? Please tick (✓) all boxes that apply**

- <sub>1</sub> Did not know the feature existed  
<sub>2</sub> Did not know where to get it  
<sub>3</sub> Feature is only needed occasionally  
<sub>4</sub> Condition is not serious enough  
<sub>5</sub> Too costly or cannot afford it  
<sub>6</sub> Applied for financial help but were not eligible  
<sub>7</sub> Did not know I could apply for financial help or where to get it  
<sub>8</sub> The landlord is not willing  
<sub>9</sub> Other reason (please specify) \_\_\_\_\_

<b>House Alterations/Adaptations</b>
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**28. If you have listed a number of house alterations and adaptations, which of those were made specifically for you? If none → go to Question 40**

<sub>1</sub> All of them OR note details for each relevant type below

	<b>Alteration specifically for me</b>
Grab or hand rails	<input type="checkbox"/>
Elevator or lift device	<input type="checkbox"/>
Widened doorways or hallways	<input type="checkbox"/>
Visual or flashing alarms	<input type="checkbox"/>
Audio warning device	<input type="checkbox"/>
Automatic or easy-to-open doors or windows	<input type="checkbox"/>
Lowered benches or sinks	<input type="checkbox"/>
Lowered switches or power points	<input type="checkbox"/>
Bed or bath lifts	<input type="checkbox"/>
Wet area shower	<input type="checkbox"/>
Easy-to-get at toilet	<input type="checkbox"/>
Lever door handles	<input type="checkbox"/>
Emergency call system	<input type="checkbox"/>
Easy-to-get-at driveways, ramps or street level entrances	<input type="checkbox"/>
Easy-to-get-at passenger drop off or pick-up areas	<input type="checkbox"/>
Any other special feature (please specify)	<input type="checkbox"/>

**29. Whose idea was it to make alterations? Please tick (✓) all boxes that apply**

- <sub>1</sub> My/our own
- <sub>2</sub> My doctors
- <sub>3</sub> Son or daughter(s)
- <sub>4</sub> Occupational therapist
- <sub>5</sub> ACC case manager
- <sub>6</sub> Needs Assessor (DHB)
- <sub>7</sub> Other (please specify) \_\_\_\_\_

**30. How were you involved in deciding what needed to be altered and what work would be done? Please tick (✓) one box only**

- <sub>1</sub> Not involved
- <sub>2</sub> Partially involved
- <sub>3</sub> Fully involved

**31. How much do you estimate that the alterations cost in total?**

\$ \_\_\_\_\_

**32. Did you get any financial assistance from an agency or other person to undertake the alterations? Please tick (✓) one box only**

- <sub>1</sub> Yes → go to Question 33  
<sub>2</sub> No → go to Question 35

**33. How much was the financial assistance you received?**

\$ \_\_\_\_\_

**34. What was the source of the financial assistance? Please tick (✓) all boxes that apply**

- <sub>1</sub> Family trust/family members  
<sub>2</sub> ACC  
<sub>3</sub> DHB  
<sub>4</sub> Ministry of Social Development (MSD/WINZ)  
<sub>5</sub> HNZC  
<sub>6</sub> Other (please specify) \_\_\_\_\_  
<sub>7</sub> Do not know

**35. How much have you personally paid for alterations?**

\$ \_\_\_\_\_ OR <sub>1</sub> Nothing → if nothing - go to Question 37

**36. If you personally paid some or all of the cost of the alterations, did you pay for alterations out of: Please tick (✓) all boxes that apply**

- <sub>1</sub> Savings  
<sub>2</sub> Compensation lump sum (ACC)  
<sub>3</sub> Private insurance payment  
<sub>4</sub> Out of income  
<sub>5</sub> Took out a loan/extended my/our mortgage  
<sub>6</sub> Other (please specify) \_\_\_\_\_



**37. Have the alterations been helpful to you in the following areas? Please tick (✓) one box only for each area**

	Yes, alterations helped significantly	Yes, alterations helped marginally	No, alterations did not help	N/A – no help needed in this area
Running your house generally	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
Getting to work	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
Continuing with your interests	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
Being able to go out	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
Preparing meals	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
Taking a bath or shower	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
Using the toilet	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
Feeling safer (reduced risk of accident)	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
Moving around the house	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
Caring for someone else	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
Having a social life	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
Needing less help from others	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>

**38. Are you happy with the way the alterations look? Please tick (✓) one box only**

- <sub>1</sub> Yes  
<sub>2</sub> No

**39. Have the alterations caused you or anyone else in your house any problems? Please tick (✓) one box only**

- <sub>1</sub> Yes → Please detail below  
<sub>2</sub> No

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<b>Neighbourhood</b>
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**40. Can you easily get to and use the following services?: Please tick (✓) one box only for each service**

	Yes	No
Buses or trains	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>
Health centre or doctor	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>
Pharmacy	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>
Dairy, grocery or supermarket	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>
Bank and/or money machine	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>
Post office	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>
Public park or other open space	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>
Other recreation or sports facility, for example a swimming pool	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>
Church, marae, community centre or meeting place	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>

**41. Since moving to this neighbourhood, have you belonged to, taken part in, or supported or helped in any way local community or neighbourhood groups? Please tick (✓) one box only**

- <sub>1</sub> Yes → go to Question 42  
<sub>2</sub> No → go to Question 43

**42. How often over the last 12 months have you done something to help this (these) groups(s)? Please tick (✓) one box only**

- <sub>1</sub> More than once a week  
<sub>2</sub> About once a week  
<sub>3</sub> About once a month  
<sub>4</sub> Other

**43. Thinking about where you live, would you say that you: Please tick (✓) one box only**

- <sub>1</sub> Know many of the people in your neighbourhood and area nearby  
<sub>2</sub> Know some of the people in your neighbourhood and area nearby  
<sub>3</sub> Know a few of the people in your neighbourhood and area nearby  
<sub>4</sub> Do not know people in your neighbourhood and area nearby  
<sub>5</sub> Would like to know people in your neighbourhood and area nearby

**44. How safe do you feel mobilising or walking alone in your neighbourhood after dark? Please tick (✓) one box only**

- <sub>1</sub> Very safe  
<sub>2</sub> Fairly safe  
<sub>3</sub> A bit unsafe  
<sub>4</sub> Very unsafe

**45. How would you describe how you get on with your IMMEDIATE neighbours? Please tick (✓) one box only**

- <sub>1</sub> Very well
- <sub>2</sub> Fairly well
- <sub>3</sub> Tend not to get on well
- <sub>4</sub> Do not get on at all
- <sub>5</sub> Do not really know neighbours
- <sub>6</sub> Don't know

**46. How strongly do you agree or disagree with each of the following statements? Please tick (✓) one box only for each statement**

	Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree
a. If I needed a favour, I could rely on someone in this neighbourhood to help me	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
b. This is a place where neighbours look out for each other	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
c. I feel that I am unable to influence decisions in the neighbourhood	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
d. I am proud of my neighbourhood	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
e. Compared with other neighbourhoods, this one has many advantages	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
f. This is a friendly neighbourhood	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
g. I feel that I belong to this neighbourhood	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
h. My local neighbourhood reflects the type of person I am	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
i. People from different backgrounds get on well together in this neighbourhood	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>

**47. How would you rate the following aspects of YOUR NEIGHBOURHOOD? Please tick (✓) one box only for each aspect**

	Very good	Fairly good	Neither good nor bad	Fairly bad	Very bad	Don't know
a. Your neighbourhood as a place to live	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>
b. General appearance of area (i.e. attractiveness)	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>
c. Street lighting	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>
d. Open spaces and parks	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>
e. Provision of shops	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>
f. Provision of recreational facilities	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>
g. Condition of other homes & gardens within the neighbourhood	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>

<b>Household Composition &amp; Demographics</b>
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**48. What is the name of the place where you live?**

Please write the location \_\_\_\_\_

**49. Which age group are you in? Please tick (✓) one box only**

- <sub>1</sub> Under 20 years
- <sub>2</sub> 20 - 29 years
- <sub>3</sub> 30 - 39 years
- <sub>4</sub> 40 - 49 years
- <sub>5</sub> 50 - 64 years
- <sub>6</sub> 65 years or more

**50. How many people are there in your household (counting yourself)?**

Please state the number \_\_\_\_\_

**51. From the list below, please tick the box which best describes your household. Please tick (✓) one box only**

- <sub>1</sub> Non-retired couple with no dependant children
- <sub>2</sub> Retired couple with no dependant children
- <sub>3</sub> Couple with dependant children
- <sub>4</sub> Lone parent with dependant children
- <sub>5</sub> Other multi-person household
- <sub>6</sub> One non-retired person
- <sub>7</sub> One retired person
- <sub>8</sub> Other (please describe) \_\_\_\_\_

**52. Please indicate on the list below your personal income before tax annually?**

Please tick (✓) one box only

- <sub>1</sub> loss
- <sub>2</sub> zero income
- <sub>3</sub> \$1 - \$5000
- <sub>4</sub> \$5001 - \$10,000
- <sub>5</sub> \$10,001 - \$15,000
- <sub>6</sub> \$15,001 - \$20,000
- <sub>7</sub> \$20,001 - \$25,000
- <sub>8</sub> \$25,001 - \$30,000
- <sub>9</sub> \$30,001 - \$40,000
- <sub>10</sub> \$40,001 - \$50,000
- <sub>11</sub> \$ 50,001 - \$70,000
- <sub>12</sub> \$ 70,001 - \$100,000
- <sub>13</sub> \$ 100,001 or more

**53. Which of the following best describes your situation? Please tick (✓) one box only**

- <sub>1</sub> Employer
- <sub>2</sub> Employed full-time
- <sub>3</sub> Employed part-time
- <sub>4</sub> Self-employed/freelance
- <sub>5</sub> Unemployed/seeking work
- <sub>6</sub> Retired
- <sub>7</sub> Looking after family/home
- <sub>8</sub> Full-time student at college/university
- <sub>9</sub> Not employed because of long term illness or disability
- <sub>10</sub> Other (please specify) \_\_\_\_\_

**54. Age of youngest household member? Please tick (✓) one box only**

- <sub>1</sub> 0 - 4 years
- <sub>2</sub> 5 - 9 years
- <sub>3</sub> 10 -14 years
- <sub>4</sub> 15 - 19 years
- <sub>5</sub> 20 - 29 years
- <sub>6</sub> 30 - 39 years
- <sub>7</sub> 40 - 49 years
- <sub>8</sub> 50 – 64 years
- <sub>9</sub> 65 years or more

**55. Age of eldest household member? Please tick (✓) one box only**

- <sub>1</sub> Under 20 years
- <sub>2</sub> 20 - 29 years
- <sub>3</sub> 30 - 39 years
- <sub>4</sub> 40 - 49 years
- <sub>5</sub> 50 – 64 years
- <sub>6</sub> 65 years or more

**56. Which ethnic group do you belong to? Please tick (✓) all that apply**

- <sub>1</sub> New Zealand European
- <sub>2</sub> Maori
- <sub>3</sub> Samoan
- <sub>4</sub> Cook Island Maori
- <sub>5</sub> Tongan
- <sub>6</sub> Niuean
- <sub>7</sub> Chinese
- <sub>8</sub> Indian
- <sub>9</sub> Other (please specify) \_\_\_\_\_

**57. Are you? Please tick (✓) one box only**

- <sub>1</sub> Male
- <sub>2</sub> Female

**Disability**

**58. Do you have difficulties (which have lasted six months or more) with any of the following activities? Please tick (✓) one box only for each activity**

	With difficulty	No difficulty	N/A do not do activity
a. Walking the distance around a rugby field without resting (approx 300metres or 400 yards)	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
b. Walking up and down a flight of stairs (that is about 12 steps)	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
c. Carrying something as heavy as a 5 kilo bag of potatoes while walking 10 metres or 30 feet	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
d. Moving from one room to another	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
e. Standing for 20 minutes at a time	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
f. Moving around your house without assistance or modification to the house	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
g. Moving around your neighbourhood without assistance	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
h. Moving around your town/city without assistances	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>

*If no difficulty with any of the activities in Question 58 → go to Question 64, otherwise → go to Question 59.*

**59. At what age did you first have difficulty doing these activities?**

Age: \_\_\_\_\_ OR <sub>1</sub> Always had difficulties

**60. What is the main condition or health problem which causes this difficulty?**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**61. Which of the following BEST describes the cause of this condition or health problem? Please tick (✓) one box only**

- <sub>1</sub> A disease or illness
- <sub>2</sub> An accident or injury (includes burns, near drowning, poisoning)
- <sub>3</sub> It existed at birth (or occurred during birth)
- <sub>4</sub> Natural ageing
- <sub>5</sub> Other (please specify) \_\_\_\_\_
- <sub>6</sub> Don't know

**62. If condition/health problem caused by an accident, was that: Please tick (✓) one box only**

- <sub>1</sub> An accident or injury at home
  - <sub>2</sub> A motor vehicle accident
  - <sub>3</sub> An accident or injury at work
  - <sub>4</sub> A sports accident or injury
  - <sub>5</sub> Another type of accident or injury (please specify) \_\_\_\_\_
- 

**63. What would you estimate your levels of support needs are? Please tick (✓) one box only**

- <sub>1</sub> Low support needs
- <sub>2</sub> Medium support needs
- <sub>3</sub> High support needs

<b>Housing History</b>
------------------------

**64. When you first found yourself disabled what was your living situation? Please tick (✓) one box only**

- <sub>1</sub> Lived at home with parents
- <sub>2</sub> Lived in rented house with partner only
- <sub>3</sub> Lived in rented house with partner and child(ren)
- <sub>4</sub> Lived in rented house with partner and others
- <sub>5</sub> Lived in rented house with others
- <sub>6</sub> Lived in rented house on my own
- <sub>7</sub> Boarded
- <sub>8</sub> Lived in a house I/we owned with my partner only
- <sub>9</sub> Lived in a house I/we owned with my partner and child(ren)
- <sub>10</sub> Lived in a house I/we owned with my partner and others
- <sub>11</sub> Lived in a house I/we owned with others
- <sub>12</sub> Lived alone in a house I owned
- <sub>13</sub> Other (please specify) \_\_\_\_\_

**65. Did your disability mean that you had to move or modify the house at that time? Please tick (✓) one box only**

- <sub>1</sub> Yes → go to Question 66
- <sub>2</sub> No → go to Question 67

**66. If yes, did you: Please tick (✓) one box only**

- <sub>1</sub> Modify our existing house
- <sub>2</sub> Move to modified rental accommodation
- <sub>3</sub> Move to a modified home we purchased
- <sub>4</sub> Other (please specify) \_\_\_\_\_

**67. How many times have you moved since the first house alterations/adaptations? If no moves, go to → Question 70**

Number of moves \_\_\_\_\_

**68. How many house modifications/alterations/adaptations have you had?**

Number of different sets of alterations successively at the same house or at a succession of houses \_\_\_\_\_

**69. Who funded the different sets of modifications to houses? Please tick (✓) all that apply**

- <sub>1</sub> Self/partner
- <sub>2</sub> Family trust/extended family members
- <sub>3</sub> ACC
- <sub>4</sub> DHB
- <sub>5</sub> Other (please specify) \_\_\_\_\_

**70. Do you feel that you have been unable to pursue opportunities elsewhere such as employment or education because of a lack of appropriate housing in other areas? Please tick (✓) one box only**

- <sub>1</sub> Yes
- <sub>2</sub> No

**71. If yes, What sort of opportunities do you think you've missed out on: Please tick (✓) all that apply**

- <sub>1</sub> To be with family
- <sub>2</sub> Lifestyle choices
- <sub>3</sub> Employment
- <sub>4</sub> Training/education
- <sub>5</sub> Start new household/relationship
- <sub>6</sub> Other (please specify) \_\_\_\_\_

**72. If you have any further comments about your past or future housing situations, please feel free to comment below.**

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**ANNEX B  
PARENTS SURVEY**

## ACCESSIBLE HOUSING FOR OUR FUTURE

The Centre for Research, Evaluation and Social Assessment (CRESA) and the Disability Resource Centre (DRC) Auckland are conducting research into accessible housing for the future aging and disabled population in New Zealand. The Centre for Housing Research, Aotearoa New Zealand (CHRANZ) has commissioned the research.

The aim of this research is to assist the housing and disability sectors to ensure the best possible housing access, over the next twenty five years, for people living with disability.

**We greatly appreciate your help with this research, as it is important we include people with different experiences. Your answers will be treated with complete confidentiality. All information collected in this survey will be aggregated, and no names or personal details will be identified in reports.**

We would appreciate you spending a few minutes filling in the attached questionnaire. If you have any enquires about this research, or would like some help in filling out the questionnaire, please contact:

Kay Saville-Smith, CRESA free-call number 0508 427 372  
Bernadette Ryan, DRC Auckland 09 625 0314  
Bev James, CRESA free-call number 0508 427 372

As a token of appreciation, all completed questionnaires that are returned to us will have the opportunity to be selected for a voucher to the value of \$20. Eight vouchers will be available.

Tick one of the following boxes to tell us which type of voucher you would prefer to receive, if selected:

\$20 book voucher    \$20 petrol voucher    \$20 garden voucher.

You will be eligible to be selected if you return your completed questionnaire in the envelope provided, **by 6 November 2006**.

If you want further information about this research go to:

- [www.chranz.co.nz](http://www.chranz.co.nz)



14 Erson Avenue  
Royal Oak  
AUCKLAND  
Phone (09) 625-8069  
Or 0800-693 342



Level 6 CSI House  
166 - 168 Featherston Street  
WELLINGTON  
Phone (04) 4733071

**1. How many disabled children do you have living with you?**

- <sub>1</sub> One  
<sub>2</sub> More than one

***If more than one disabled child is living with you, please answer all following questions in relation to the oldest child.***

**2. Which age group is your disabled child in? Please tick (✓) one box only**

- <sub>1</sub> Under 5 years  
<sub>2</sub> 5 - 9 years  
<sub>3</sub> 10 - 14 years  
<sub>4</sub> 15 - 19 years  
<sub>5</sub> 20 - 29 years  
<sub>6</sub> 30 - 39 years  
<sub>7</sub> 40 - 49 years  
<sub>8</sub> 50 – 64 years  
<sub>9</sub> 65 years or more

**3. On week days, typically how many hours does your disabled child spend in your house each day?**

Number of hours \_\_\_\_\_

**4. On weekends, typically how many hours does your disabled child spend in your house each day?**

Number of hours \_\_\_\_\_

<b>Current House Condition &amp; Performance</b>
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**5. How long have you lived in your current home?**

\_\_\_\_\_ years \_\_\_\_\_ months

**6. How long has your disabled child lived in your current home?**

\_\_\_\_\_ years \_\_\_\_\_ months

**7. Do you expect to move from your home within the next few years?**

- <sub>1</sub> Yes → go to Question 8  
<sub>2</sub> No → go to Question 9

**8. If yes, why do you expect to move? Please tick (✓) one box only**

- <sub>1</sub> Want larger property
- <sub>2</sub> Moving because of work
- <sub>3</sub> Want a different type of property
- <sub>4</sub> Want to move to a better area/away from vandalism
- <sub>5</sub> Want a smaller property
- <sub>6</sub> To buy own house/flat
- <sub>7</sub> Ill health/old age (poor health)
- <sub>8</sub> Want a different area
- <sub>9</sub> Dislike neighbours/unfriendly people
- <sub>10</sub> Change in family size
- <sub>11</sub> Want a better house (e.g. central heating/bath)
- <sub>12</sub> Want a garden
- <sub>13</sub> To be nearer friends/family
- <sub>14</sub> This accommodation is temporary
- <sub>15</sub> House/flat in poor repair
- <sub>16</sub> Can't afford to stay
- <sub>17</sub> Other (please specify) \_\_\_\_\_

**9. What sort of dwelling do you live in? Please tick (✓) one box only**

- <sub>1</sub> A detached single-storey house
- <sub>2</sub> A detached house with more than one storey
- <sub>3</sub> A semi-detached single-storey house
- <sub>4</sub> A semi-detached house with more than one storey
- <sub>5</sub> A terrace house
- <sub>6</sub> A purpose built flat
- <sub>7</sub> A flat in a converted building
- <sub>8</sub> An apartment in an apartment block with more than two floors
- <sub>9</sub> Other (please specify) \_\_\_\_\_

**10. What is the main fuel you use to heat your home? Please tick (✓) one box only**

- <sub>1</sub> Gas
- <sub>2</sub> Electricity
- <sub>3</sub> LPG
- <sub>4</sub> Oil
- <sub>5</sub> Wood
- <sub>6</sub> Coal
- <sub>7</sub> None – do not heat my home
- <sub>8</sub> Other (please specify) \_\_\_\_\_

**11. Which heating appliances do you frequently use? Please tick (✓) any in frequent use**

- <sub>1</sub> Central heating
- <sub>2</sub> Electric storage heaters
- <sub>3</sub> Heat pump
- <sub>4</sub> Under floor heating - electric
- <sub>5</sub> Portable gas heater
- <sub>6</sub> Fixed gas heater – with flue
- <sub>7</sub> Fixed gas heater – no flue
- <sub>8</sub> Solid fuel open fire
- <sub>9</sub> Solid fuel enclosed burner
- <sub>10</sub> Fixed electric heaters/fires
- <sub>11</sub> Portable electric heaters/fires
- <sub>12</sub> None
- <sub>13</sub> Other (please specify) \_\_\_\_\_

**12. During the winter months, do you generally find that your heating keeps you warm enough at home? Please tick (✓) one box only**

- <sub>1</sub> Yes, always
- <sub>2</sub> Yes, most of the time
- <sub>3</sub> Only some of the time
- <sub>4</sub> No, never
- <sub>5</sub> Don't know

**13. How satisfied are you with each of the following aspects of your heating system in winter? Please tick (✓) one box only for each aspect**

	Very satisfied	Satisfied	Neither satisfied nor dissatisfied	Dissatisfied	Very Dissatisfied
a. The type of heating	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
b. The cost of running your system	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
c. The amount of heat you can get	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
d. The control over the level of heat	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
e. How quickly you can heat your home	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
f. The heating throughout all areas of your home	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
g. The ease of use of the system	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>

**14. Do you own the house that you live in? Please tick (✓) one box only**

- <sub>1</sub> Yes → paying mortgage - go to Question 18
- <sub>2</sub> Yes → without mortgage - go to Question 18
- <sub>3</sub> No → renting – go to Question 15

**15. Who is your landlord?** *Please tick (✓) one box only*

- <sub>1</sub> Private person(s)/private trust
- <sub>2</sub> Business or other organisation
- <sub>3</sub> Local authority or city council
- <sub>4</sub> Housing New Zealand Corporation (HNZC)
- <sub>5</sub> Other State Landlord (State-owned corporation or State-owned Enterprise)
- <sub>6</sub> Employer of someone in the household
- <sub>7</sub> Other business or organisation (please specify) \_\_\_\_\_

**16. How much rent do you pay to the owner (or their agent) for this dwelling?**

\$ \_\_\_\_\_ or  No rent paid

*If rent paid, indicate period: Please tick (✓) one box only*

- <sub>1</sub> Weekly
- <sub>2</sub> Fortnightly/ Two weekly
- <sub>3</sub> Four weekly
- <sub>4</sub> Monthly
- <sub>5</sub> Other (please specify) \_\_\_\_\_

**17. Would you prefer to live in a house you owned?** *Please tick (✓) one box only*

- <sub>1</sub> Yes
- <sub>2</sub> No

**18. How would you describe the condition of your current house?** *Please tick (✓) one box only*

- <sub>1</sub> Excellent - No immediate repair and maintenance needed
- <sub>2</sub> Good - Minor maintenance needed
- <sub>3</sub> Average - Some repair & maintenance needed
- <sub>4</sub> Poor - Immediate repairs and maintenance needed
- <sub>5</sub> Very poor - Extensive and immediate repairs and maintenance needed

**19. Do you get damp/condensation in any rooms?** *Please tick (✓) one box only*

- <sub>1</sub> Yes → go to Question 20
- <sub>2</sub> No → go to Question 21

**20. In which of the following rooms do you have problems associated with damp/condensation? Please tick (✓) all boxes that apply**

	Steamed up windows	Steamed/wet walls	Damage to paint	Carpet mould	Wall mould	Staining
a. Main bedroom	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>
b. 2 <sup>nd</sup> bedroom	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>
c. 3 <sup>rd</sup> bedroom	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>
d. 4 <sup>th</sup> bedroom	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>
e. 5 <sup>th</sup> bedroom	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>
f. Kitchen	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>
g. Sitting room/lounge	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>
h. Dining room	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>
i. Bathroom	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>
j. Laundry	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>
k. Other room (please specify) _____	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>	<input type="checkbox"/> <sub>6</sub>

**21. Are there any special features that help your child to enter or leave your present home? Please tick (✓) one box only**

- <sub>1</sub> Yes → go to Question 22  
<sub>2</sub> No → go to Question 23

**22. Has your house got: Please tick (✓) all boxes that apply**

- <sub>1</sub> Easy-to-get-at driveways, ramps or street level entrances  
<sub>2</sub> Easy-to-get-at passenger drop off or pick-up areas  
<sub>3</sub> Elevator or lift devices  
<sub>4</sub> Widened doorways  
<sub>5</sub> Automatic or easy-to-open doors  
<sub>6</sub> Hand rails at steps or doorway  
<sub>7</sub> Lever door handles  
<sub>8</sub> Garage or carport which meets disabled person's needs  
<sub>9</sub> Any other special features (please specify) \_\_\_\_\_

**23. To enter or leave your present home, does your child need any special features which you do not already have? Please tick (✓) one box only**

- <sub>1</sub> Yes → go to Question 24  
<sub>2</sub> No → go to Question 26

**24. Which special features does your child need but your home does not have? Please tick (✓) all boxes that apply**

- <sub>1</sub> Easy-to-get-at driveways, ramps or street level entrances
- <sub>2</sub> Easy-to-get-at passenger drop off or pick-up areas
- <sub>3</sub> Elevator or lift devices
- <sub>4</sub> Widened doorways
- <sub>5</sub> Automatic or easy-to-open doors
- <sub>6</sub> Hand rails at steps or doorway
- <sub>7</sub> Lever door handles
- <sub>8</sub> Garage or carport which meets disabled person's needs
- <sub>9</sub> Any other special features (please specify) \_\_\_\_\_

**25. Why doesn't your house have this/these feature(s): Please tick (✓) all boxes that apply**

- <sub>1</sub> Did not know the feature existed
- <sub>2</sub> Did not know where to get it
- <sub>3</sub> Feature is only needed occasionally
- <sub>4</sub> Condition is not serious enough
- <sub>5</sub> Too costly or cannot afford it
- <sub>6</sub> Applied for financial help but were not eligible
- <sub>7</sub> Did not know I could apply for financial help or where to get it
- <sub>8</sub> The landlord is not willing
- <sub>9</sub> Other reason (please specify) \_\_\_\_\_

**26. Because of your child's condition or health problem, does your home have any special features inside? Only count things attached to your house. Don't count portable household equipment or appliances such as chairs or shower stools. Please tick (✓) one box only**

- <sub>1</sub> Yes → go to Question 27
- <sub>2</sub> No → go to Question 28

**27. Does your house have: Please tick (✓) all boxes that apply**

- <sub>1</sub> Grab or hand rails
- <sub>2</sub> Elevator or lift device
- <sub>3</sub> Widened doorways or hallways
- <sub>4</sub> Visual or flashing alarms
- <sub>5</sub> Audio warning device
- <sub>6</sub> Automatic or easy-to-open doors or windows
- <sub>7</sub> Lowered benches or sinks
- <sub>8</sub> Lowered switches or power points
- <sub>9</sub> Bed or bath lifts
- <sub>10</sub> Wet area shower
- <sub>11</sub> Easy-to-get at toilet
- <sub>12</sub> Lever door handles
- <sub>13</sub> Emergency call system
- <sub>14</sub> Any other special feature(please specify) \_\_\_\_\_



**28. Inside your home, does your child need any special features which your home does not already have? Only count things attached to your house. Don't count portable household equipment or appliances such as chairs or shower stools. Please tick (✓) one box only**

<sub>1</sub> Yes → go to Question 29

<sub>2</sub> No → go to Question 31

**29. Which special features does your child need but your home does not have? Please tick (✓) all boxes that apply**

<sub>1</sub> Grab or hand rails

<sub>2</sub> Elevator or lift device

<sub>3</sub> Widened doorways or hallways

<sub>4</sub> Visual or flashing alarms

<sub>5</sub> Audio warning device

<sub>6</sub> Automatic or easy-to-open doors or windows

<sub>7</sub> Lowered benches or sinks

<sub>8</sub> Lowered switches or power points

<sub>9</sub> Bed or bath lifts

<sub>10</sub> Wet area shower

<sub>11</sub> Easy-to-get at toilet

<sub>12</sub> Lever door handles

<sub>13</sub> Emergency call system

<sub>14</sub> Any other special feature(please specify) \_\_\_\_\_

**30. Why does your house not have this/these feature(s)? Please tick (✓) all boxes that apply**

<sub>1</sub> Did not know the feature existed

<sub>2</sub> Did not know where to get it

<sub>3</sub> Feature is only needed occasionally

<sub>4</sub> Condition is not serious enough

<sub>5</sub> Too costly or cannot afford it

<sub>6</sub> Applied for financial help but were not eligible

<sub>7</sub> Did not know I could apply for financial help or where to get it

<sub>8</sub> The landlord is not willing

<sub>9</sub> Other reason (please specify) \_\_\_\_\_

<b>House Alterations/Adaptations</b>
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**31. If you have listed a number of house alterations and adaptations, which of those were made specifically for your child? If none → go to Question 44**

<sub>1</sub> All of them OR note details for each relevant type below

	Alteration specifically for my child
a. Grab or hand rails	<input type="checkbox"/>
b. Elevator or lift device	<input type="checkbox"/>
c. Widened doorways or hallways	<input type="checkbox"/>
d. Visual or flashing alarms	<input type="checkbox"/>
e. Audio warning device	<input type="checkbox"/>
f. Automatic or easy-to-open doors or windows	<input type="checkbox"/>
g. Lowered benches or sinks	<input type="checkbox"/>
h. Lowered switches or power points	<input type="checkbox"/>
i. Bed or bath lifts	<input type="checkbox"/>
j. Wet area shower	<input type="checkbox"/>
k. Easy-to-get at toilet	<input type="checkbox"/>
l. Lever door handles	<input type="checkbox"/>
m. Emergency call system	<input type="checkbox"/>
n. Easy-to-get-at driveways, ramps or street level entrances	<input type="checkbox"/>
o. Easy-to-get-at passenger drop off or pick-up areas	<input type="checkbox"/>
p. Any other special feature (please specify)	<input type="checkbox"/>

**32. Whose idea was it to make alterations? Please tick (✓) all boxes that apply**

- <sub>1</sub> My/our own
- <sub>2</sub> My son or daughter's doctors
- <sub>3</sub> Disabled son or daughter
- <sub>4</sub> Non-disabled son or daughter
- <sub>5</sub> Occupational therapist
- <sub>6</sub> ACC case manager
- <sub>7</sub> Needs Assessor (DHB)
- <sub>8</sub> Other (please specify) \_\_\_\_\_

**33. Were you involved in deciding what needed to be altered and what work would be done? Please tick (✓) one box only**

- <sub>1</sub> Not involved
- <sub>2</sub> Partially involved
- <sub>3</sub> Fully involved

**34. Was your disabled child involved in deciding what needed to be altered and what work would be done? Please tick (✓) one box only**

- <sub>1</sub> Not involved
- <sub>2</sub> Partially involved
- <sub>3</sub> Fully involved

**35. How much do you estimate that the alterations cost in total?**

\$ \_\_\_\_\_

**36. Did you get any financial assistance from an agency or other person to undertake the alterations? Please tick (✓) one box only**

- <sub>1</sub> Yes → go to Question 37
- <sub>2</sub> No → go to Question 39

**37 How much was the financial assistance you received?**

\$ \_\_\_\_\_

**38. What was the source of the financial assistance? Please tick (✓) all boxes that apply**

- <sub>1</sub> Family trust/family members
- <sub>2</sub> ACC
- <sub>3</sub> DHB
- <sub>4</sub> Ministry of Social Development (MSD/WINZ)
- <sub>5</sub> HNZC
- <sub>6</sub> Other (please specify) \_\_\_\_\_
- <sub>7</sub> Do not know

**39. How much have you personally paid for alterations?**

\$ \_\_\_\_\_ OR <sub>1</sub> Nothing → if nothing - go to Question 41

**40. If you personally paid some or all of the cost of the alterations, did you pay for alterations out of: Please tick (✓) all boxes that apply**

- <sub>1</sub> Savings
- <sub>2</sub> Compensation lump sum (ACC)
- <sub>3</sub> Private insurance payment
- <sub>4</sub> Out of income
- <sub>5</sub> Took out a loan/extended my/our mortgage
- <sub>6</sub> Other (please specify) \_\_\_\_\_

**41. Have the alterations been helpful to your child in the following areas?**

*Please tick (✓) one box only for each area*

	Yes, alterations helped significantly	Yes, alterations helped marginally	No, alterations did not help	N/A – no help needed in this area
a. Getting to school, tertiary education or training course	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
b. Continuing with interests	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
c. Being able to go out	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
d. Helping around the house	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
e. Taking a bath or shower	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
f. Using the toilet	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
g. Feeling safer (reduced risk of accident)	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
h. Moving around the house	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
i. Having a social life	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
j. Needing less help from others	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
k. Getting to work	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>

**42. Are you happy with the way the alterations look?** *Please tick (✓) one box only*

<sub>1</sub> Yes

<sub>2</sub> No

**43. Have the alterations caused your disabled child or anyone else in your house any problems?** *Please tick (✓) one box only*

<sub>1</sub> Yes → Please detail below

<sub>2</sub> No

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## Neighbourhood

**44. Can your disabled child easily get to and use the following services? Please tick (✓) one box only for each service**

	Yes	No
a. Buses or trains	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>
b. Pre school, school or education facility	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>
c. Health centre or doctor	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>
d. Pharmacy	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>
e. Dairy, grocery or supermarket	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>
f. Bank and/or money machine	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>
g. Post office	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>
h. Public park or other open space	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>
i. Other recreation or sports facility, for example a swimming pool	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>
j. Church, marae, community centre or meeting place	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>

## Household Composition & Demographics

**45. What is the name of the place where you live?**

Please write the location \_\_\_\_\_

**46. Which age group are you in? Please tick (✓) one box only**

- <sub>1</sub> Under 20 years
- <sub>2</sub> 20 - 29 years
- <sub>3</sub> 30 - 39 years
- <sub>4</sub> 40 - 49 years
- <sub>5</sub> 50 - 64 years
- <sub>6</sub> 65 years or more

**47. How many people are there in your household (counting yourself)?**

Please state the number \_\_\_\_\_

**48. From the list below, please tick the box which best describes your household. Please tick (✓) one box only**

- <sub>1</sub> Couple with dependent children
- <sub>2</sub> Sole parent with dependant children
- <sub>3</sub> Other multi-person household
- <sub>4</sub> Other (please describe) \_\_\_\_\_

**49. Please indicate on the list below your household income before tax annually? Please tick (✓) one box only**

- <sub>1</sub> loss
- <sub>2</sub> zero income
- <sub>3</sub> \$1 - \$5000
- <sub>4</sub> \$5001 - \$10,000
- <sub>5</sub> \$10,001 - \$15,000
- <sub>6</sub> \$15,001 - \$20,000
- <sub>7</sub> \$20,001 - \$25,000
- <sub>8</sub> \$25,001 - \$30,000
- <sub>9</sub> \$30,001 - \$40,000
- <sub>10</sub> \$40,001 - \$50,000
- <sub>11</sub> \$50,001 - \$70,000
- <sub>12</sub> \$70,001 - \$100,000
- <sub>13</sub> \$100,001 or more

**50. Which of the following best describes your situation? Please tick (✓) one box only**

- <sub>1</sub> Employer
- <sub>2</sub> Employed full-time
- <sub>3</sub> Employed part-time
- <sub>4</sub> Self-employed/freelance
- <sub>5</sub> Unemployed/seeking work
- <sub>6</sub> Retired
- <sub>7</sub> Looking after family/home
- <sub>8</sub> Full-time student at college/university
- <sub>9</sub> Not employed because of long term illness or disability
- <sub>10</sub> Other (please specify) \_\_\_\_\_

**51. Age of youngest household member? Please tick (✓) one box only**

- <sub>1</sub> 0 - 4 years
- <sub>2</sub> 5 - 9 years
- <sub>3</sub> 10 -14 years
- <sub>4</sub> 15 - 19 years
- <sub>5</sub> 20 - 29 years
- <sub>6</sub> 30 - 39 years
- <sub>7</sub> 40 - 49 years
- <sub>8</sub> 50 – 64 years
- <sub>9</sub> 65 years or more

**52. Age of eldest household member? Please tick (✓) one box only**

- <sub>1</sub> Under 20 years
- <sub>2</sub> 20 - 29 years
- <sub>3</sub> 30 - 39 years
- <sub>4</sub> 40 - 49 years
- <sub>5</sub> 50 – 64 years
- <sub>6</sub> 65 years or more

**53. Which ethnic group does your disabled child belong to? Please tick (✓) all that apply**

- <sub>1</sub> New Zealand European
- <sub>2</sub> Maori
- <sub>3</sub> Samoan
- <sub>4</sub> Cook Island Maori
- <sub>5</sub> Tongan
- <sub>6</sub> Niuean
- <sub>7</sub> Chinese
- <sub>8</sub> Indian
- <sub>9</sub> Other (please specify) \_\_\_\_\_

**54. Which ethnic group do you belong to? Please tick (✓) all that apply**

- <sub>1</sub> New Zealand European
- <sub>2</sub> Maori
- <sub>3</sub> Samoan
- <sub>4</sub> Cook Island Maori
- <sub>5</sub> Tongan
- <sub>6</sub> Niuean
- <sub>7</sub> Chinese
- <sub>8</sub> Indian
- <sub>9</sub> Other (please specify) \_\_\_\_\_

**55. Is your disabled child? Please tick (✓) one box only**

- <sub>1</sub> Male
- <sub>2</sub> Female

**56. Are you? Please tick (✓) one box only**

- <sub>1</sub> Male
- <sub>2</sub> Female

<b>Disability</b>
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**57. Does your child have difficulties (which have lasted six months or more) with any of the following activities? Please tick (✓) one box only for each activity**

	With difficulty	No difficulty	N/A do not do activity
a. Walking the distance around a rugby field without resting (approx 300metres or 400 yards)	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
b. Walking up and down a flight of stairs (that is about 12 steps)	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
c. Carrying something as heavy as a 5 kilo bag of potatoes while walking 10 metres or 30 feet	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
d. Moving from one room to another	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
e. Standing for 20 minutes at a time	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
f. Moving around your house without assistance or modification to the house	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
g. Moving around your neighbourhood without assistance	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
h. Moving around your town/city without assistances	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>

*If no difficulty with any of the activities in Question 57 → go to Question 62, otherwise → go to Question 58.*

**58. At what age did your child first have difficulty doing these activities?**

Age: \_\_\_\_\_ OR <sub>1</sub> Always had difficulties

**59. What is the main condition or health problem which causes this difficulty?**

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**60. Which of the following BEST describes the cause of this condition or health problem? Please tick (✓) one box only**

- <sub>1</sub> A disease or illness
- <sub>2</sub> An accident or injury (includes burns, near drowning, poisoning)
- <sub>3</sub> It existed at birth (or occurred during birth)
- <sub>4</sub> Natural ageing
- <sub>5</sub> Other (please specify) \_\_\_\_\_
- <sub>6</sub> Don't know



**61. If condition/health problem caused by an accident, was that: Please tick (✓) one box only**

- <sub>1</sub> An accident or injury at home
  - <sub>2</sub> A motor vehicle accident
  - <sub>3</sub> An accident or injury at work
  - <sub>4</sub> A sports accident or injury
  - <sub>5</sub> Another type of accident or injury (please specify) \_\_\_\_\_
- 

**62. What would you estimate your child's levels of support needs are? Please tick (✓) one box only**

- <sub>1</sub> Low support needs
- <sub>2</sub> Medium support needs
- <sub>3</sub> High support needs

<b>Housing History</b>
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**63. When your child was first disabled what was their living situation? Please tick (✓) one box only**

- <sub>1</sub> Lived at home with us
- <sub>2</sub> Other (please specify) \_\_\_\_\_

**64. Did your child's disability mean that you had to move or modify the house at the time they were disabled? Please tick (✓) one box only**

- <sub>1</sub> Yes → go to Question 65
- <sub>2</sub> No → go to Question 69

**65. If yes, did you: Please tick (✓) one box only**

- <sub>1</sub> Modify our existing house
- <sub>2</sub> Move to modified rental accommodation
- <sub>3</sub> Move to a modified home we purchased
- <sub>4</sub> Other (please specify) \_\_\_\_\_

**66. How many times have you moved since the first house alterations/adaptations? If no moves, go to → Question 69**

Number of moves \_\_\_\_\_

**67. How many house modifications/alterations/adaptations have you done?**

Number of different sets of alterations successively at the same house or at a succession of houses \_\_\_\_\_

**68. Who funded the different sets of modifications to houses? Please tick (✓) all that apply**

- <sub>1</sub> Self/partner
- <sub>2</sub> Family trust/extended family members
- <sub>3</sub> ACC
- <sub>4</sub> DHB
- <sub>5</sub> Other (please specify) \_\_\_\_\_

**69. If you have any further comments about your disabled child's past or future housing situations, please feel free to comment below.**

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**ANNEX C**  
**CHAI QUESTIONNAIRE**

## ACCESSIBLE HOUSING FOR OUR FUTURE

The Centre for Research, Evaluation and Social Assessment (CRESA) and the Disability Resource Centre (DRC) Auckland are conducting research into accessible housing for the future aging and disabled population in New Zealand. The Centre for Housing Research, Aotearoa New Zealand (CHRANZ) has commissioned the research.

The aim of this research is to assist the housing and disability sectors to ensure the best possible housing access, over the next twenty five years, for people living with disability who need a housing adaptation. These include modifications to access ways, such as automatic or easy-to-open doors, wheelchair access, easy-to-get at driveways, ramps, drop off and pick up areas, widened doorways, rails, elevator or lift devices, visual or flashing alarms, audio warning device, lowered benches, a wet area shower or easy-to-get at toilet.

**We greatly appreciate your help with this research, as it is important we include providers of various types of housing services. Your answers will be treated with complete confidentiality. All information collected in this survey will be aggregated, and no names or personal details will be identified in reports.**

We would appreciate you spending a few minutes filling in the attached questionnaire. If you have any enquires about this research, or would like some help in filling out the questionnaire, please contact:

Kay Saville-Smith, CRESA free-call number 0508 427 372  
Bernadette Ryan, DRC Auckland 09 625 0314  
Bev James, CRESA free-call number 0508 427 372

Please return your completed questionnaire **by 15 September 2006** to this email: [bevjames@xtra.co.nz](mailto:bevjames@xtra.co.nz)

Or if you prefer, print off this questionnaire, complete it and fax to: 04 4733087  
If you want further information about this research go to: [www.chranz.co.nz](http://www.chranz.co.nz)



14 Erson Avenue  
Royal Oak  
AUCKLAND  
Phone (09) 625-8069  
Or 0800-693 342



Level 6 CSI House  
166 - 168 Featherston Street  
WELLINGTON  
Phone (04) 4733071

1. **Do you provide any of the following housing-related activities?** *Please tick (✓) all boxes that apply*

- <sub>1</sub> Adaptations or modifications to dwellings
- <sub>2</sub> Advice on home repairs and maintenance for older people
- <sub>3</sub> Advice on home repairs and maintenance for people with physical or sensory disabilities
- <sub>4</sub> Home repairs and maintenance service for older people
- <sub>5</sub> Home repairs and maintenance service for people with physical or sensory disabilities
- <sub>6</sub> Accommodation support service for older people
- <sub>7</sub> Accommodation support service for people with physical or sensory disabilities
- <sub>8</sub> Other housing services for older people (please describe)

\_\_\_\_\_

<sub>9</sub> Other housing services for people with physical or sensory disabilities (please describe) \_\_\_\_\_

2. **How many mortgages do you provide for people with moderate to severe physical or sensory disabilities?**

*Number of mortgages:* \_\_\_\_\_

Do not provide mortgages

3. **How many rental dwellings do you provide?**

*Number of rental dwellings:* \_\_\_\_\_

Do not provide rental accommodation

*If no rental dwellings → go to Question 8*

4. **How many rental dwellings do you provide for older people?**

*Number of dwellings:* \_\_\_\_\_

5. **How many rental dwellings do you provide for people with moderate to severe physical or sensory disabilities?**

*Number of dwellings:* \_\_\_\_\_

6. **How many of your rental dwellings have modifications?**

*Number of dwellings:* \_\_\_\_\_

*If one or more dwellings have modifications → go to Question 7, otherwise → go to Question 8*

7. **What type of modifications do your rental dwellings have?** For each modification please write the number of dwellings it applies to:

Modification	Number of Dwellings
a. Grab or hand rails	
b. Elevator or lift device	
c. Widened doorways or hallways	
d. Visual or flashing alarms	
e. Audio warning device	
f. Automatic or easy-to-open doors or windows	
g. Lowered benches or sinks	
h. Lowered switches or power points	
i. Bed or bath lifts	
j. Wet area shower	
k. Easy-to-get at toilet	
l. Lever door handles	
m. Emergency call system	
n. Easy-to-get-at driveways, ramps or street level entrances	
o. Easy-to-get-at passenger drop off or pick-up areas	

**Any other special features?** (please specify)

All Dwellings: \_\_\_\_\_

Some Dwellings: \_\_\_\_\_

8. **Do people come to your organisation because they are seeking housing with modifications?** Please tick (✓) one box only

- <sub>1</sub> Yes → Go to Question 9
- <sub>2</sub> No → Go to Question 10

9. **What type of modifications do people typically want in the house they are seeking?** Please tick (✓) all boxes that apply

- <sub>1</sub> Grab or hand rails
- <sub>2</sub> Elevator or lift device
- <sub>3</sub> Widened doorways or hallways
- <sub>4</sub> Visual or flashing alarms
- <sub>5</sub> Audio warning device
- <sub>6</sub> Automatic or easy-to-open doors or windows
- <sub>7</sub> Lowered benches or sinks
- <sub>8</sub> Lowered switches or power points
- <sub>9</sub> Bed or bath lifts
- <sub>10</sub> Wet area shower
- <sub>11</sub> Easy-to-get at toilet
- <sub>12</sub> Lever door handles
- <sub>13</sub> Emergency call system
- <sub>14</sub> Easy-to-get-at driveways, ramps or street level entrances
- <sub>15</sub> Easy-to-get-at passenger drop off or pick-up areas
- <sub>16</sub> Any other special feature (please specify) \_\_\_\_\_

10. **Do you keep a register of your dwellings (that you own or manage) that have modifications?** *Please tick (✓) one box only*

- <sub>1</sub> Yes
- <sub>2</sub> No
- <sub>98</sub> Not applicable

11. **Do you keep a register of other dwellings (not owned or managed by you) that have modifications to which you can refer people?** *Please tick (✓) one box only*

- <sub>1</sub> Yes
- <sub>2</sub> No

12. **Do you match people who need a modified dwelling to a suitable dwelling?** *Please tick (✓) one box only*

- <sub>1</sub> Yes
- <sub>2</sub> No

13. **Are you considering purchasing one or more modified properties for rental to people with a mobility disability?** *Please tick (✓) one box only*

- <sub>1</sub> Yes
- <sub>2</sub> No

14. **In what locations do you provide housing services?**

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15. **If you have any further comments about housing-related needs or services for older people or people with physical or sensory disabilities, please note them here.**

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**ANNEX D**  
**REAL ESTATE AGENTS QUESTIONNAIRE**



## REAL ESTATE AGENT QUESTIONNAIRE TELEPHONE INTERVIEW

The Centre for Research, Evaluation and Social Assessment (CRESA) and the Disability Resource Centre (DRC) Auckland are conducting research into accessible housing for the future aging and disabled population in New Zealand. The Centre for Housing Research, Aotearoa New Zealand (CHRANZ) has commissioned the research.

The aim of this research is to understand the demand and supply of housing for people with mobility problems. As real estate agents you have a unique insight into housing markets. The survey only takes a few minutes.

**We greatly appreciate your help with this research. Your answers will be treated with complete confidentiality. All information collected in this survey will be aggregated, and no names or personal details will be identified in reports.**

If you have any enquires about this research, please contact:

Kay Saville-Smith, CRESA free-call number 0508 427 372  
Bev James, CRESA free-call number 0508 427 372

If you want further information about this research go to: [www.chranz.co.nz](http://www.chranz.co.nz)



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Or 0800-693 342



Level 6 CSI House  
166 - 168 Featherston Street  
WELLINGTON  
Phone (04) 4733071

Interviewer Name:

Interview ID:

Interview Date:

Area of Estate Office:

1. **In the last six months how many households with a person with moderate or severe mobility disability have come to you:**

**(a) To buy a house**

*Number of households:* \_\_\_\_\_

**(b) For a rental**

*Number of households:* \_\_\_\_\_

2. **What type of modifications do people with disabilities or old people typically want in the house they are seeking? Please tick (✓) any that they say**

- <sub>1</sub> Grab or hand rails
- <sub>2</sub> Elevator or lift device
- <sub>3</sub> Widened doorways or hallways
- <sub>4</sub> Visual or flashing alarms
- <sub>5</sub> Audio warning device
- <sub>6</sub> Automatic or easy-to-open doors or windows
- <sub>7</sub> Lowered benches or sinks
- <sub>8</sub> Lowered switches or power points
- <sub>9</sub> Bed or bath lifts
- <sub>10</sub> Wet area shower
- <sub>11</sub> Easy-to-get at toilet
- <sub>12</sub> Lever door handles
- <sub>13</sub> Emergency call system
- <sub>14</sub> Easy-to-get-at driveways, ramps or street level entrances
- <sub>15</sub> Easy-to-get-at passenger drop off or pick-up areas
- <sub>16</sub> Any other special feature (please specify) \_\_\_\_\_

3. **On average, how many different houses over a six month period would you show people through?**

*Number of houses:* \_\_\_\_\_

4. **How many houses for sale in the last six months that you've shown people through have had any of the following modifications? For each modification please write the number of houses it applies to:**

<b>Modification</b>	<b>Number of houses</b>
a. Grab or hand rails	
b. Elevator or lift device	
c. Widened doorways or hallways	
d. Visual or flashing alarms	
e. Audio warning device	
f. Automatic or easy-to-open doors or windows	
g. Lowered benches or sinks	
h. Lowered switches or power points	
i. Bed or bath lifts	
j. Wet area shower	
k. Easy-to-get at toilet	
l. Lever door handles	
m. Emergency call system	
n. Easy-to-get-at driveways, ramps or street level entrances	
o. Easy-to-get-at passenger drop off or pick-up areas	

5. **Is the demand for houses for people with moderate or severe mobility problems rising, staying the same or falling?**

**(a) Demand for owner-occupied houses** *Please tick (✓) one box only*

- <sub>1</sub> Rising  
<sub>2</sub> Staying the same  
<sub>3</sub> Falling

**(b) Demand for rental houses** *Please tick (✓) one box only*

- <sub>1</sub> Rising  
<sub>2</sub> Staying the same  
<sub>3</sub> Falling

6. Which statement best reflects your views about the demand and supply of accessible housing for people with moderate or severe mobility problems in the home ownership and rental markets?

(a) Owner-occupied houses Please tick (✓) one box only

- <sub>1</sub> Demand exceeds supply – I can't find enough accessible houses
- <sub>2</sub> Demand meets supply – I can usually find an appropriately modified house for most people
- <sub>3</sub> Supply exceeds demand – there are more modified houses than those who ask for them.

(b) Rental houses Please tick (✓) one box only

- <sub>1</sub> Demand exceeds supply – I can't find enough accessible houses
- <sub>2</sub> Demand meets supply – I can usually find an appropriately modified house for most people
- <sub>3</sub> Supply exceeds demand – there are more modified houses than those who ask for them.

7. Do you keep a register of dwellings that you have for sale or rent that have modifications?

(a) Owner-occupied houses Please tick (✓) one box only

- <sub>1</sub> Yes
- <sub>2</sub> No

(b) Rental houses Please tick (✓) one box only

- <sub>1</sub> Yes
- <sub>2</sub> No

8. Do the modifications increase or decrease the value of the house? Please tick (✓) one box only

- <sub>1</sub> Increase value (questionnaire is finished)
- <sub>2</sub> Decrease value (questionnaire is finished)
- <sub>3</sub> Depends on modifications (if option 3 selected go to Question 9)

9a. **What modifications increase value?** Please tick (✓) any that they say

- <sub>1</sub> Grab or hand rails
- <sub>2</sub> Elevator or lift device
- <sub>3</sub> Widened doorways or hallways
- <sub>4</sub> Visual or flashing alarms
- <sub>5</sub> Audio warning device
- <sub>6</sub> Automatic or easy-to-open doors or windows
- <sub>7</sub> Lowered benches or sinks
- <sub>8</sub> Lowered switches or power points
- <sub>9</sub> Bed or bath lifts
- <sub>10</sub> Wet area shower
- <sub>11</sub> Easy-to-get at toilet
- <sub>12</sub> Lever door handles
- <sub>13</sub> Emergency call system
- <sub>14</sub> Easy-to-get-at driveways, ramps or street level entrances
- <sub>15</sub> Easy-to-get-at passenger drop off or pick-up areas
- <sub>16</sub> Any other special feature (please specify) \_\_\_\_\_

9b. **What modifications decrease value?** Please tick (✓) any that they say

- <sub>1</sub> Grab or hand rails
- <sub>2</sub> Elevator or lift device
- <sub>3</sub> Widened doorways or hallways
- <sub>4</sub> Visual or flashing alarms
- <sub>5</sub> Audio warning device
- <sub>6</sub> Automatic or easy-to-open doors or windows
- <sub>7</sub> Lowered benches or sinks
- <sub>8</sub> Lowered switches or power points
- <sub>9</sub> Bed or bath lifts
- <sub>10</sub> Wet area shower
- <sub>11</sub> Easy-to-get at toilet
- <sub>12</sub> Lever door handles
- <sub>13</sub> Emergency call system
- <sub>14</sub> Easy-to-get-at driveways, ramps or street level entrances
- <sub>15</sub> Easy-to-get-at passenger drop off or pick-up areas
- <sub>16</sub> Any other special feature (please specify) \_\_\_\_\_

**ANNEX E**  
**INTERVIEW GUIDELINES**

## **Interview Guide: Case Studies for Disability Housing - accessible housing for the future aging and disabled population in New Zealand.**

### **INTRODUCTION/BACKGROUND**

Against the background of an aging population and a prevalence rate of about 1 in 5 people having some sort of disability, this research is interested in exploring whether and how the issues of aging and disability impact on the demand for new housing stock. In particular I am interested in talking about what the drivers of demand for new housing are, from your perspective, along with how aging and disability might fit in. I am also interested in talking about design issues, including things like accessibility and adaptability and how these are incorporated into Addison/Lynfield as well as how they might be incorporated into future projects.

The focus is on what is going on now but is also interested in how that might change over the next twenty five years or so.

So maybe we could start by talking about the organisation and your role in it

### **ROLE IN ORGANISATION**

### **HOW LONG WITH ORGANISATION, ROLE ETC**

### **DEMAND**

- Drivers of demand in current climate – explore aging and disability in particular:  
PROBES: ...explore socio-demographic of identified demand and link to number of houses built/adapted for aged/disabled in Addison/Lynfield...are they targeting any particular group of mobility compromised disabled with their buildings and if so why/how eg retirement villages...other drivers eg HNZC reqts,
- Future drivers of demand??  
PROBES: Explore aging and disability as future drivers...issues of accessibility, mobility as drivers of demand... focus anticipated on individual houses/retirement villages/HNZC?
- Rent vs Own

### **HOUSES**

- What sort of design and construction features of houses do you think are important to ensure accessibility and mobility?

## INTERIOR DESIGN

- Consideration of aging and disability in indoor designs/adaptability of indoor designs  
PROBES: Do you currently use indoor designs which maximise mobility inside and reduce the costs of adaptation if a resident moves in or becomes disabled...eg
  - Grab or hand rails
  - Elevator or lift device
  - Widened doorways or hallways
  - Visual or flashing alarms
  - Audio warning device
  - Automatic or easy-to-open doors or windows
  - Lowered benches or sinks
  - Lowered switches or power points
  - Bed or bath lifts
  - Wet area shower
  - Easy-to-get at toilet
  - Lever door handles
  - Emergency call system
  - Any other special feature (please specify) ...give examples if possible...
- Why/why not do you incorporate these particular features?
- Do you promote these features in your marketing? Do these features add value to the property?

## OUTDOOR DESIGN

- Consideration of aging and disability in outdoor designs/adaptability  
PROBES: Do you currently use designs which maximise access into and out of the dwelling and around its outdoor space... give examples...
  - Easy-to-get-at driveways, ramps or street level entrances
  - Easy-to-get-at passenger drop off or pick-up areas
  - Any other special feature (please specify) ...give examples if possible...
- Why/why not do you incorporate these particular features?
- Do you promote these features in your marketing? Do these features add value to the property?

## NEIGHBOURHOOD

- Consideration of mobility issues in neighbourhood design.  
PROBES: Are the public spaces of this neighbourhood designed with mobility in mind? How? Please give examples...
  - wider footpaths, ramps to road
  - local facilities, open space, green space
  - public transport
  - any other special feature
- Why/why not do you incorporate these particular features?
- Do you promote these features in your marketing? Do these features add value to the neighbourhood?
- Maintenance Issues?





Centre for Housing Research

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