

# **AFFORDABLE PLANNED HOUSING: A RESIDENTS' PERSPECTIVE**

Prepared for the NZ Housing Foundation

By CityScope Consultants in conjunction with Nexus Planning &  
Research

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## 1.0 Executive Summary

The Housing Foundation exists to help low income New Zealanders achieve their aspiration of living independently, affordably and sustainably in a stable environment in both their home and their community. This is achieved by increasing the supply and availability of social and affordable housing.

This project set out to investigate the impact of Housing Foundation (HF) mixed blind tenure developments on the quality of life of residents. The aim was to use the Glen Eden development (referred to as “HF Glen Eden”) as a case study to help develop a methodology that can be used in most, if not all, HF developments to monitor and evaluate success and thereby contribute to improvement in HF activities. The fieldwork for the study was conducted in October 2012 and the initial report prepared in February 2012. Since then the Housing Foundation have been working with CityScope Consultants to determine how best to incorporate the findings into other developments and to finalise the report.

The households assisted by HF including in this development are renters who have a low working income and are locked out of the home ownership market. These households are often referred to as “can work, can’t own” and they form the bulk of the intermediate housing market which is now a significant segment of the housing market, existing between social housing and market rental sectors. It is a sector that is forecasted to grow considerably as house prices continue to rise faster than household incomes.

### Research Objectives

The objectives of the research were to determine whether:

- planned affordable housing developments have an impact on a household’s quality of life;
- living in an affordable home impacts on the quality of life of the householders.

### Research Approach

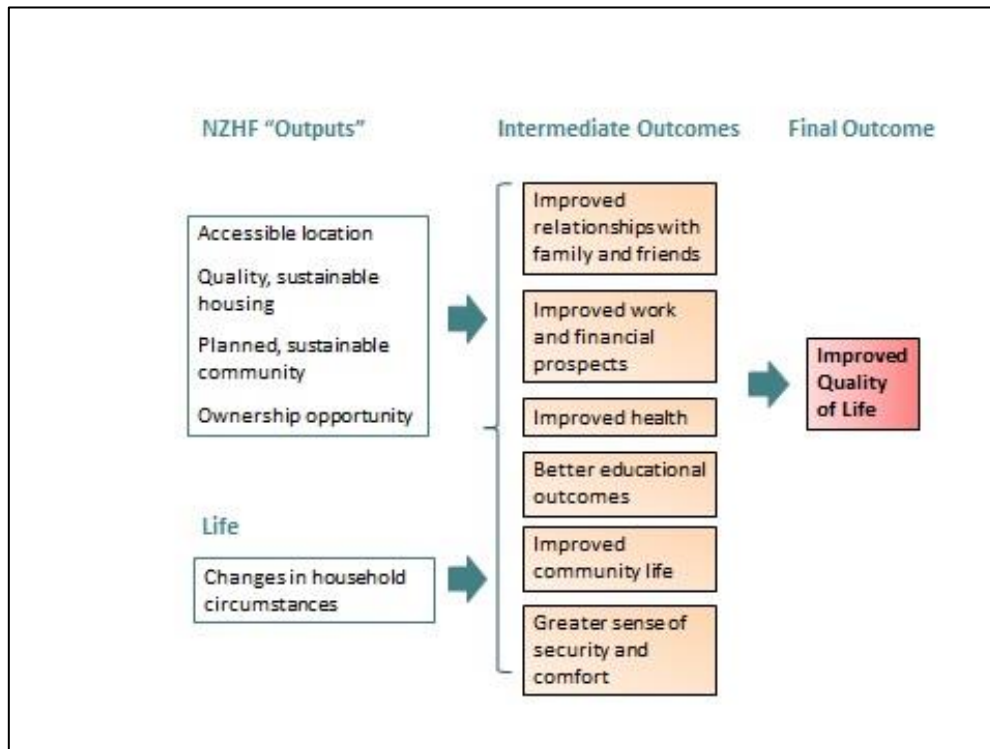
The research has been carried out in three stages:

- 1) Literature Review
- 2) In-depth interviews with eight resident households at HF Glen Eden
- 3) A survey of residents living there (n=47) including both HF clients and tenants of 3<sup>rd</sup> party social housing providers. Residents of the neighbouring Albionvale Rd catchment (n=23) were also surveyed.

The final report outlines the findings from Stages 2 and 3. The results of the literature review are reported separately.

A “logic model” was developed which defines how quality of life may be impacted by housing .

### The Impact of Housing on Quality of Life



The structure of the model was identified in the literature review and has been refined in line with findings from the case studies and quantitative survey of residents undertaken for this study.

We have applied the model to HF Glen Eden using residents’ perceptions of their life now compared to life in their previous home, using survey responses to identify shifts in intermediate outcomes and quality of life.

There are some limitations with this approach. The survey relied upon residents’ recall of events before moving to Glen Eden (most residents have lived in HF Glen Eden for 2-3 years); post-move rationalisation of the decisions they have made; and potentially a desire to provide favourable answers about life in the development due to their relationship with HF.

#### Summary of Quality of Life Improvements at HF Glen Eden

The research has confirmed the explanatory power of the logic model and in so doing endorsed the HF approach. It has also led to suggestions for fine tuning in some areas and for focusing the key drivers of the programme and residents’ quality of life.

It also puts in place a straightforward methodology for monitoring the benefits of similar programmes and thereby the potential for maintaining and improving effectiveness at other sites.

Figure 1 (below) summarises the proportion of HF Glen Eden residents who feel “Better now” or “Better previously” according to how the move to Glen eden has changes their quality of life.

The table highlights that:

- While the financial position has declined for many, expectations about their financial future has improved for more than half of households;
- Health, particularly in terms of winter illnesses, has improved for many households;
- Enjoyment of the community and participation in events has improved
- Security of tenure and suitability of the house has improved for more than half of households.

**Figure 1: Summary of Quality of Life Improvements at Glen Eden**

Intermediate Outcomes		Better now	Same	Better previously
<i>Relationships</i>	Friends & family	37%	41%	22%
<i>Work and Financials</i>	Employment stability	4%	62%	34%
	Percentage of income on housing	31%	0%	69%
	Financial stress	18%	40%	42%
	Current financial position	17%	38%	45%
	Future financial position	54%	26%	7%
<i>Health</i>	Overall health	63%	30%	7%
	Winter and respiratory illnesses	81%	5%	14%
	Opportunity to exercise	51%	36%	13%
<i>Education<sup>1</sup></i>	Participation	35%	56%	9%
	Achievement	48%	48%	4%
<i>Community</i>	Sense of community	70%	18%	12%
	Neighbours willing to help	48%	33%	19%
	Established relationships	37%	47%	16%
	Participation in events	58%	33%	9%
	Safe neighbourhood	45%	34%	21%
<i>Security &amp; comfort</i>	Security of tenure	63%	21%	16%
	Suitability of house	58%	28%	14%

Note: Future financial position does not add to 100% due 13% who said “don’t know”

Read: 37% of households rate visitation with family or friends more highly since moving to the Glen Eden development; 22% rate the location of their previous home more highly in relation to visitation with family or friends.

<sup>1</sup> Education percentages based on percentage of children and young adults in the development.

## Conclusions from the research

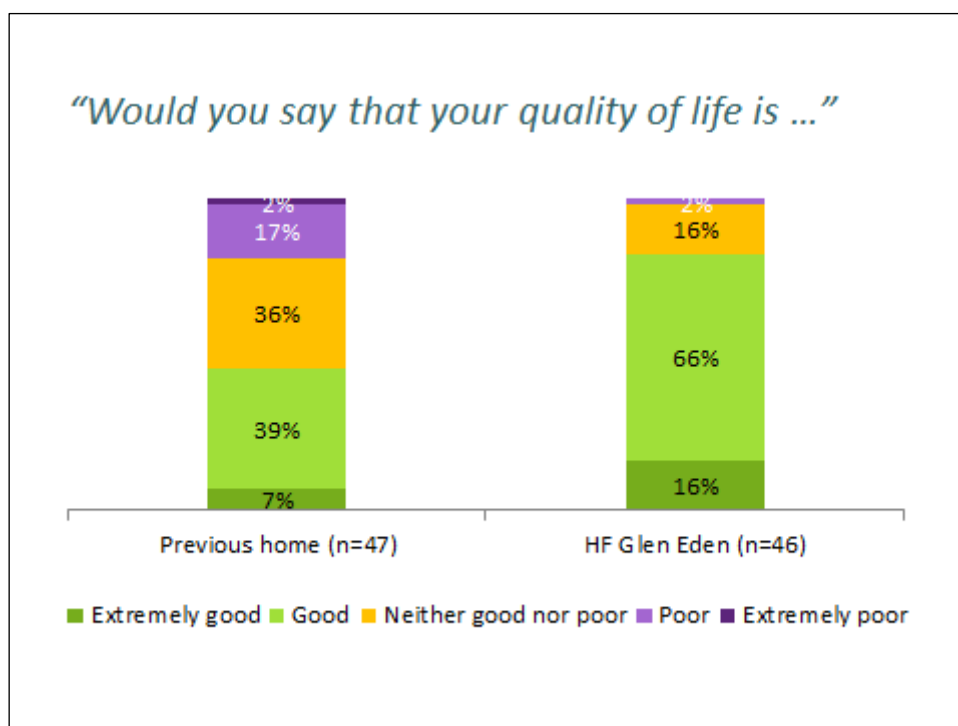
The research supports the following conclusions:

### Improvements in quality of life are achieved

The HF is achieving its objective of improving the quality of life of residents through the provision of quality housing in a planned community at Glen Eden.

More than half of households (54%) at HF Glen Eden rate their quality of life as better now than in the past, while 30% said their quality of life is the same and just 16% said it was worse (Figure 1).

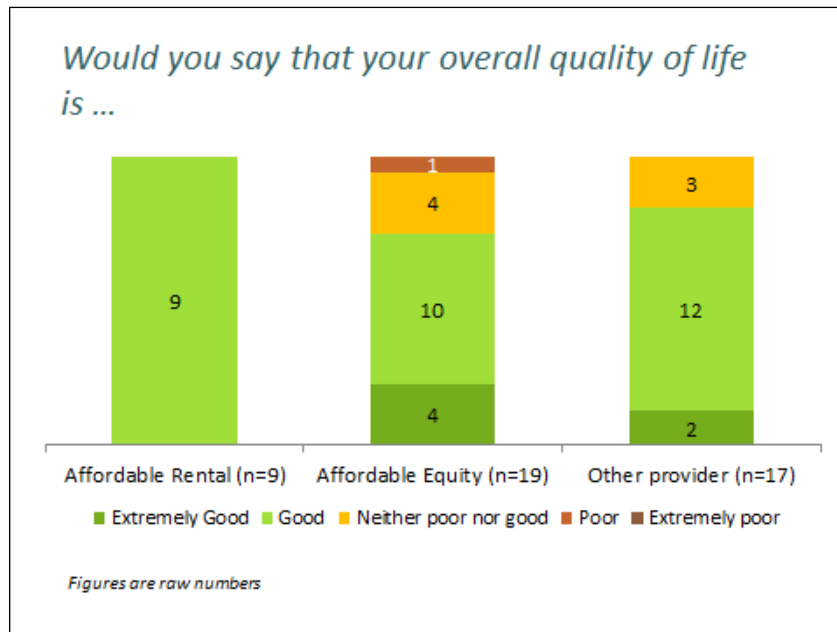
Looked at another way, 82% of HF Glen Eden residents rate their quality of life as good or extremely good in their present location compared with just 46% at their previous location.



### Tenure impacts on quality of life gains

Quality of life gains are evident for residents irrespective of tenure : “affordable equity” (owners), “affordable rentals” (rent to buy) and renters from other providers, but are strongest for those on the road to ownership (i.e. those in the Affordable Rental (“rent to buy”) programme).

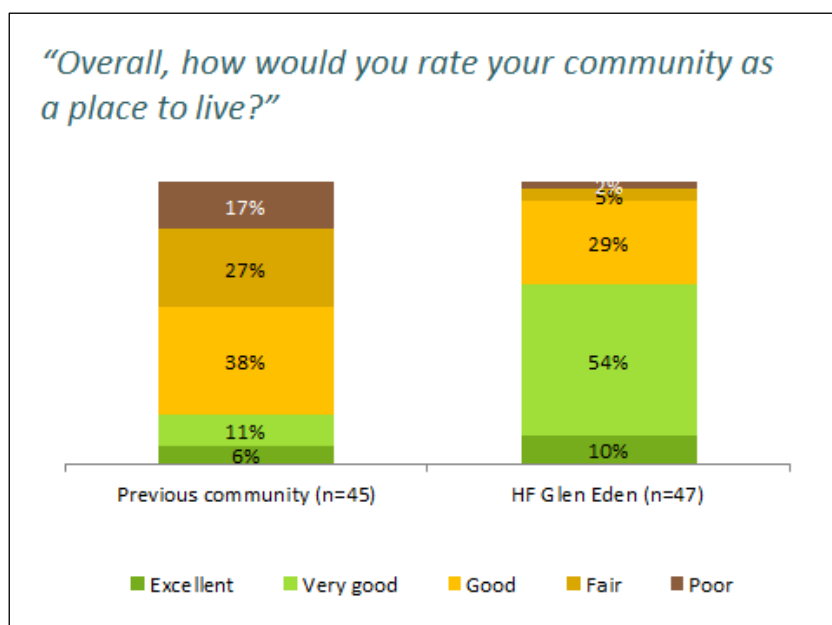




Successful “placemaking” evident in community benefits.

Enhanced enjoyment of and participation in community life is a feature of the HF Glen Eden development and has been key to improving the quality of residents’ lives; this finding gives support to the HF’s focus on community building and its application of its Placemaking principles across all its developments.

Sixty four percent of HF Glen Eden residents rate their quality of life as good or extremely good in their present location compared with just 17% at their previous location.



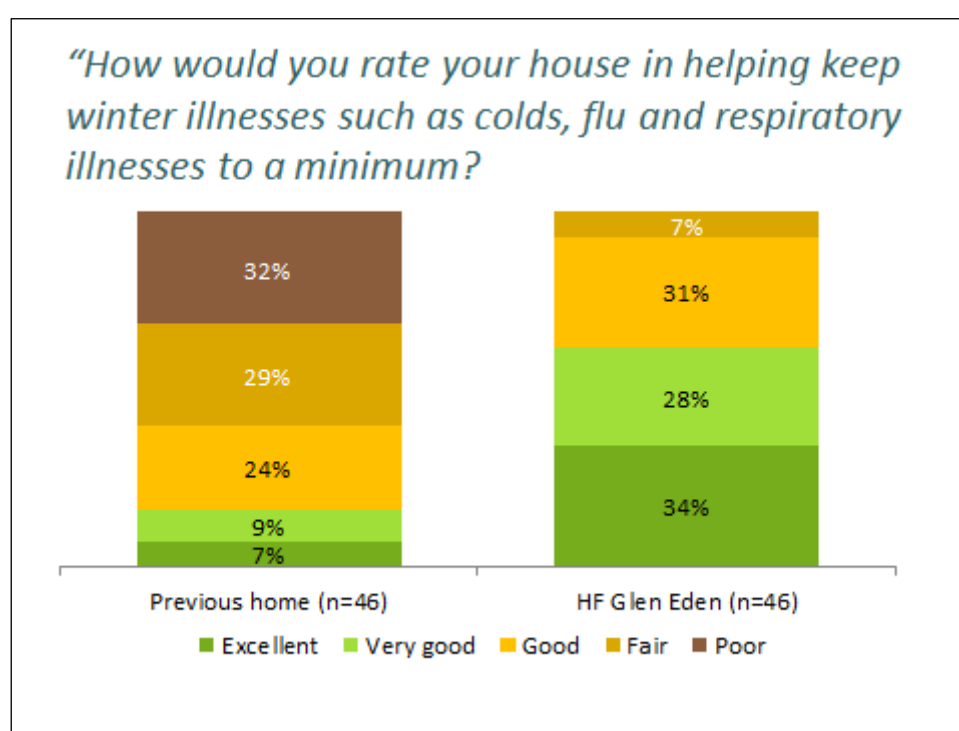
Those who enjoy the community at HF more so than their previous community are more likely to report quality of life gains; those who preferred their previous communities are more likely to report quality of life declines (or no change).

Those experiencing improved community life include different ethnicities and tenure types. Diversity (including mixed tenure and ethnicity) in HF Glen Eden is working well, and contributes to a strong sense of community.

#### Wide benefits from healthy homes

The high quality of the housing at HF Glen Eden contributes to a significant reduction in winter illnesses. Eighty-one percent of residents say that the housing at HF Glen Eden is far more effective at keeping winter illnesses and respiratory illnesses to a minimum than their previous home (Figure 1). It is likely that this improvement in resident health is resulting in a reduction in absenteeism and a reduced demand for healthcare services.

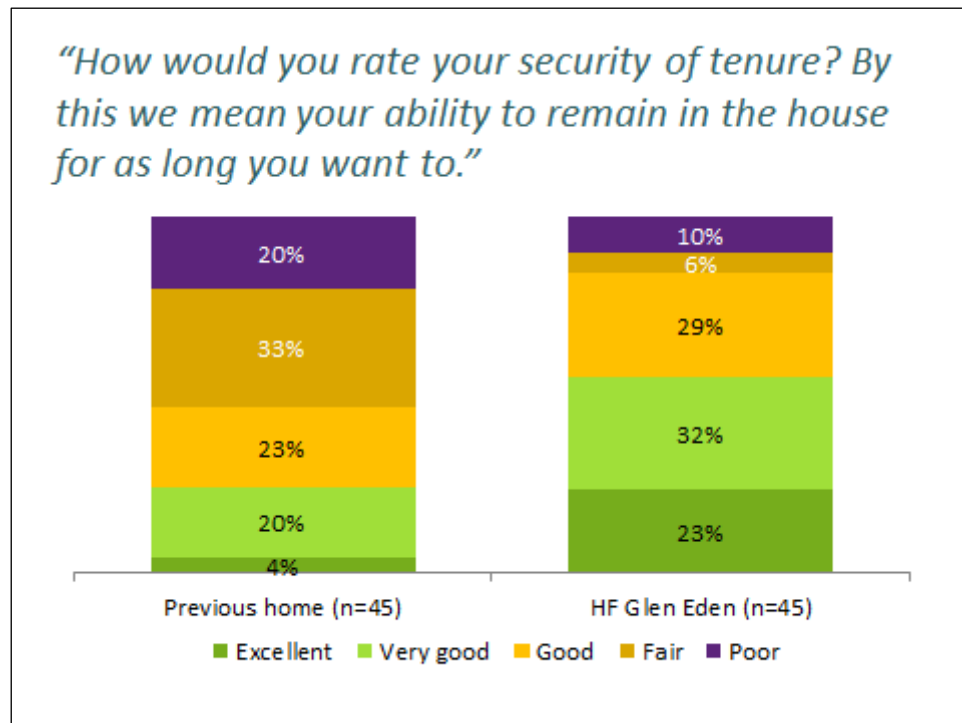
This improvement is reflected in the 62% of HF Glen Eden residents rate their house (and its ability to help keeping winter illnesses to a minimum) as very good or excellent in their present location compared with just 16% at their previous location.



#### Transience and security of tenure

Security of tenure has improved strongly; 63% of residents rate their security of tenure as better than in their previous home (Figure 1). Importantly, residents who felt least secure before moving to HF Glen Eden have experienced the biggest gains in quality of life since re-locating.

This improvement in security of tenure is also shown in the 55% of HF Glen Eden residents rate their security of tenure as very good or excellent in their present location compared with just 24% at their previous location.



Although transience itself was not the subject of this study it seems likely that families will benefit from security of tenure in a number of ways, including better education outcomes and greater willingness to invest time and effort in building strong communities.

#### Additional quality of life benefits

Quality of life gains are also being experienced in the following areas:

- Improved (or stable) educational prospects for children and young people;
- The suitability of housing in terms of capacity and layout;
- Expectations of future financial situation.

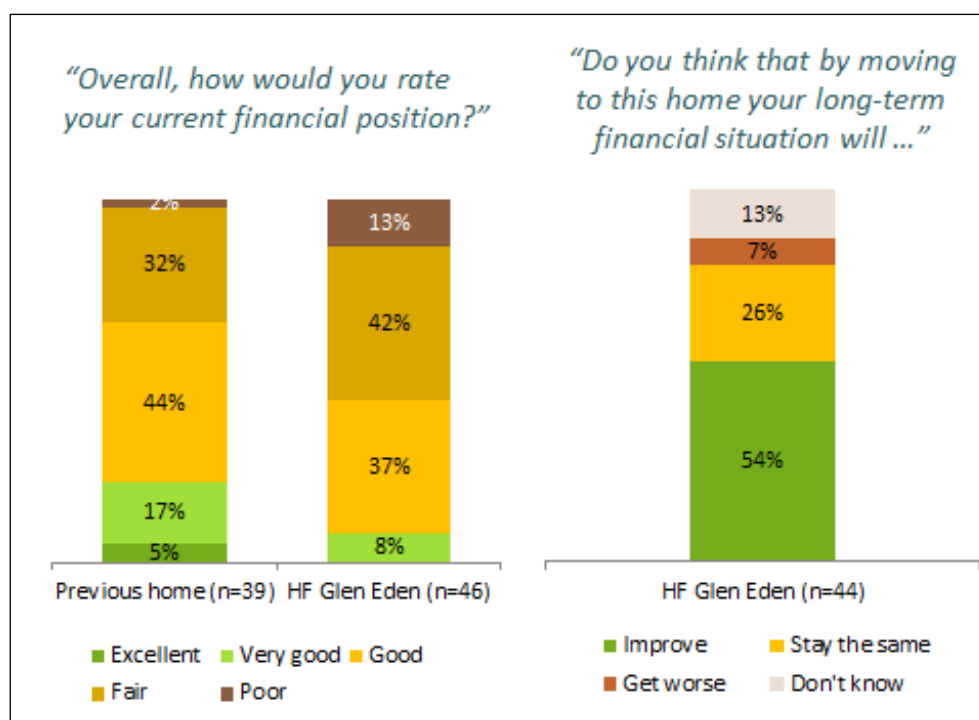
#### Financial pressures evident

An area where Quality of Life has not improved is the current financial circumstances of the households. The study demonstrated that households tended to be worse off financially than before they relocated, and are suffering increased financial stress.

The deterioration in a household's financial position suggests that while the programme offered by HF makes it possible for people to own their own quality homes, for many this is not achieved within current definitions of affordability. The trade-off, therefore, may be between short-term

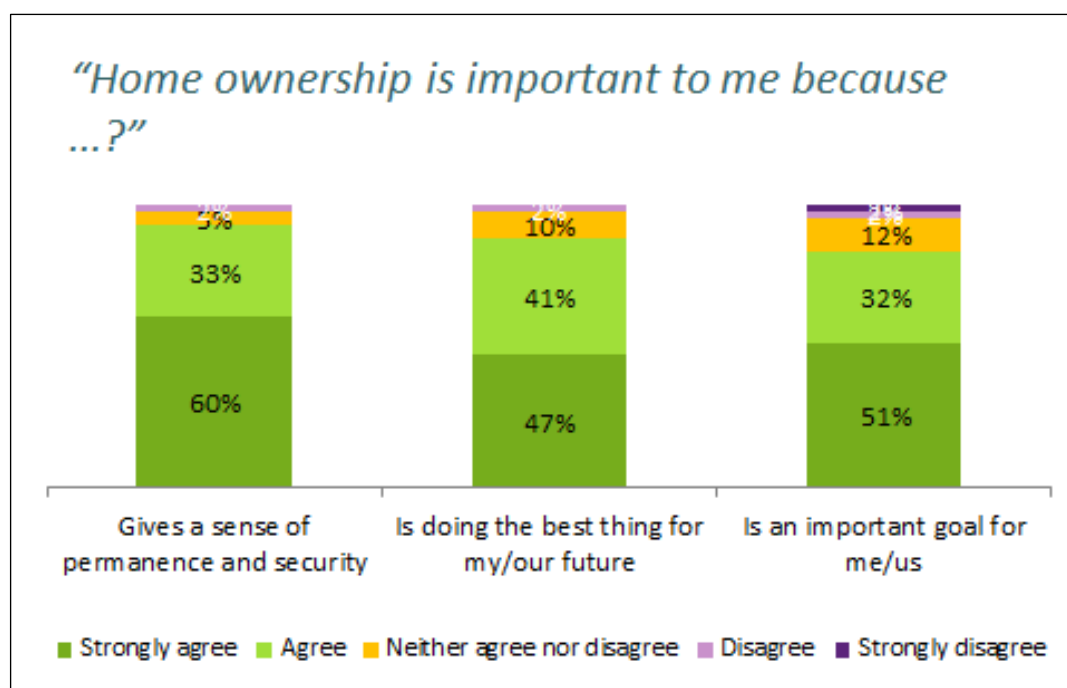
financial pain and the promise of longer term financial gain. This finding was not restricted to HF housing but included clients of other housing providers as well.

These findings suggest that further ways of reducing the financial burden of residents (owners and renters) should be considered.



### Path to ownership an important motivator

Ownership (including the opportunity to own) is important to residents at HF Glen Eden and while it might contribute to financial pressures, it acts as a motivator for debt reduction and saving. This motivating force was particularly apparent amongst Affordable Rental (“rent to buy”) residents whose financial circumstances made home ownership unobtainable in the foreseeable future. Home ownership also provides psychological benefits and a stake in the community.



### Community initiatives mitigate fear of crime

The location of HF Glen Eden in an area where crime is perceived as an on-going threat has contributed to concerns about safety. Community initiatives (such as the Neighbourhood Support programme) have been effective in mitigating much of the concern related to this perceived threat.

### **Why is the study important?**

The study has shown that housing is an important determinant of social outcomes, many of which have associated economic impacts. Improved health outcomes is one example of the economic benefits of healthy homes.

The literature review cited a Canadian study that linked a "Life Quality Index" to life expectancy and contribution to GDP. Other studies focus on the more immediate outcomes, demonstrated in the HF report, linking housing quality to improved health, education and employment outcomes.

The HF study shows the significant short term impact of better housing on the quality of life. If we extrapolate this over the lifetime of individuals then the benefits will become even more significant both socially and economically.

The HF study has shown that housing developments, done well, can be instruments of social change, effective beyond simply providing shelter for those in need. The case study on which these conclusions are based was characterised by mixed tenure, planned and integrated development which is unusual in the New Zealand context. The potential significance of the study findings warrants further investigation as to how transferable these results may be to other housing developments.

Would similar styles of development give similar results in different circumstances? E.g.

- Larger scale developments
- Different geographical locations
- Social housing
- Higher density

Answers to these questions would allow us to develop more general guidelines and potentially provide evidence for new funding initiatives in the provision of affordable housing such as Social Bonds. We envisage a time when Government makes funds available for housing conditional on providing measurable outcomes (e.g. improved quality of life) which can be translated into tangible economic benefits.

## 2.0 Background

### 2.1 The NZ Housing Foundation

The mission of the New Zealand Housing Foundation (NZHF) is *“to relieve poverty by providing or assisting the provision of affordable housing for low income persons and households in New Zealand.”*

The goals of the organisation are:

- To facilitate access to affordable and sustainable housing in mixed integrated communities for low income persons and households.
- Initiate, facilitate and create access to a greater range of affordable housing options.
- Facilitate and support the development of a robust Community Housing sector in New Zealand.
- Be the catalyst for the provision of housing development projects that promote innovative, sustainable housing solutions to meet affordable housing needs.

The NZHF has been involved in a number of developments which provide new, affordable, planned housing in NZ. It offers two approaches for helping low income households into home ownership:

- **“Affordable Rental”**: Under the affordable rental programme, the household rents the new home built by NZHF. The household then is able to clear debt and save towards a deposit enabling them to buy the home after 5 years.
- **“Affordable Equity”**: Under the "affordable equity" model a household purchases a share of the home to a level they can afford, while the NZHF have a passive share in the ownership of the house.

Both these schemes require that the households are first time home buyers, have a good credit record, have a regular combined household income that would allow them to pay market rent or pay a mortgage.

As a provider of new, planned, affordable housing, NZHF wishes to determine whether planned, affordable housing developments have an impact on a household's quality of life. The Glen Eden development on West Coast Road is being used as a case study to address these questions.

## 2.2 Research Objectives

The essential question for this research was whether the affordable housing and the planned nature of the development at Glen Eden has improved the lives of those who live there.

Addressing this objective requires a hypothesis (or a model) which explains how affordable housing is expected to improve residents' quality of life. It is important that the model acknowledge the particular context of the development at Glen Eden and the circumstances of the resident households.

The model will provide the framework for measuring, evaluating and monitoring how the NZHF policies and outputs contribute to quality life at the Glen Eden development. It is intended that the model will be transferrable to other NZHF developments.

The research will be used to:

- Provide evidence on the impact of the provision of planned, affordable housing on the lives of residents;
- Guide decisions around the nature of future developments through improving understanding of the impact of development features on the lives of residents.
- Provide a method and toolkit for monitoring quality of life in NZHF developments.



## 2.3 The NZHF Glen Eden Development

NZHF Glen Eden offers:

- 73 new homes;
- Stand-alone housing in a relatively new suburb;
- Moderate density (~400m<sup>2</sup> sections);
- A mix of double and single story homes
- A mix of two to five bedroom homes.

The majority of homes are owner occupied, though some have been purchased by providers of social and emergency housing. As such the development contains a mix of owner occupied and rented properties:

- 35 in shared ownership with NZHF;
- 12 in the Affordable Rental programme;
- 25 owned by other providers of housing<sup>2</sup>;
- 1 owned by a household who stair-cased to full ownership when they purchased the NZHF equity share.

A core part of the proposition at NZHF is that ownership (or having the opportunity to own in the future) contributes positively to quality of life. It is intended that in living in a mixed tenure community, tenants of social housing will recognise that the opportunity of homeownership also exists for them. Where appropriate, this opportunity is reinforced via the Auckland Community Housing Provider Network.

The NZHF has ensured that the development includes a range of people, including a range of ethnicities, ages and household composition.

Implementing the principles of 'Placemaking' is also a key component in the Housing Foundation's development planning processes.

Placemaking is the process of connecting urban design and the built environment with sustainable community development. This requires the long-term investment in the management of an integrated neighbourhood. Placemaking is vital when planning both the urban renewal of existing communities and the creation of new mixed tenure neighbourhoods.

Successful placemaking results in people feeling comfortable within their environment and connected to their neighbours enabling them to contribute to and invest their social capital into their community. Placemaking celebrates diversity and promotes connections; it is recognised as the framework for strong, healthy and stable communities.

The development offers housing for families via two level 3 to 5 bedrooms homes on Foundation Place, Titch Place, Pyramid Place, Newfound Way, and housing for the elderly via single and double level dwellings on West Coast Road. The housing for the elderly (14 dwellings), provided by Salvation Army, is situated on an no exit cul-de-sac extension of West Coast Road. This part development is connected to Pyramid Place via an footbridge over the Waikumete Stream. The remainder of NZHF

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<sup>2</sup> 14 are owned by the Salvation Army, 3 by Housing NZ, 3 by Habitat for Humanity, 2 by VisionWest Community Trust, 1 by Auckland Community Housing Trust and 2 by Monte Cecilia.

Glen Eden is home mainly to families with young and older children. Ethnicities include European, Pacific Island, Asian, Maori and other ethnicities.



### The Site

The site on which NZHF Glen Eden is located is a 5.7 ha long narrow greenfield site, west of Woodbank Drive (Glen Eden), gently sloping down towards a tributary of the Waikumete Stream which forms the western boundary to the site. The site is approximately 2 km west of Glen Eden town centre north of West Coast Road.

**Figure 2. Location of NZHF Glen Eden**



The NZHF development is the most recent of three adjacent residential developments on a triangular site bounded by the Western railway line, Seymour Road, and West Coast Road. Other

land uses in this triangle include commercial and industrial uses in the East and Parrs Park (open space) in the west. The commercial uses include “Studio West” one of the largest movie studios and TV production facilities in New Zealand.

The triangle lies between two significant streams which flow northeast from the Waitakere Ranges to the Waitemata Harbour. Prior to the residential developments the land was in use for horticultural production.

### **Politics**

The development is located just inside in the Waitakere Ranges Local Board area. Prior to the 2010 local government amalgamation, Waitakere City was the local authority. Going back even further, to 1989, Glen Eden Borough Council was one of 86 autonomous territorial local authorities in the Auckland Region.

The recently published Waitakere Ranges local board plan provides for an urban design strategy for Glen Eden town centre which is expected to experience rapid growth in the next 20 or 30 years. It also provides continued support to the Twin Streams project; a community development and environmental sustainability initiative inherited from Waitakere City Council. The project was initiated to manage risks of flooding from increased developments in the catchment areas.

### **Social Context**

A recent review of demographics<sup>3</sup> in the Parrs Park area by highlighted the following:

- High proportion of single-parent families (30% in Parrs Park, compared to 19% in the Auckland region)
- A high proportion of residents aged 15+ have no formal qualifications (30%, compared to 20% in the Auckland region).
- Unemployment in the area is 7.8% (compared to 5.6% for the Auckland region).
- Parrs Park tends towards a blue collar suburb, with a higher proportion of Clerical and Administrative, Technical and Trades, Labourers, and Machinery Operators and Drivers occupations than the Auckland region as a whole.
- This area has a relatively high proportion of Housing NZ households (28% of rental properties are owned by Housing NZ, compared to 15% in Waitakere as a whole)<sup>4</sup>.
- The New Zealand deprivation index for the area ranges between eight and 10 (where 10 is the most deprived).

NZHF Glen Eden is located in the catchment of the Twin Streams project, and has participated in a planting programme initiated as part of that project. The following is an extract from the Twin Streams project newsletter:

*The local community enjoyed a beautiful Saturday morning planting bee on the Waikumete Stream in August 2011. A big turnout of people planted 500 trees in the balmy conditions. The event was a collaboration between the NZ Housing Foundation, The Salvation Army and Project Twin Streams. The Salvation Army kindly provided kai for the planters, not to mention helping with the grunt work. Representatives from the NZ Housing Foundation came along*

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<sup>3</sup> Statistics New Zealand 2006 Census: Quick Stats for Parrs Park (the development falls within the Parrs Park Census Area Unit)

<sup>4</sup> Lifewise Family Services (2010). The Glen Eden Project – Phase 1 Report

*and passed on free native plants to many of the residents in the area. It was a great opportunity to meet the residents and find a thriving, closely connected community working together to protect their environment.*

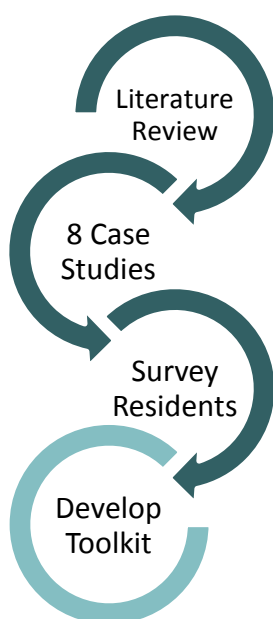
### Connectivity

The triangular site, as described earlier, is dissected by three streams which have led to three linear residential developments along the higher ground in between the streams. The construction of two cycle/pedestrian bridges across the western-most stream has improved access between the residential development and to the recreation facilities in Parrs Park. Good bus services run along West Coast Road and connect with the Glen Eden railway station services. Sunnyvale rail station is at the northern apex of the triangular site accessible via a walk/cycleway.

Glen Eden is described in the Waitakere Local Board Plan as “Gateway to the West Coast” which highlights the strategic potential of Glen Eden for the wider region.

## 2.4 Research Approach

The research has been carried out across three stages as shown in the diagram below. The 4<sup>th</sup> stage (development of a toolkit for on-going monitoring) has yet to be undertaken.



### Stage 1: Literature Review

The purpose of the Literature Review was to develop a hypothesis for the evaluation of the impact of affordable housing on quality of life.

A logic model framework was proposed which incorporated the causal reasoning behind the development’s specification and implementation, the mechanisms through which it is expected to operate, and the outputs it is expected to deliver.

Later stages of the research sought to refine and develop the framework.

The Literature Review itself is reported separately<sup>5</sup>.

### Stage 2: Case Studies

Prior to under-taking a survey of residents it was important to understand the experience in some detail. For this purpose eight residents living in the development were interviewed in depth. This ensured that aspects unique to the Glen Eden development were incorporated into the research.

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<sup>5</sup> CityScope Consultants in association with Nexus Research (2012). “Social benefit of living in New Zealand affordable housing within a planned integrated neighbourhood.”

The key objectives of Stage 2 were:

- Understand the experience of residents living in NZHF Glen Eden; in particular:
  - How life has changed since moving to Glen Eden;
  - Which of these changes are associated with moving to the development (rather than other life changes unrelated to housing).
- Identify the benefits and disadvantages of living in the Glen Eden development;
- Indicate what could be modified to further improve quality of life;
- Refine the model to incorporate the particular context and experience of the NZHF development at Glen Eden.

### Stage 3 Surveying Residents

The purpose of this stage of the research was to:

- Measure quality of life;
- Identify if quality of life has changed since moving to Glen Eden;
- If quality of life has changed, to:
  - Identify how it has changed,
  - Measure how much it has changed
  - Identify the key factors driving the change in quality of life;
- Indicate what could be modified to further improve quality of life;
- Finalise the model for use in future monitoring.

Measuring change, by definition, requires comparison between the current living situation and another living situation. In this research, the main comparison will be a comparison of life in the Glen Eden development with life in the previous home.

An understanding of quality of life at NZHF Glen Eden was assisted by broader comparisons:

- Comparisons were made with a limited number of 2012 Quality of Life<sup>6</sup> survey questions (see below for further detail on this survey). This allowed us to compare quality of life within the development with quality of life of residents of the Waitakere Ranges Local Board.
- Residents of some neighbouring streets (Albionvale Road, Tuck Nathan Drive, Haki Wihongi Place) were included in the research to enable comparison of life in an adjoining catchment with life at NZHF Glen Eden. This area was chosen as a comparison for NZHF Glen Eden as it is made up of two distinct areas or communities: an area comprised entirely of Housing NZ properties (in the North), and private homes (owner occupied and tenanted) in the south. This offers the opportunity to compare life at NZHF Glen Eden with an “unblended” community of privately owned homes and tenants of social housing. Further detail on the Albionvale catchment can be found on the following page.

### Quality of Life Project

- The Quality of Life Project was initiated in response to growing pressures on urban communities, concern about the impacts of urbanisation and the effects of this on the well being of residents.
- The key purpose of the Project is to provide information to decision-makers to improve the quality of life in major New Zealand urban areas.
- A core part of the project is the biennial Quality of Life survey which measures the perceptions of over 5,000 residents living in six of NZ’s largest cities. The survey includes a variety of issues including perceptions of quality of life and health, crime and safety, social issues in their local area, public transport, community and social networks.
- Quality of Life survey results for Auckland are provided by Local Board including the Waitakere Ranges Local Board, in which NZHF Glen Eden is located.

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<sup>6</sup> <http://www.qualityoflifeproject.govt.nz/>



## Albionvale Road Catchment

Figure 3. Albionvale Road



This catchment comprises of two distinct areas: an area of Housing NZ properties (indicated by red line in Figure 3), and privately owned medium intensity housing (indicated by the green line).

### Housing NZ Owned Properties

This is an area of approximately 70 single and double level, fully detached homes (see photo's below). The development is of moderate density with section sizes in the range of 330 to 400m<sup>2</sup>.

The scale of the development and style of housing is not dissimilar to the NZHF Glen Eden development.

### Privately Owned Properties

This is a medium intensity development of approximately of 90 units. The units are two and three storey three bedroom houses (both terraced and detached types). The average section size is 110 m<sup>2</sup>, with minimal privately owned gardens. Two pocket parks within the development provide access to a garden area and additional light and space for residents. Some properties have front access and attached garages, while others have remote parking. Heights of properties, materials, finishes and design features (shutters and screens etc) differ giving the streetscape variety. The development was designed with both owner occupiers and investors in mind. Consequently residents are owner occupiers and tenants.

Figure 4. Housing NZ owned properties



**Figure 5. Privately owned properties**





## 2.5 Research Method

### Stage 2: Case Studies

Eight one hour face-to-face interviews were undertaken with residents (individuals and couples) as follows:

- 2 with Affordable Rental residents;
- 3 with Affordable Ownership residents;
- 3 with residents of other providers.

A range of ethnicities, ages and household sizes were included. Respondents were:

- mostly European or Pacific Island, though some were from another culture;
- from households with no children (n=2 households);
- from family households with children ranging in age from toddler age through to young adults (n=6 households);
- household sizes ranged from one person through to seven people;
- those interviewed ranged in age from their 30s to 65+.

Interviewing was conducted 23<sup>rd</sup> September to 3<sup>rd</sup> October 2012.

### Stage 3: Surveying Residents

All households in the catchment area (see the following map) were invited to take part in the research. Within each household, the owner(s) or, in the case of rental properties, a person whose name is on rental agreement, were asked to complete the survey. Participants were able to take-part either online or via a paper survey form posted to their address (along with a postage paid return envelope).

In the case of NZHF Glen Eden:

- There were a number of reminders to each address using a variety of methods: two postal/email reminders, door-to-door contact, and phone calls to non-respondents.
- 64% of those invited participated in the research resulting in N=47 surveys completed.

Comparison group: Albionvale Rd to Tuck Nathan Drive

- One postal reminder was distributed.
- N=23 interviews were completed.
- We estimate the response rate to be 14%.

Interviewing for this stage was initiated on 15<sup>th</sup> November 2012 and concluded on the 7<sup>th</sup> January 2013. Most responses were obtained by the 14<sup>th</sup> December 2012. An incentive of a prize draw for one of four supermarket vouchers (\$100) or a Christmas hamper (\$100) was offered to those who completed forms.

**Table 1. Number of Respondents by Programme/Housing Provider**

	Number of Respondents	Number in NZHF Glen Eden
<b>Affordable Rental programme</b>	9	12
<b>Affordable Equity programme</b>	20	35
<b>Other housing providers</b>	17	25
<b>Unknown</b>	1	

Responses from residents of NZHF Glen Eden were post-weighted to be representative in terms of programme membership or other housing providers.

Responses were obtained from residents of the following other housing providers:

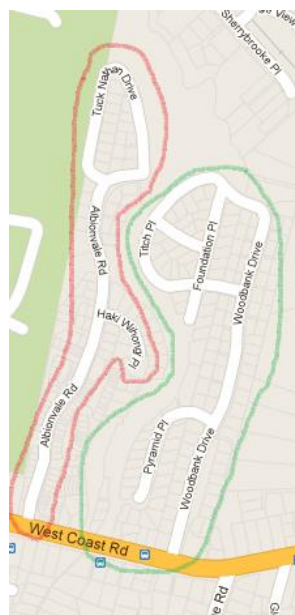
- Salvation Army
- Habitat for Humanity
- VisionWest Community Trust
- Auckland Community Housing Trust
- Monte Cecilia Housing Trust

No responses were obtained from the tenants in Housing NZ properties.

The following map shows the catchment of the research:

- The area bounded in green shows the NZHF Glen Eden
- The area bounded in red is the comparison area which (labelled Albionvale throughout this report).

**Figure 6. Catchment for the Research**



## 2.6 Limitations

Some limitations with this research are acknowledged.

Demonstrating that affordable, quality housing has improved quality of life is challenging. Many factors influence quality of life independent of housing. As such our approach has been to build a model based on extensive literature which provides an explanation for the causal mechanisms, rather than to attempt to prove causality.

A key part of the research is to demonstrate a change in quality of life. This requires comparison of the current experience to another experience. We have used residents' past living environment as the basis for comparison. However, participants were aware that the research was for the NZHF and may have therefore been predisposed to giving favourable answers about life in the development. We attempted to mitigate this potential source of error by providing assurances of confidentiality to participants in our capacity as independent consultants.

Other limitations of the approach are the reliance on resident memory (most residents have been in the current location for 2-3 years) and the likelihood of "post-decision" rationalisations.

The comparison with residents in the Albionvale area also has limitations. While residents of the Albionvale catchment are in the same neighbourhood and the area offers an "unblended" comparison with NZHF Glen Eden (certainly in terms of Housing NZ / non Housing NZ), it will be difficult to conclude that observed differences are a result of the design of NZHF Glen Eden, or the planned approach to the development, given the presence of other exogenous factors.

For example:

- The design of the private owned property is also very different, particularly in relation to the amount of space available for tenants and the level of privacy.
- The design and size of sections of the privately owned properties on Albionvale Rd is likely to have attracted different household types, such as fewer large families and possibly more shared or flatting tenancies.
- The privately owned property includes tenants who may be more transitory and may have less of a "stake" in the community.
- The capacity and circumstances of the Housing NZ tenants will be very different from residents of Albionvale.
- Housing NZ tenants will not necessarily have chosen to live in this area (it may have been the only property available to them).

Additionally, a low response rate from the Albionvale catchment resulted in a relatively small number of surveys being returned by residents. A sample size of 23 does not allow us to provide a level of confidence with which we believe our sample represents the population. However, we can say that all households in the catchment were given the opportunity to take part in the research. As such we have no reason to believe that our data from Albionvale is dissimilar from the overall population of the catchment.

## 3.0 Findings

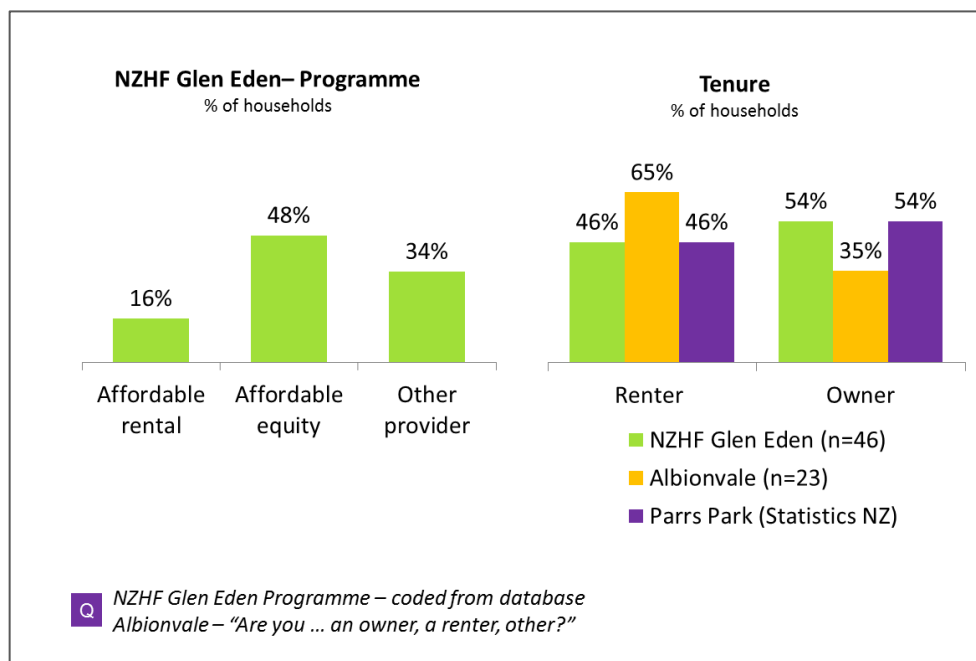
### 3.1 The Residents

This section profiles residents of NZHF Glen Eden and compares them to residents of the Albionvale area. Where possible, comparisons have also been made with residents of Parrs Park<sup>7</sup> (Statistics NZ). This section provides context for the interpretation of later findings.

The following three figures profile the sample in terms of:

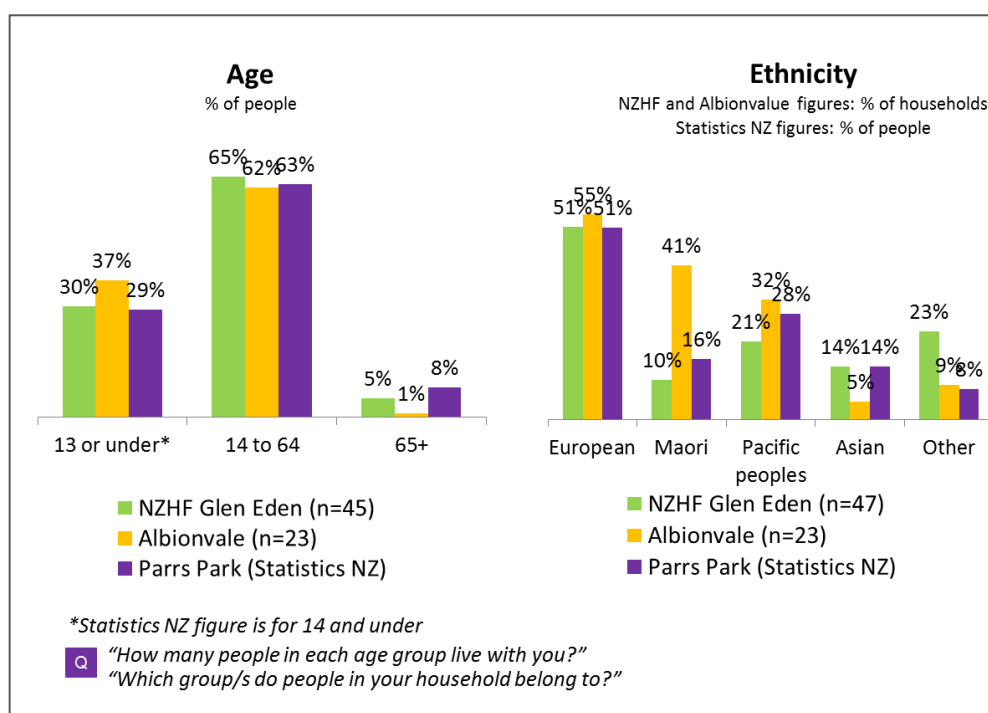
- NZHF programme and tenure;
- Age and ethnicity;
- Employment and Household size.

**Figure 7. Tenure**

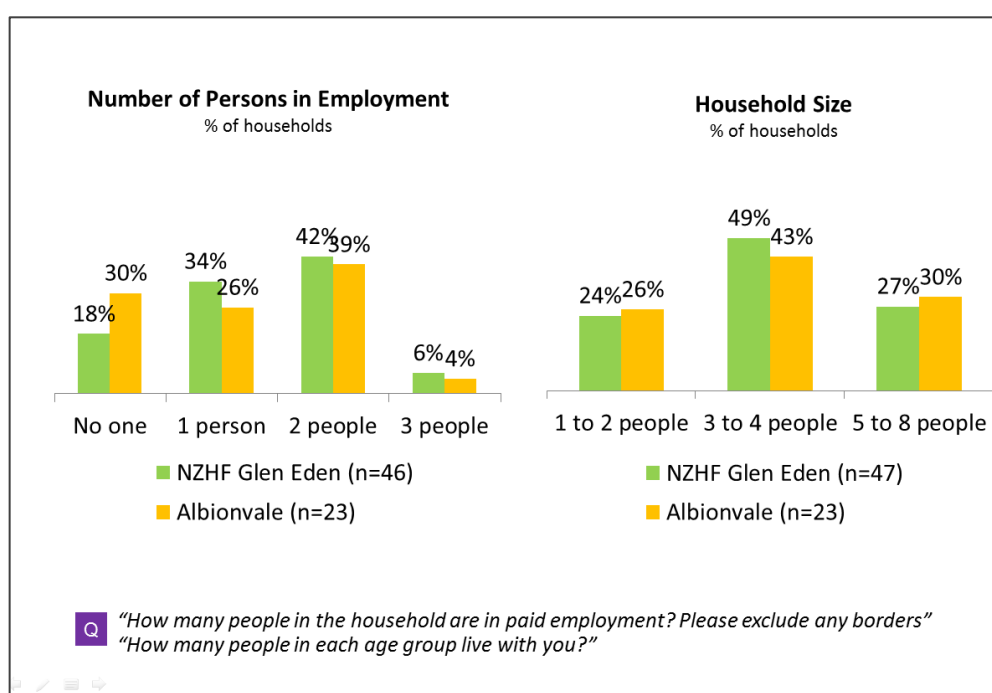


<sup>7</sup> Parrs Park is the Census Area Unit in which NZHF Glen Eden is located.

**Figure 8. Age and Ethnicity**



**Figure 9. Employment and Household Size**



Based on these figures, the age and household structure of the samples are broadly similar. The major contrasts lie in the greater proportion of Māori and Polynesian residents sampled in

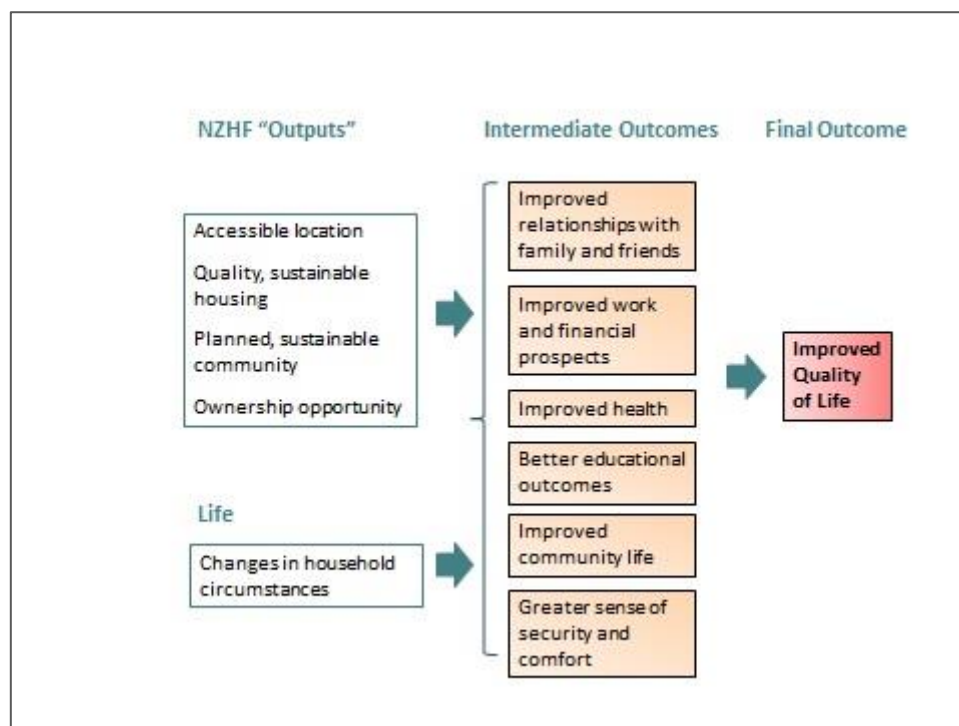
Albionvale, the greater share of renters there, and a greater share of households in which there are no income earners.

It is to be expected that apparently greater disadvantage (lower employment and ownership) in the Albionvale sample will lead to some differences in quality of life.

### 3.2 A Framework for Understanding the Impact of Housing on Quality of Life

A model which defines how quality of life is believed to be impacted by housing which was developed on the basis of the Literature Review and refined in line with findings from the qualitative and quantitative stages of the research. This model is shown below.

**Figure 10. The Impact of Housing on Quality of Life**



The intent of the model is to make explicit the relationship between the NZHF outputs at the Glen Eden development and their anticipated outcomes. The model seeks to outline the causal mechanisms that explain how housing provision impacts quality of life.

The particular form of housing provision we are interested in is that provided by the NZHF programme. This is represented in the NZHF Outputs in the model. Collectively these describe the tangible offering (e.g. accessible location, quality housing, ownership opportunity) and the policies aimed at creating a mixed, sustainable community.

While many of the other housing providers at NZHF Glen Eden offer only rental accommodation, a core part of the proposition is that ownership (or a having the opportunity to own) contributes positively to quality of life.

Life, as they say, "happens". Thus it is important that the model recognises and reflects that other changes in life (e.g. job loss through poor economic conditions, decline in health or mobility, change in household structure, relationship breakdown etc) impacts quality of life irrespective of where a person or household lives. When we examine the impact of NZHF's outputs on a household's quality of life we must be aware (as much as possible) of other changes than may be positively or negatively impacting on it.

The development at Glen Eden was intended to deliver two key outcomes to residents:

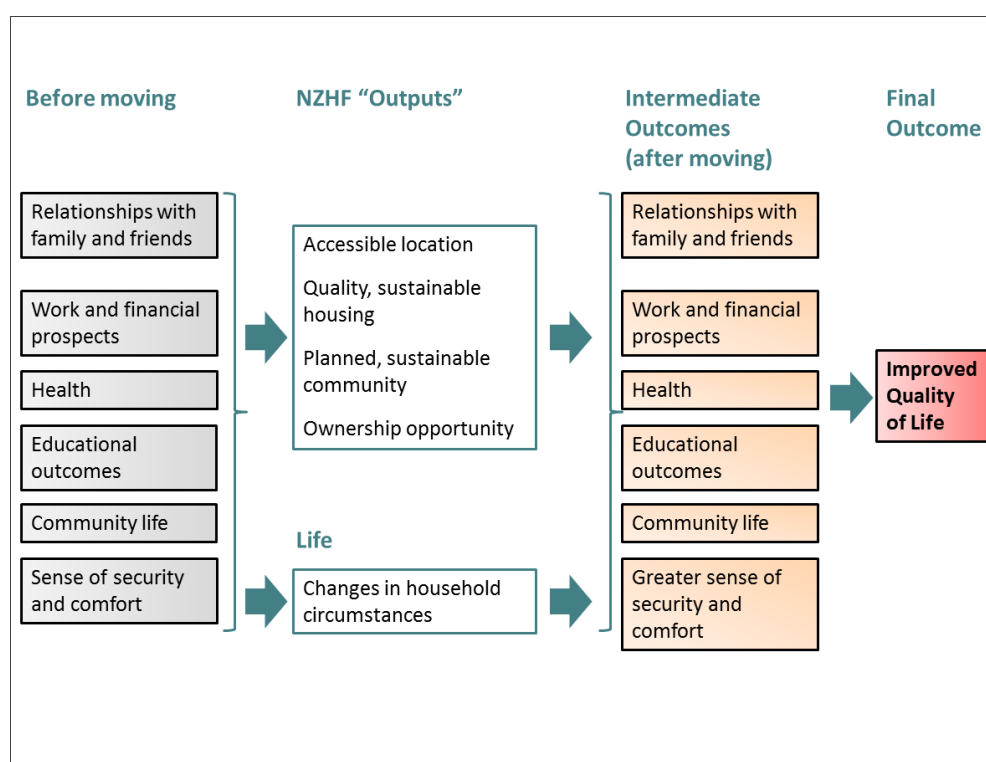
1. Improved Quality of Life;
2. Improved experience of Community Life.

While improved Community Life is a desired and planned outcome at Glen Eden in its own right, it is also a means by which Quality of Life may be improved. As we wish to understand what contributes to Quality of Life (our Final Outcome) we have classified Improved Community Life as an Intermediate Outcome.

### Measuring the Impact of Housing on Quality of Life

In order to understand the influence of the NZHF programme (the Outputs) on progress towards a better quality of life (a focus on improvement rather than a particular “end state”), the model needs to be further developed (Figure 11). This is done by identifying the state of Intermediate Outcomes before the person or household moved. The issue is to establish whether residents believe quality of life has improved with the move into NZHF Glen Eden, and to establish how the intermediate outcomes have contributed to this change.

**Figure 11. Measuring the Impact of Housing on Quality of Life**



In this way, the model allows us to evaluate resident experience in two ways:

1. In absolute terms i.e. their level of satisfaction in the development and in their previous home (sections 3.3 and 3.4);
2. In relative terms i.e. has the experienced improved, stayed the same or declined (section 3.5).



### 3.3 Final Outcome – Quality of Life

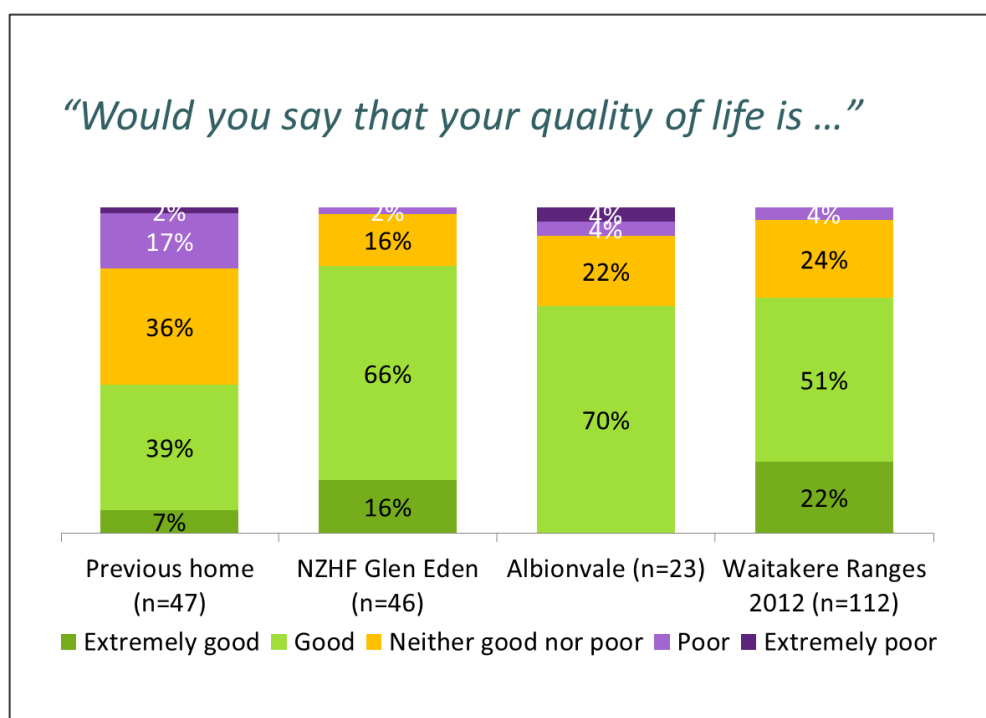
Quality of Life is a complex and multi-dimensional phenomenon which can be measured in a variety of ways. Our approach has been to ask residents' to rate their quality of life.

The approach taken in the interview was to explore first the various Intermediate Outcomes that the model indicates are associated with quality of life and then, seek a rating on current quality of life.

For reporting purposes, however, we commence with the overall rating of current quality of life, and then examine how the different intermediate outcomes were perceived as changing.

Figure 12 shows how residents rate their quality of life (now and in the past) along with ratings of residents in the neighbouring catchment (Albionvale). Also shown are ratings from the 2012 Quality of Life Survey by residents of the Waitakere Ranges Local Board.

**Figure 12. Quality of Life**



The responses indicate that residents of NZHF Glen Eden have experienced a significant improvement in their quality of life, and that as a result they tend to enjoy a better quality of life than their neighbours in Albionvale.

Combining both good and extremely good categories suggests a 36 point gain in quality of life across the sample (from 46% to 82% of households). There is a 12 point “advantage” over Albionvale resident households (82% compared with 70%), made the more definitive by the fact that no Albionvale respondents were prepared to rate their quality of life as “extremely good”.

Some 73% of residents drawn from the Waitakere Ranges Local Board area at large, report a positive view of quality of life. There is a 9 point advantage in quality of life at the NZHF Glen Eden over the level prevailing across the wider community.

### **3.4 Intermediate Outcomes**

The Intermediate Outcomes are the aspects of life expected to respond to improved housing and thereby lead to an improvement in residents' quality of life. In this section we will consider residents' experience across a number of aspects that contribute to each of the Intermediate Outcome areas identified in the model

#### **3.3.1 Relationships with Friends and Family**

Secure, quality housing has the capacity to contribute to relationships, both within the household, and with friends and family living elsewhere.

It can improve intra-household relationships through reducing stress associated with over-crowding and poor housing quality. Below are three examples of the way in which in relationships within the household were noted in the in-depth interviews to have improved at Glen Eden:

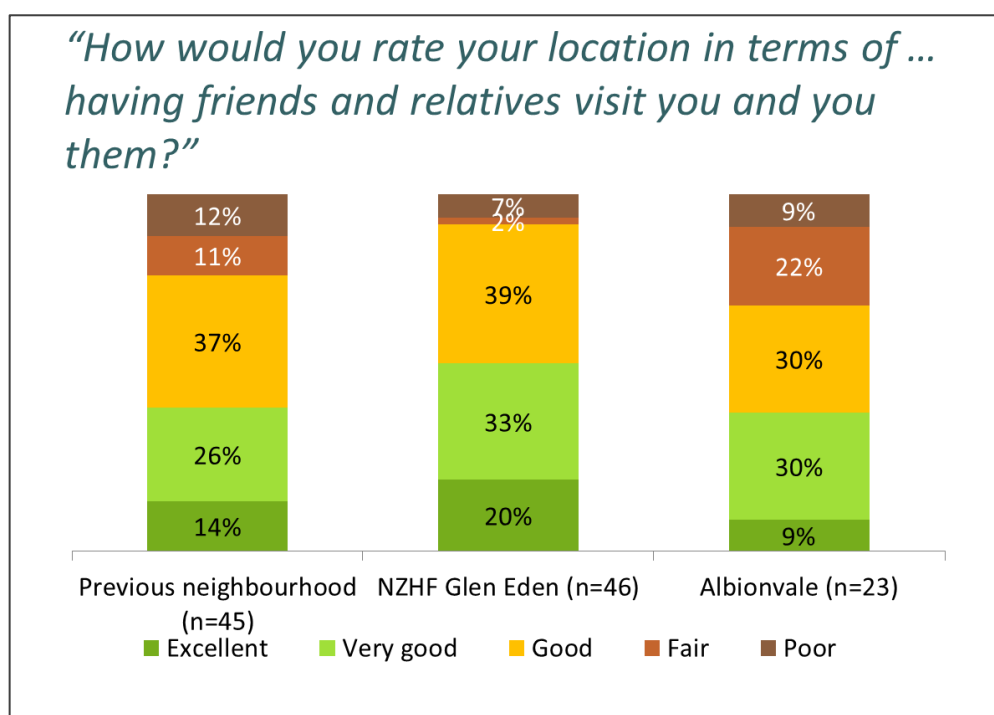
- Fewer arguments between siblings due to increased space and more privacy and consequently a reduction in parental intervention (and stress levels) in dealing with sibling friction.
- Less use of living areas for sleep, resulting in teenagers having more sleep (not woken early in morning).
- Provision of housing has led to changes in household structure so that residents are no longer living with wider family (especially where this was creating relationship difficulties and over-crowding issues).

During the qualitative stage, some households in NZHF Glen Eden did not report any changes in relationships within the household, and for these people the idea that housing might impact family relationships seemed a strange idea. Nonetheless, it would have been useful to explore this aspect of quality life in the quantitative stage. Unfortunately, given space constraints within the questionnaire, this line of questioning was omitted.

The role of dwelling location in maintaining relationships with family and friends outside the household was also identified as potentially important to quality of life. Where relocation prevents the maintenance of close relationships with others, the result can be an increased sense of isolation.

Figure 13 shows the extent to which residents are able maintain their wider network with family and friends and compares this with their previous home and to residents of Albionvale.

**Figure 13. Relationships with Friends & Family**



The findings indicate an improvement for some residents since moving to the NZHF Glen Eden. This suggests that the development is, for the most part, attracting people who have local connections and that the availability of affordable housing in the area has allowed people to maintain or strengthen relationships with friends and family.

Residents of the Albionvale area rate this aspect of their location less positively, with 31% saying that visitation with friends and family is fair or poor. This may be the result of a less choice in housing location amongst Housing NZ tenants living in the area.

### 3.3.2 Work and Financial Prospects

This section considers the working and financial position of residents.

#### Employment Stability

The impact of housing on employment stability is well documented within the social housing context. Quality housing with secure tenure has been associated with improved participation in employment and greater employment stability.

Residents were asked, *“since moving to this house, have the income earners been in steady employment?”* Answers to this question were compared to the level of stability experienced in their previous home. The intention was to assess the relationship between secure tenure and participation in the workforce. The hypothesis was that secure tenure would lead to greater stability in employment.

The findings were surprising:

- Since moving to NZHF Glen Eden employment stability appears to have deteriorated. There may be several reasons for this. One is that relocation may have affected employment, or coincided with a change in employment circumstance. Another is that the comparison is between a two to three year period at the current address and the last year at the previous address. A third is that the development of NZHF Glen Eden has coincided with a period of low growth and employment contraction generally. People on lower incomes (implicitly the target group for NZHF programme) may have been worst affected.

It is concluded, then, that intervening circumstances may have acted against greater employment stability in some circumstances, so that it cannot be concluded from the data available that housing gains are translated directly into employment stability.

- Of those households whose income earners had not been in steady (n=9<sup>8</sup>), n=4 had an increase in household income and n=4 had a decline in household income since moving to NZHF Glen Eden. This demonstrates that a decline in employment stability does not always result in a decline in financial circumstances over the longer-term.

There are a number of ways household income could improve while employment stability appears to decline e.g. a partner previously looking after small children re-enters the workforce; an income earner loses their job but finds another job which is more highly paid etc.

This finding suggests the need to review our assessment of the relationship between employment stability and secure, quality housing, including clarification of the construct “employment stability.” In doing this we will need to consider lifecycle decisions (women leaving the workforce to have and care for children, and women re-entering the workforce), voluntary “unemployment” (e.g. career changes), or a change in employment circumstances such as setting up a business or becoming a

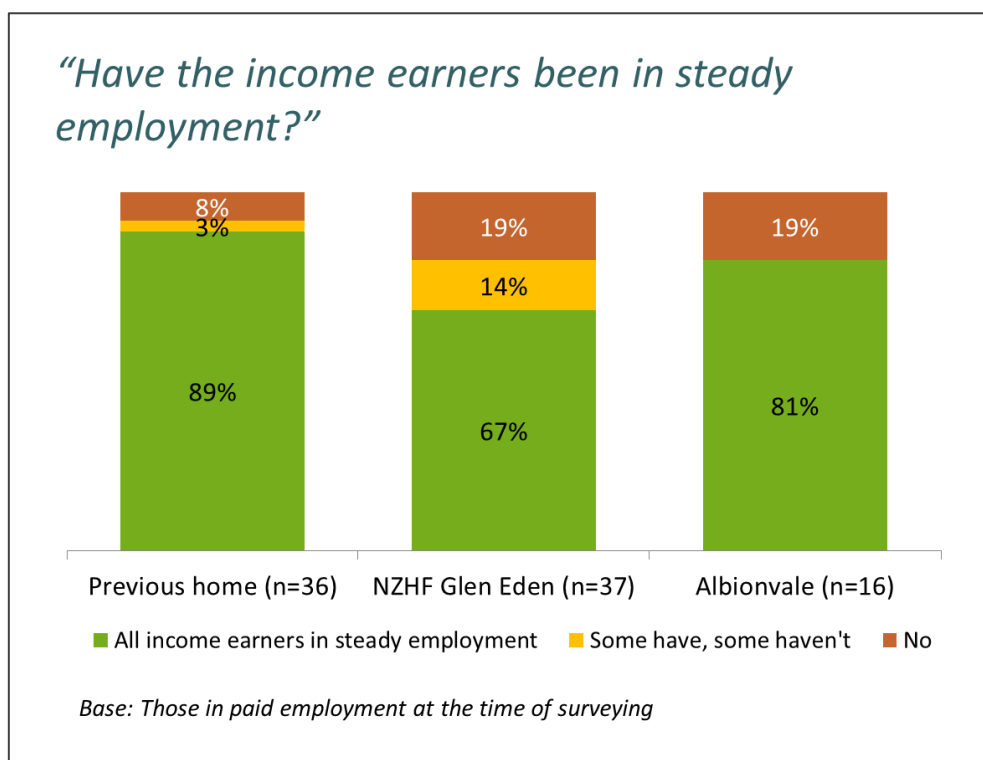
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<sup>8</sup> N=12 households had not had all income earners in steady employment since moving to NZHF Glen Eden but only 9 of these provided household income details.

contract worker. Other factors such as the number of people required to work are also relevant.

We should also recognise that housing will have little opportunity to improve employment stability amongst people whose employment is already stable.

**Figure 14. Employment Stability**



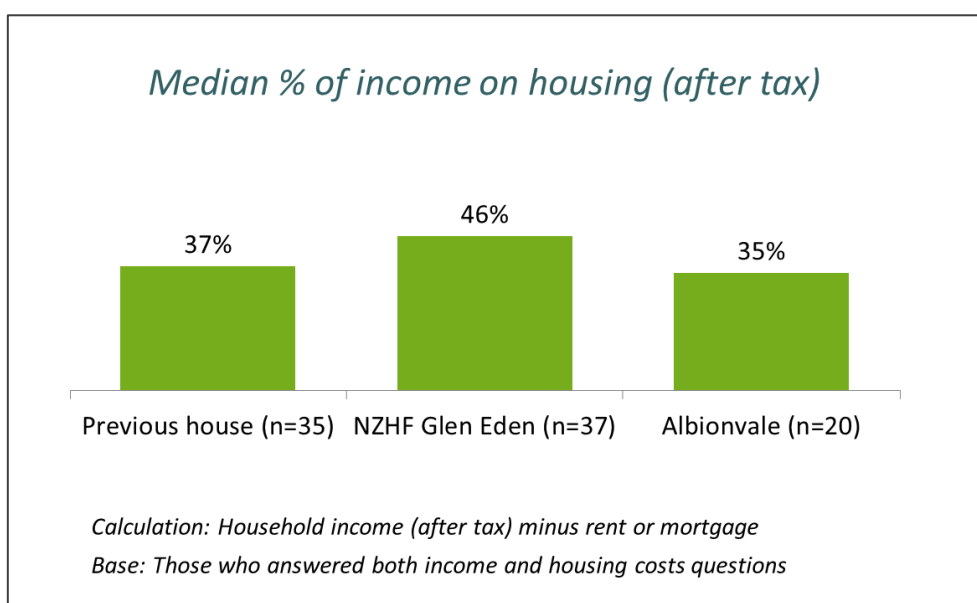
### Percentage of Income on Housing

Affordable housing is important for people’s quality of life. High housing costs relative to income are often associated with financial difficulty, leaving households unable to meet other essential needs. This is particularly the case for lower income households.

Figure 15 shows that those living in NZHF Glen Eden spend more on housing than they did when living in their previous homes. Those living in the adjoining neighbourhood spend less<sup>9</sup>.

<sup>9</sup> This analysis is based on those who supplied answers for housing costs (rent or mortgage) as well as household income. Those who did not supply this information have been omitted from the analysis. Interrogation of answers to these questions resulted in two cases being removed from analysis. Retained figures range from 14% to 138% across the NZHF development and the Albionvale catchment.

**Figure 15. Percentage of Income on Housing (median)**



While housing costs have increased for 73% of households, household income has also increased for 59% of households. Nevertheless, there are some for whom housing costs have increased while income has remained constant or decreased (26% spend more on housing but have the same or lower income).

**Table 2. Change in Housing Costs and Income**

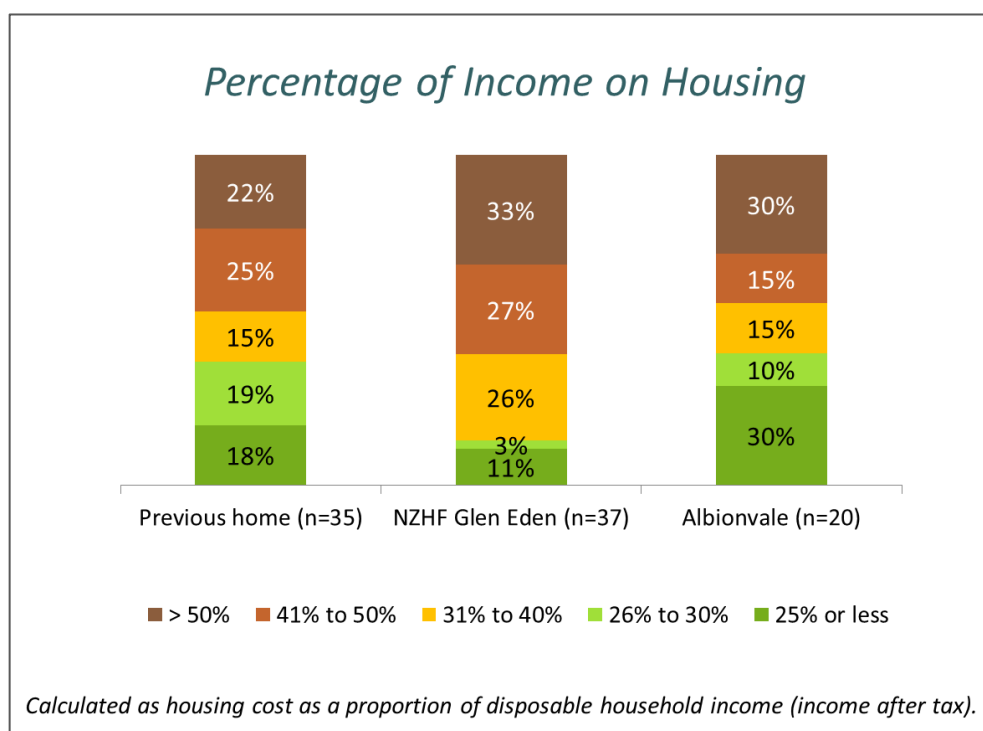
	Housing costs decreased or the same	Housing costs increased
Income the same or lower	15%	26%
Income increased	12%	47%

*Read: 26% of households experienced an increase in housing costs while their income remained the same or lower.*

While moving to NZHF Glen Eden the development is presenting the opportunity for people to live in good quality homes, and, for many, an opportunity to own, it is not providing access to lower cost housing. However, these figures do not take into account a likely decrease in spend on heating since moving to NZHF Glen Eden.

The figure below shows the distribution of spend on housing as a percentage of income.

**Figure 16. Percentage of Income on Housing (Distribution)**



*Read: 11% of households living in NZHF Glen Eden spend 25% or less of their disposable income on housing.*

One measure of housing affordability is the proportion of people spending in excess of 30% of their disposable income on housing. Given this threshold, the above figures are somewhat daunting, with 86% of resident households spending in excess of 30% of their household income on housing. The percentage of households spending above the 30% threshold has clearly increased since moving to NZHF Glen Eden, but it should be noted the prior to moving 63% were above the 30% threshold. This indicates that while renting (previous home) housing costs were still high. In Albionvale the figures are also very high with 60% of households spending in excess of 30% of their income on housing.

The Social Report (2009)<sup>10</sup> provides a NZ wide comparison:

- 27% of NZ households spend in excess of 30% of their disposable income on housing
- 35% of those in the 25 to 44 age bracket live in households where spend on housing exceeds 30% their household disposable income.

Ideally we would like to compare affordability at NZHF Glen Eden with other first time buyers in the Auckland market. However we have not been able to find this direct comparison.

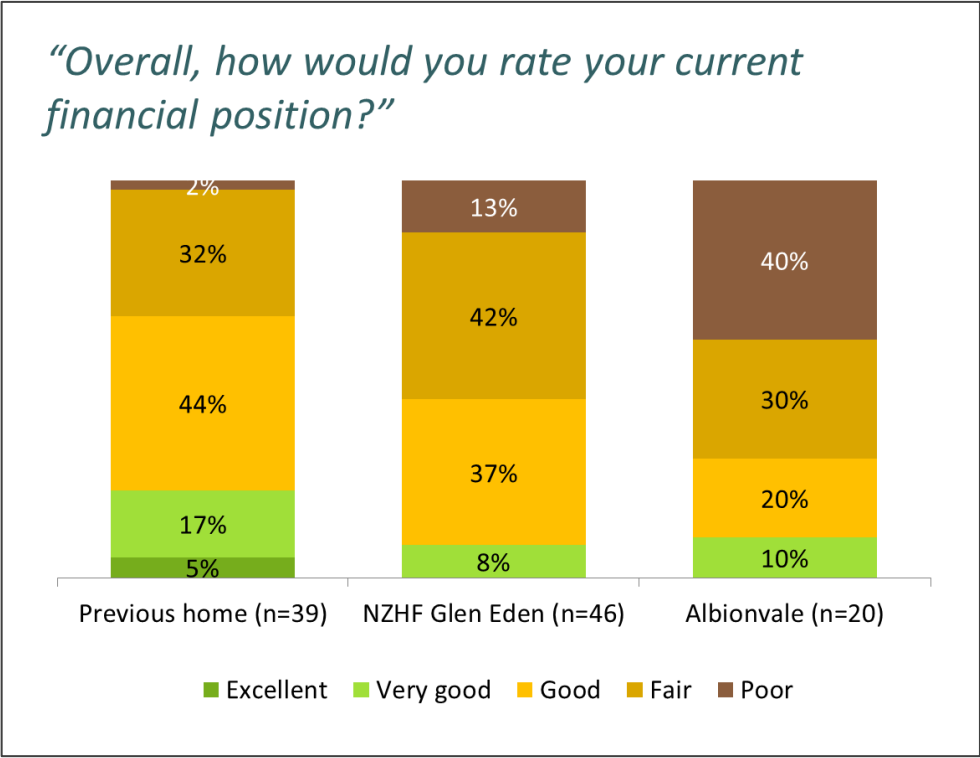
Nevertheless, the above figures are concerning as the spend on housing is likely to be impacting the households ability to meet other needs.

<sup>10</sup> <http://socialreport.msd.govt.nz/economic-standard-living/housing-affordability.html>

**Financial Position**

Figure 17 indicates how residents feel about their financial position, now and in the past.

**Figure 17. Financial Position**



Residents of NZHF Glen Eden feel that their financial position has deteriorated since moving there. Only 8% of residents of NZHF Glen Eden rate their financial position as good or excellent, compared with 22% rating it fair or excellent at their previous location. Thirteen percent rate it as poor now, compared with 2% previously. Again, this may reflect changes in economic circumstances that are independent of the move, although it is consistent with the increased spend on housing reported earlier.

However, the financial position of residents of NZHF Glen Eden still appears far better than that of the Albionvale Road residents, where 40% rate their position as poor.



**Financial Stress**

An important consideration is the extent to which a household’s financial circumstances contribute to on-going stress. The question emerges, how often would we expect people to experience financial stress? For very high income households, the answer might be never. For low income household though we would expect some stress at least some of the time.

Figure 18 shows the frequency with which residents experience financial stress now compared to previously. In interpreting the results our view is that “sometimes” (or less frequently) is acceptable, but “most of the time” or “always” is not.

**Figure 18. Frequency of Financial Stress**



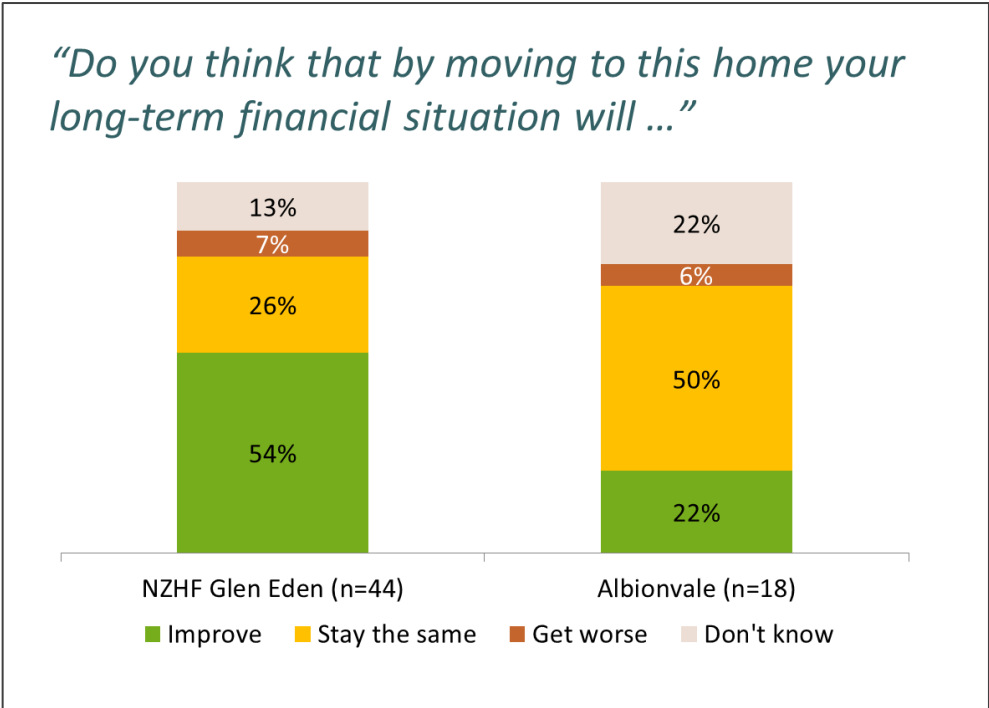
Not surprisingly, given the challenges some households are facing in terms of housing costs and the suggestion of a deteriorating financial position for many, financial stress has increased since moving to NZHF Glen Eden. Currently, 37% of resident households experience financial stress always or most of the time, compared to 28% previously. Those living in Albionvale also experience frequent financial stress (48% reporting that they experience financial stress most of the time or continuously).

This sense of increased financial stress may also be a reflection of increased financial obligation (they now have a mortgage) or, in the case of Affordable Rental residents, the change required in their financial behaviour (more disciplined budgeting, debt reduction) in order to realise the home ownership opportunity.

**The Financial Future**

One aspect of the owning a property is that as it increases in value, the owners accrue wealth. The prospect of increased wealth arising from ownership should positively influence the sense of security and expectation of an improved quality of life. In addition, people may feel that the security and benefits of ownership outweigh any increase in short-term financial hardship. This is supported by the finding that 90% of residents regard the decision to move to the NZHF Glen Eden as good or very good decision; no one regards it as a bad (or very bad) decision. This is reflected in residents’ expectations about their future financial position (Figure 19).

**Figure 19. Expectations of long-term financial position**



Despite the challenges facing residents at the moment, their expectations are relatively positive. Some 54% expect their long-term financial position will improve as a result of moving to NZHF Glen Eden. This contrasts with Albionvale respondents, only 22% of whom believe their long-term financial position will improve.

**Financial Behaviour**

NZHF has provided affordable, quality housing in three ways at Glen Eden:

- 1) Through helping working people on low incomes into quality affordable housing;
- 2) Through helping working people with debt into quality affordable housing;
- 3) Through providing dwellings to agencies that offer emergency and social housing.

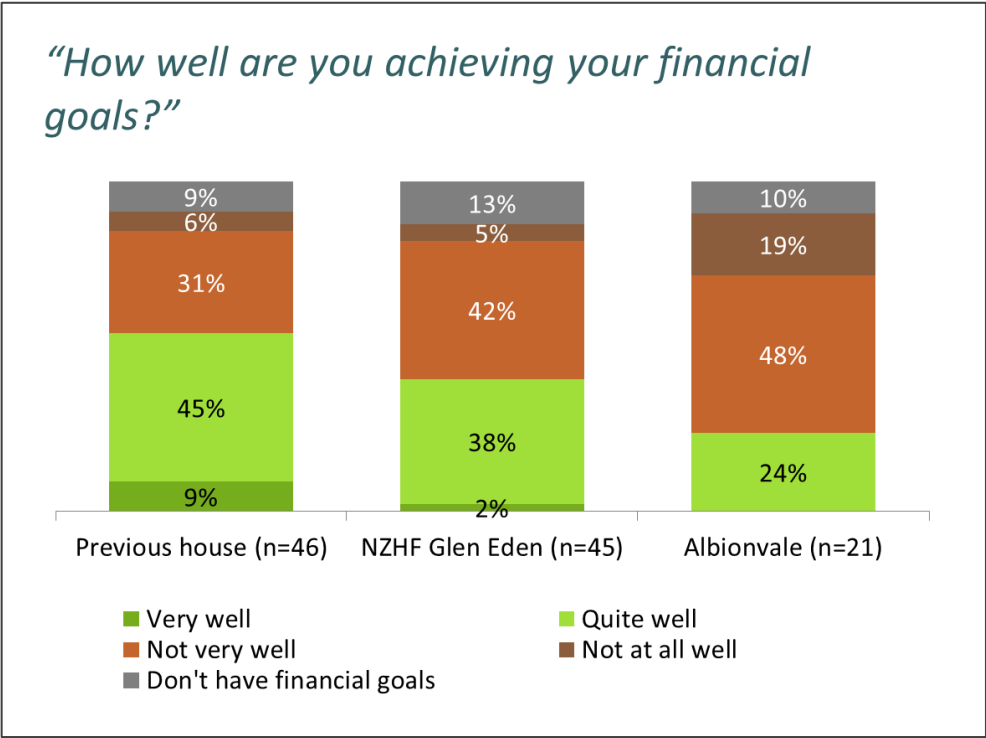
For some residents, more disciplined financial behaviour is required in order to achieve home ownership. NZHF offers budgeting advice, particularly to those in the Affordable Rental programme, to help people set goals and change their financial behaviour.

During the in-depth interviews two households discussed the impact of this budgeting advice on their financial behaviour. One highly valued the help provided in establishing a financial plan and the on-going regular contact which helped them stay mindful of their plan. The other household had one only meeting which they felt provided a useful reminder of good principles, rather than as providing information which changed their behaviour.

Figures 20 and 21 identify

- Whether financial goals are being achieved by residents;
- Their methods of saving.

**Figure 20. Achieving Financial Goals**

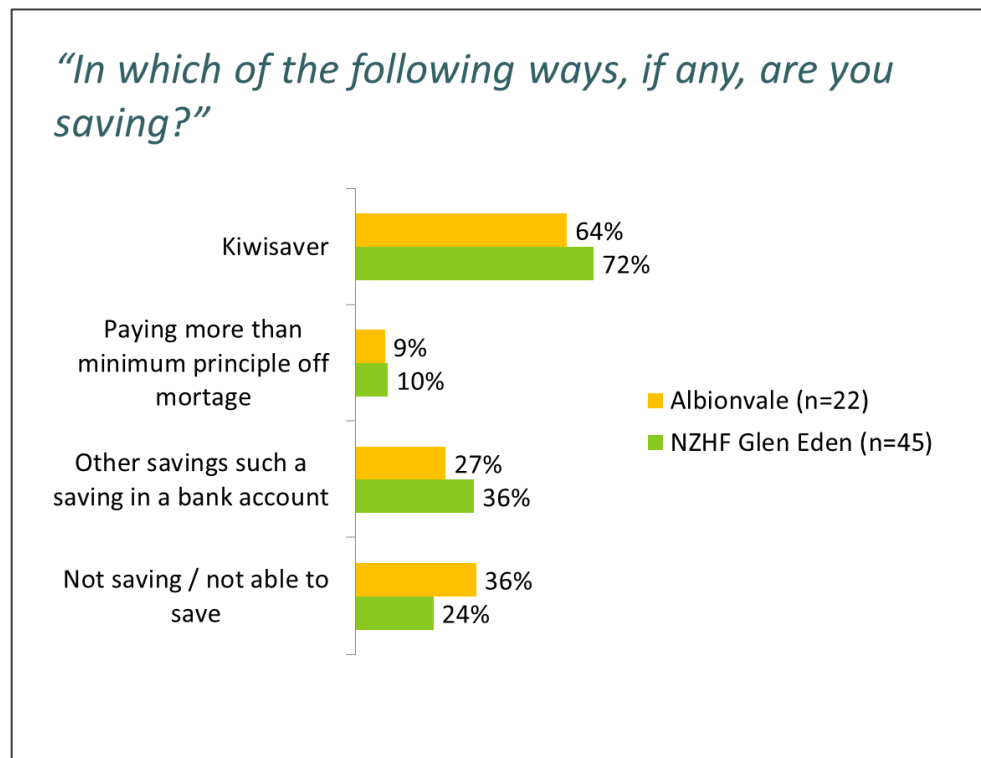


NZHF Glen Eden residents feel they are no more successful (and possibly less successful) at achieving their financial goals now than in their previous residence. Forty percent say they are

achieving their financial goals compared with 54% previously. However, this is still ahead of the 24% of Albionvale residents who feel they are achieving their goals.

Patterns of saving are broadly similar across the two samples (Figure 21). More of the Albionvale respondents are not managing to save. Of those that do, they, like the NZHF Glen Eden residents are likely to be in a Kiwisaver fund or operating a savings account.

**Figure 21. Saving Behaviour**



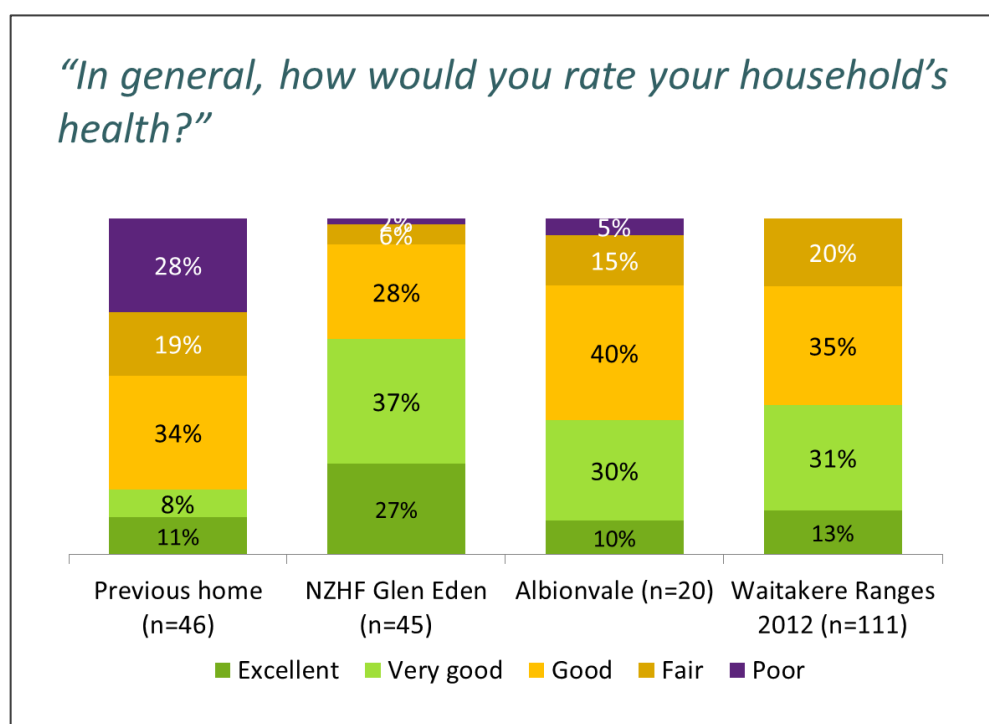
### 3.3.3 Health

Evidence exists that cold, damp housing contributes to winter illnesses and respiratory disease. An expected outcome for NZHF Glen Eden residents is improved health as a result of an improvement in housing quality relative to their former homes, particularly where the previous housing was of poor quality.

#### Overall health

Figure 22 indicates that the shift to NZHF Glen Eden has brought about an improvement in health.

**Figure 22. Household Health**



The majority of residents rate their household health very positively. Nearly two thirds say that their household’s health is excellent or very good compared with just 19% who reported their overall health as good or very good prior to moving to the development.

## **Independence**

This can be defined at different levels. With respect to NZHF Glen Eden, issues around sanctuary – the form and layout of the home – and domain – the immediate neighbourhood to which a resident “belongs” - might each contribute to a greater level of independence and security.

Dealing first with sanctuary, a particularly important issue for some people is the extent to which the housing helps them cope with mobility or particular health needs. For example, where people have mobility issues, single level living, wide doors and corridors, easy access to bathroom and kitchen facilities, entry ramps (rather than steps) which are not too steep and have rails, are all important. Hence, quality housing may be influenced by layout design as well as the quality of materials and thermal performance.

Quality housing will also provide for personal or household privacy and the capacity to “do your own thing” by way of in-house recreation. This may comprise a quiet area, an area for pursuing hobbies and handicrafts, or it may mean having the capacity to entertain family and friends, enhancing social interaction.

In terms of the nature of the domain, living in a community where you can depend on your neighbours for contact and, perhaps, help and friendship, is important. There may also be particular requirements for good access to public transport, health facilities and other amenities which a particular locality offers.

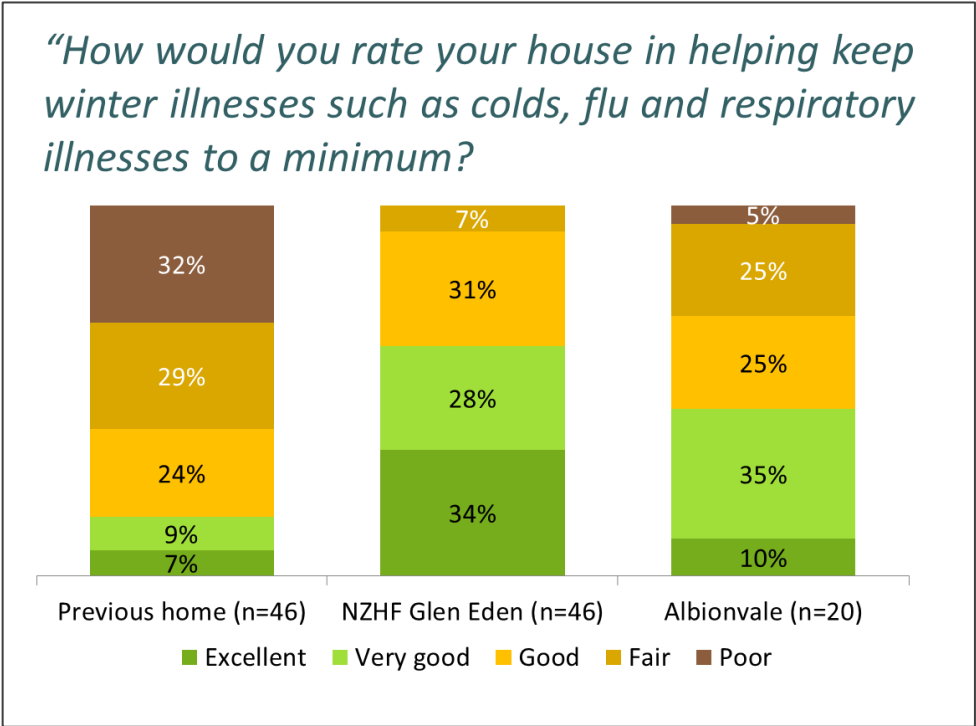
One resident commented that tenants with particular housing needs do not always ask for the relevant alterations, particularly when they are feeling vulnerable due to illness. This comment was born of an awareness of a person with failing health persevering with two story housing, even though their landlord had made it clear that a stair lift could be installed. This particular case concerned housing for the elderly.

Only four respondents identified special needs. Two of them felt that housing design and location at NZHF Glen Eden enabled them to live independently. Only one of three felt the same way in Albionvale. The NZHF resident who did not feel that housing there has helped lives in a large, two storied household.

Winter Illnesses

The NZHF has focused on providing residents with sunny, well insulated, dry housing that is affordable to heat. Good thermal performance and more efficient and therefore affordable heating are expected to improve health through a reduction in winter illnesses and respiratory problems. This appears to have been very effective (Figure 23).

Figure 23. Winter and Respiratory Illnesses

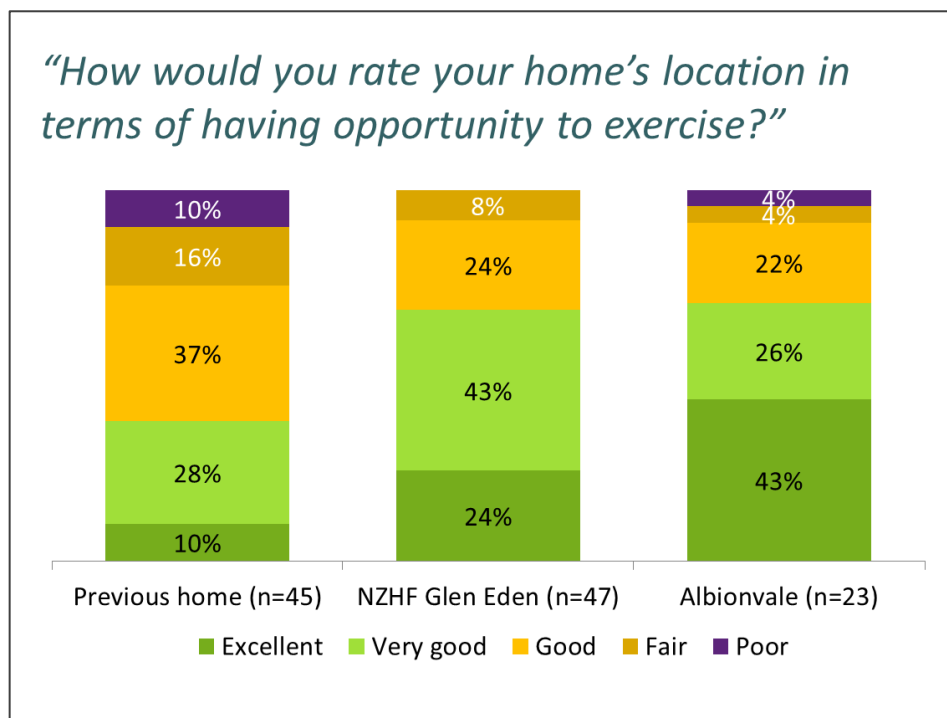


The housing is rated extremely positively in helping keep winter illnesses and respiratory illnesses to a minimum; 34% of NZHF Glen Eden residents rated their current dwelling as excellent compared with 7% rating their previous homes as excellent. Residents in the Albionvale area also enjoy relatively modern housing, however only 10% of them rate the home as excellent in helping keep illness at bay.

Exercise

Regular exercise is clearly an important part of a long and healthy life. The location of a house can provide increased access to exercise opportunities which in turn can increase the frequency of exercise. The location of NZHF Glen Eden provides good access to Parrs Park where there are a variety of recreational opportunities as well as walkways and cycle ways.

**Figure 24. Opportunity to Exercise**



The location of the NZHF Glen Eden provides good opportunity to exercise to residents and is rated more positively than their previous homes. Those living in the Albionvale area, which is slightly closer to Parr’s Park, are even more positive.

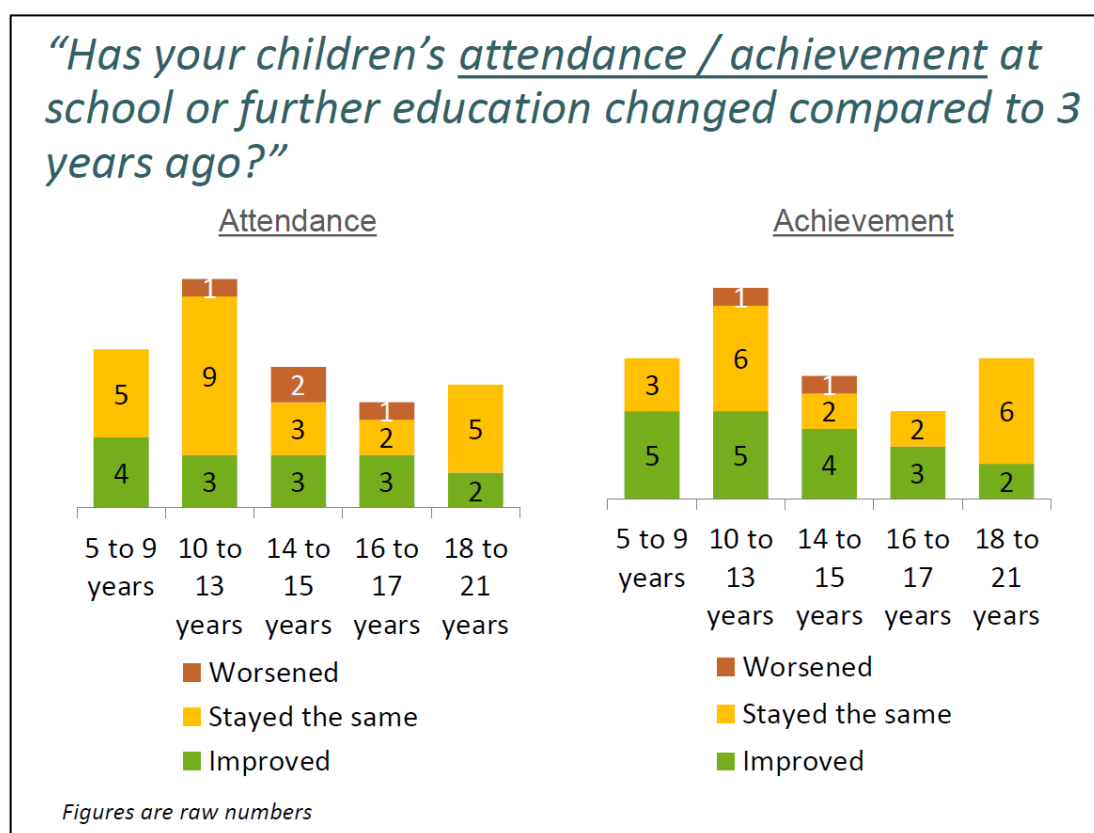


### 3.3.4 Education

Participation and achievement in education was identified in the Literature Review as a positive outcome of stable, quality housing. Education can involve the entire household, from pre-schooler through to adults obtaining higher education. For the purpose of this project, we have focused on school age children through to young adults (21 years of age).

Figure 25 shows parent ratings of their children's attendance (on the left) and their achievement (on the right), by age group. This chart relates to 43 children and young adults (aged 5 to 21 years) living in 25 of the NZHF Glen Eden households covered by the survey.

**Figure 25. Educational Attendance and Achievement**



The feeling amongst parents is that their children's attendance is similar (56% of children/young adults) or improved (35% of children/young adults) compared to three years ago.

In terms of achievement, parents are more positive: 48% of children/young adults are rated as having improved compared to three years ago and 48% as having stayed the same.

This indicates that in moving to NZHF Glen Eden parents have been able to maintain or improve their children's educational prospects. The move to a new house has not been at the expense of their children's education.

Parents were asked to give reasons for their answers in relation to their children's education. The following are comments from parents of children whose attendance or achievement has improved:

*"Living in a nice warm house and the house is not over crowded. Everyone has their own space and the children are getting less coughs and colds, therefore are at school more, so therefore if your child is well they're learning better."*

*"Children don't miss school as often as they used to as the home is warmer & drier. They are hardly ever sick."*

*"My friendly neighbourhood provides a safe and free environment for my 10 year old son ... a friendly competitive learning environment for the kids, hence my son's achievement at school greatly improved."*

Some parents reported a decline in their children's attendance or achievement. Some reasons for this are given below:

*"My son mixes with the wrong type of children that are not in a mind to set goals for their futures. They have lived on the benefit and don't want to go out and find jobs."*

*"Due to the bus also the expenses of bus and train."*

While good housing is one necessary condition for achievement it is not the only condition. Consequently, some parents made it clear that the improvements in their children were not related to housing.

*"My children's attendance or achievement are not based on what house we live in but by our parenting skills."*

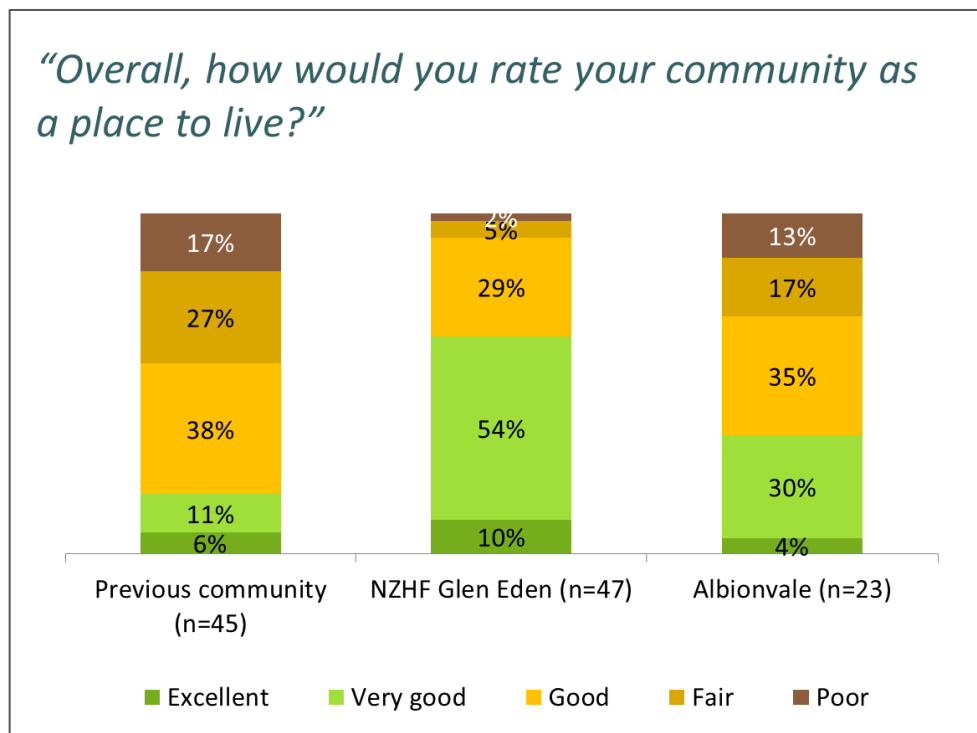
### 3.3.5 Community

An intended outcome of the development at Glen Eden is a socially sustainable community. For present purposes this is likely to be denoted by a sense of belonging and commitment among residents which would, in due course, be reflected in low levels of housing turnover, the physical appearance of the neighbourhood, the growth of incomes, relatively low levels of anti-social behaviour, and increasing community-based actions (for amenity improvement, community events, and shared recreation). This section considers community experience of the residents, particularly in terms of their sense of belonging and connection with others living nearby. Also included in this section are more functional aspects of the neighbourhood such as location and access to amenities.

#### Overall Experience of the Community

Participants were asked, “Overall, how would you rate your community as a place to live?” Figure 26 suggests that community life within the development is delivering a strong positive experience for residents. Nearly two-thirds of residents at NZHF Glen Eden rate the community as excellent or very good, an improvement from only 17% in their previous residence.

**Figure 26. Overall Rating of the Community**



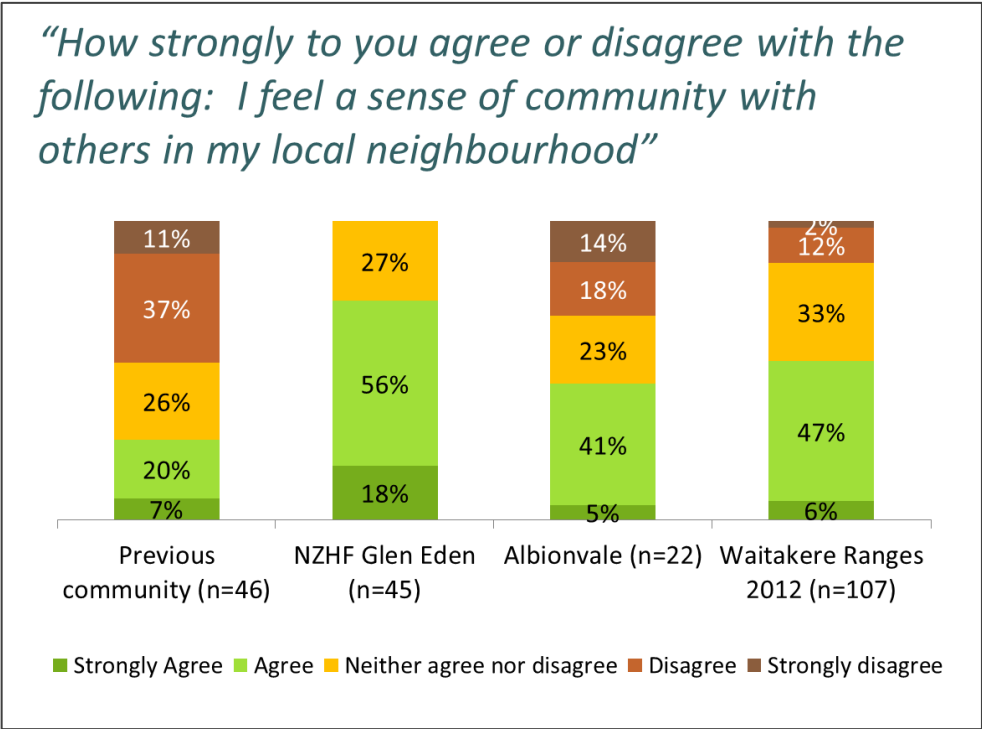
In the Albionvale area, the experience of the community is not as positive, with just one third rating it as excellent or very good, and 13% as poor.

**Belonging**

Feeling a sense of belonging is often reported to be an important part of satisfaction with community life: “Community develops around a sense of belonging- whether defined in terms of residents stakeholders, political constituencies, customers or users of facilities”<sup>11</sup>. Indeed, 84% of residents of NZHF Glen Eden reported that feeling a sense of community with others in their local neighbourhood was important to them.

Figure 27 shows how residents feel about the local sense of community.

**Figure 27. Sense of Community**



It appears that a strong sense of community has been established at NZHF Glen Eden. Some 74% of residents feel a sense of community, while 27% were neutral. Significantly, no one disagreed with this sentiment.

This contrasts strongly with the experience of the community when living in their previous home; only 27% said they felt a sense of community when living in their previous home and 48% said they did not feel a sense of community.

The sense of belonging by residents of the Albionvale area is weaker; 32% do not feel a sense of community in their local neighbourhood. Residents of the wider Waitakere Ranges local board area are reasonably positive about sense of belonging, but less so than residents of NZHF Glen Eden.

<sup>11</sup> CityScope Consultants in association with Nexus Research (2012). “Social benefit of living in New Zealand affordable housing within a planned integrated neighbourhood.” pg 26

The qualitative stage of the research throws some light on factors residents identify as contributing to the strong sense of community at the NZHF Glen Eden. These include:

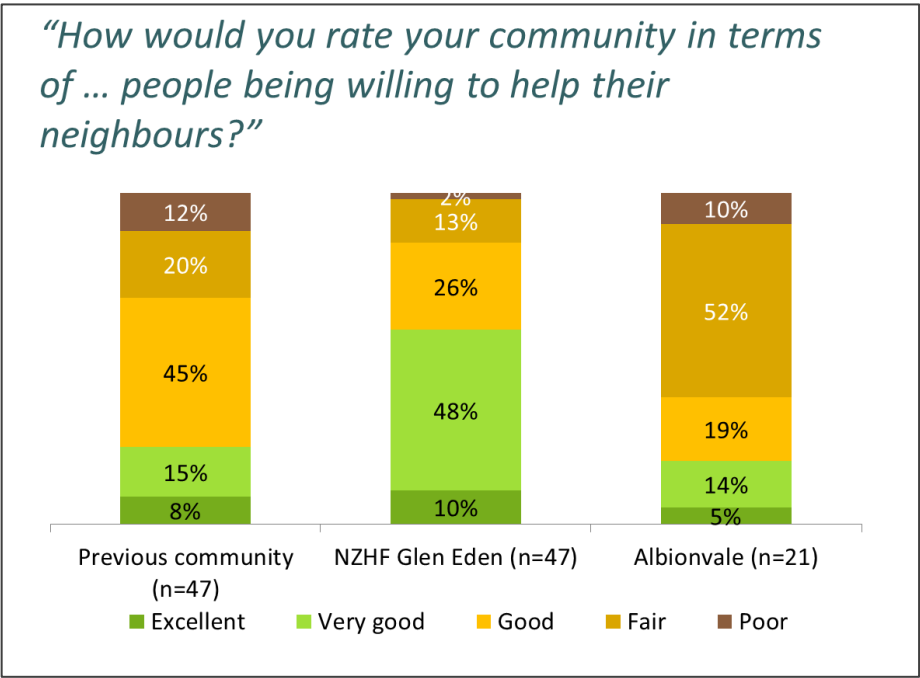
- The Neighbourhood Support programme. Neighbourhood Support was established soon after a break-in at one of the homes in the development. A resident contacted everyone in the adjoining streets and invited them to a meeting. This meeting and subsequent initiatives became significant in establishing relationships and the desire to look out for each other. Residents continue to support one another by keeping an eye on what is happening in their neighbourhood and responding when suspicious events occur.
- Community events. Other community events such as street BBQs and tree planting have afforded the opportunity for people to get to know their neighbours.
- Shared commitment. Most residents have a stake in the neighbourhood, either through home ownership or belonging to the Affordable Rental programme. This contributes to the desire to maintain the quality and appearance of their homes.
- Shared experience. Many of the residents are first time home owners with families. In addition, taking up the opportunity to move to a new development is a different experience from moving into an established neighbourhood. Residents of new developments have a high level of interest in what homes are being built and who is moving in; in other words, in how their community is taking shape.

Aspects of the built environment, such as the relatively small scale and the open front yards, may also be contributing to the strong community.

**Mutual Support**

One aspect of socially sustainable communities is that residents are able to rely on their neighbours for help should it be required. This is particularly important for those with health or mobility needs (Figure 28).

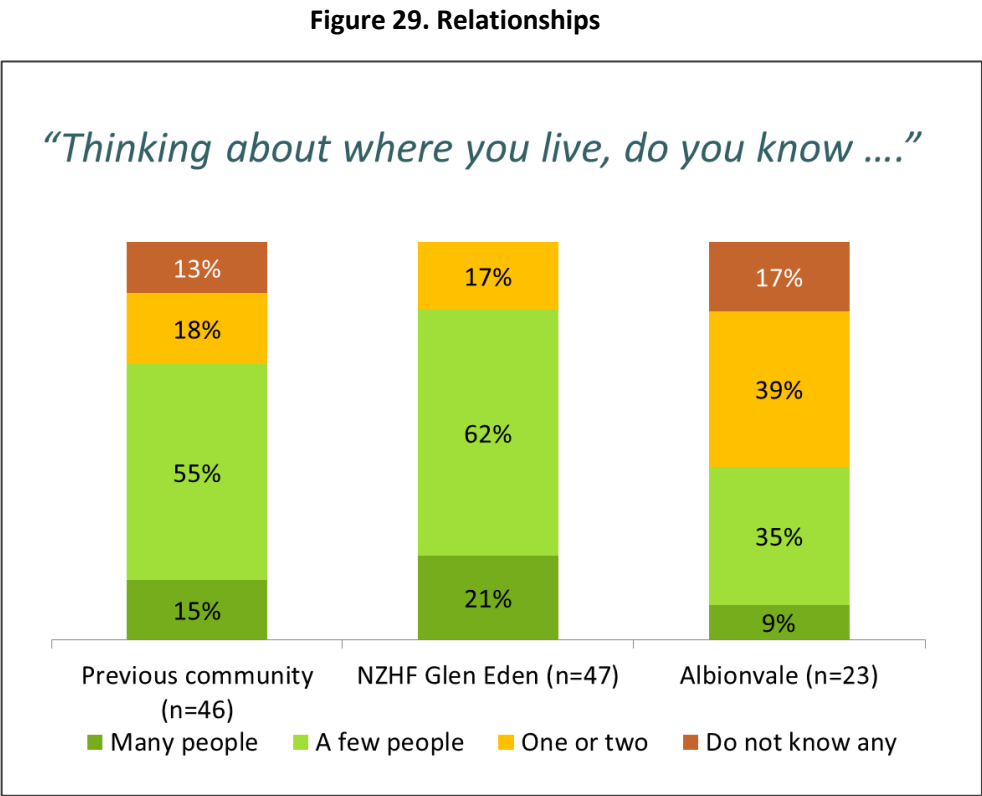
**Figure 28. Rely on Neighbours**



There is a perceived high level of mutual support and willingness to help one another within NZHF Glen Eden. This compares very positively with residents’ experiences of previous neighbourhoods and with the experience at Albionvale.

**Relationships**

Figure 29 compares the size of residents’ social networks within the neighbourhood.

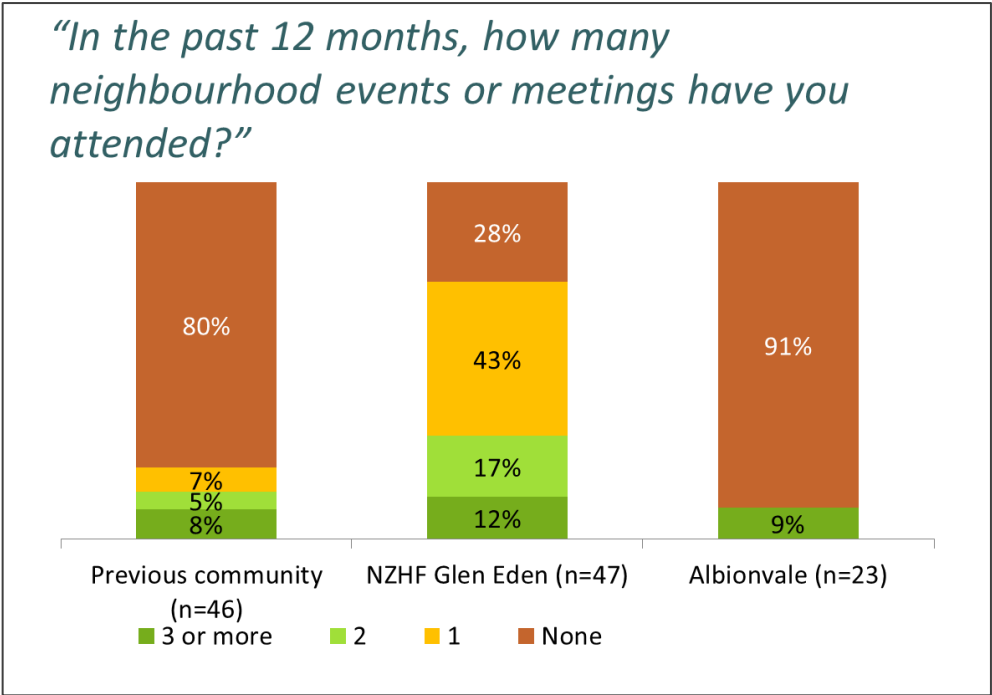


Everyone in NZHF Glen Eden knows one or more of their neighbours, with most claiming to know a few or many. The social networks within the development look to be slightly larger than the networks in their previous neighbourhood, and much larger than the networks in the Albionvale area.

Participation

Figure 30 below shows the number of events residents participated in during the previous 12 months.

Figure 30. Participation in Event

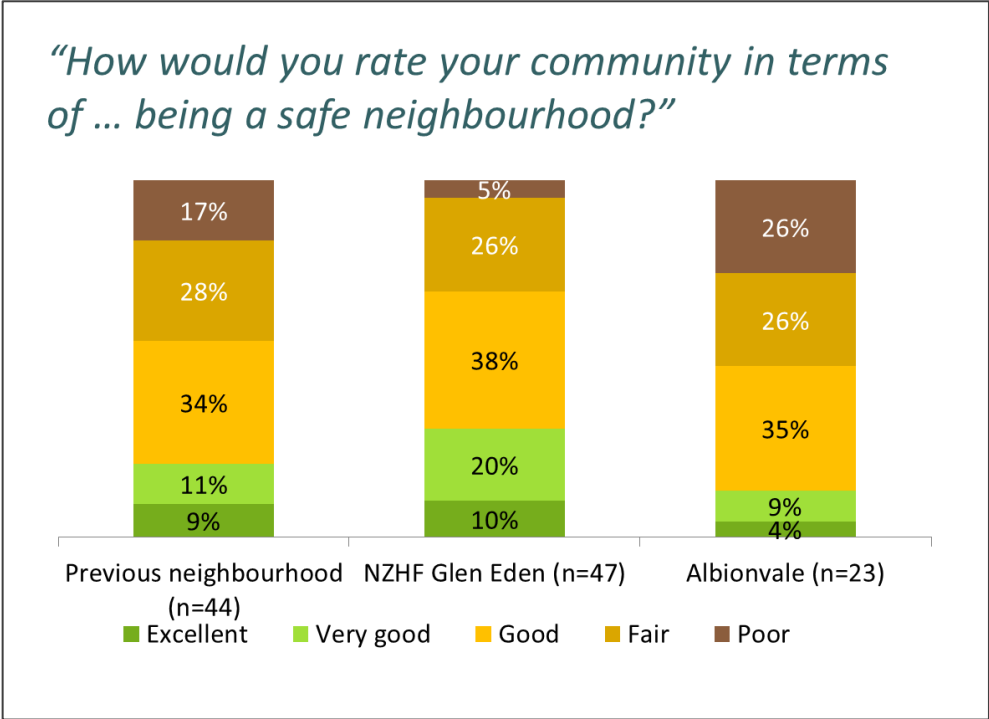


In keeping with other measures of social sustainability, NZHF Glen Eden residents’ participation in neighbourhood events is substantially higher than their participation in their previous neighbourhood, and compared with residents in Albionvale.

Safety

Feeling safe in one’s home and community is another potentially important contributor to quality of life and community sustainability. The following figure looks at resident ratings of neighbourhood safety.

Figure 31. Neighbourhood Safety



Despite the overall positivity about community life at NZHF Glen Eden, ratings of neighbourhood safety are somewhat muted. Only 30% of NZHF Glen Eden resident households rate the safety of the neighbourhood as excellent or very good, while 31% rated it as poor or fair. This is still an improvement on their previous community, and more positive than ratings of safety in the Albionvale area.

A low sense of safety is likely to be related to concerns about crime in the area (as discussed below). During the qualitative stage, one resident reported concerns about the use of the Salvation Army enclave as a thorough-fare for neighbouring streets wishing to access West Coast Road. The frequent occurrence of petty crime and the feeling that there are too many “strange people” are around were the causes of this concern.

A comment from a resident of the Albionvale area indicated an issue with speed:

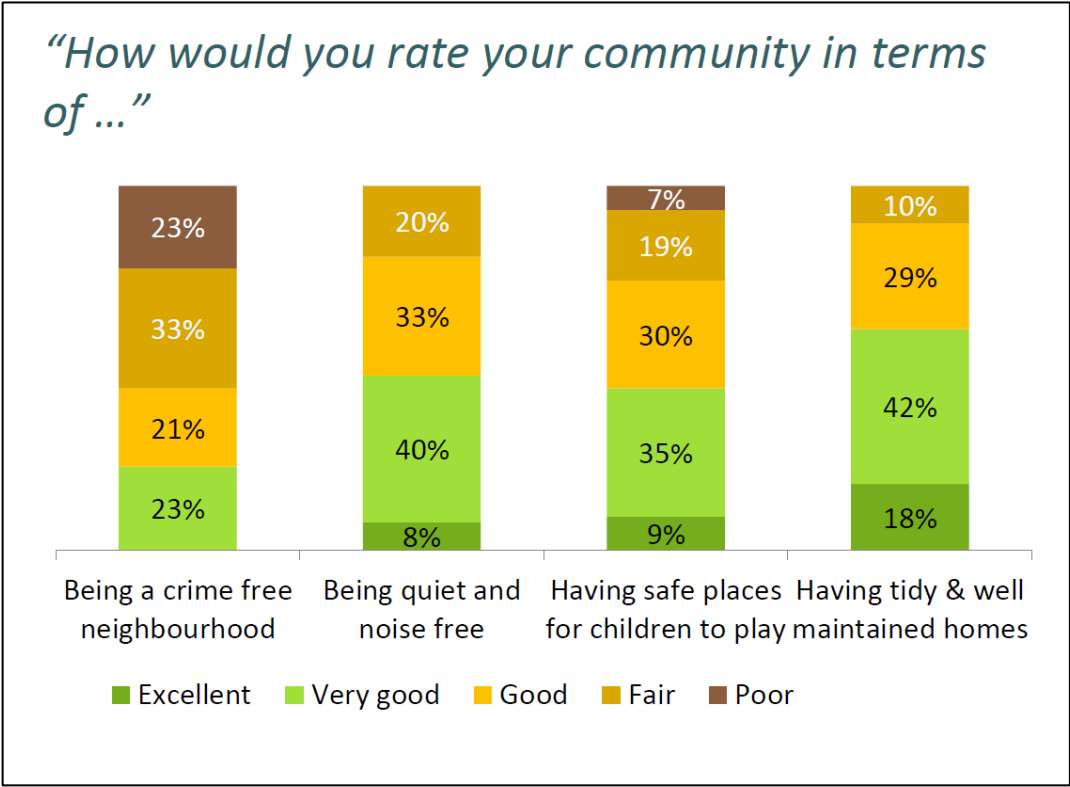
*“I like the place but our street, we need help, some people (drivers) are driving fast like on the motorway. I worry about my kids.”*



Other Neighbourhood Characteristics

During the qualitative stage other factors were identified by residents as contributing to enjoyment of the neighbourhood. These factors give additional insight into life at the Glen Eden development and are shown in Figure 32. The information in these charts is based only on residents of the NZHF development.

Figure 32. Neighbourhood Characteristics



The neighbourhood is not perceived as crime free (56% of residents rate this aspect of the neighbourhood as poor or fair). During the qualitative stage it was clear that there is a concern about break-ins and the dumping of stolen cars.

Residents in surrounding neighbourhoods are thought, in some instances, to be responsible and this concern has particularly driven the need for an active Neighbourhood Support programme. As one resident commented,

*"Its not a good idea to build Housing Foundation houses near Housing NZ houses as we have experienced barking dogs, loud music, crime form their tenants that are not as well vetted as HF tennants/buyers."* (Resident living in close proximity to Haki Wihongi Place)

While initiatives instituted by residents are seen as having been successful in reducing crime and have contributed to the strong community spirit in NZHF Glen Eden, concern over crime persists.

However, perceptions of the neighbourhood being quiet and having well maintained homes are generally positive.

Perceptions differ, though, on whether there are safe places for children to play; some feel that more provision needs to be made to provide greater safety e.g. locate play areas away from the road and address visibility hazards on corners so that children playing on the road are more visible.

While contributing to slower vehicle speeds, there is some frustration about the impact of narrow streets on parking. Once the available parking bays are filled, cars are forced to park with one wheel up on the verge. More on-street parking would address this issue.

### **Diversity**

In planning the community at Glen Eden, the NZHF wished to create a diverse, sustainable community. As such the community living in the development includes different tenures, people of different ethnic and cultural backgrounds, working and non-working people, and different age groups. Two issues explored in the research were the impact of different tenures and different cultures.

#### *Tenure*

The development comprises owner occupied homes, and rented homes through NZHF and partner providers of social housing. The reaction of residents to this range of tenures and mix of people was sought during the qualitative stage of the research.

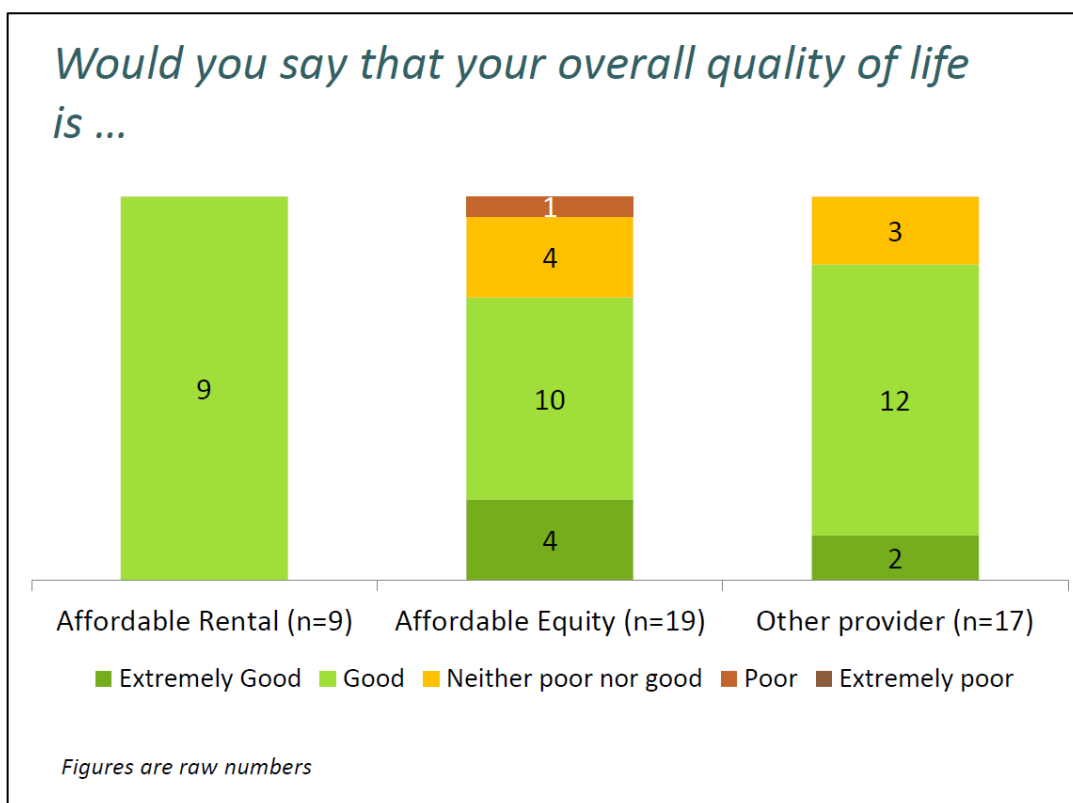
Some residents were unaware of the different types of tenure and programme present in the development, or whether their neighbours were owners or renters. Their satisfaction with the community was related to whether properties are well maintained and whether neighbours are friendly and trustworthy. Some people did express a slight preference toward owner occupied properties; this preference was based on the belief that owners have a greater stake in the future of the neighbourhood and will act to maintain the value of their properties.

Overall, the mix of tenure types at NZHF Glen Eden is regarded by residents has working well.

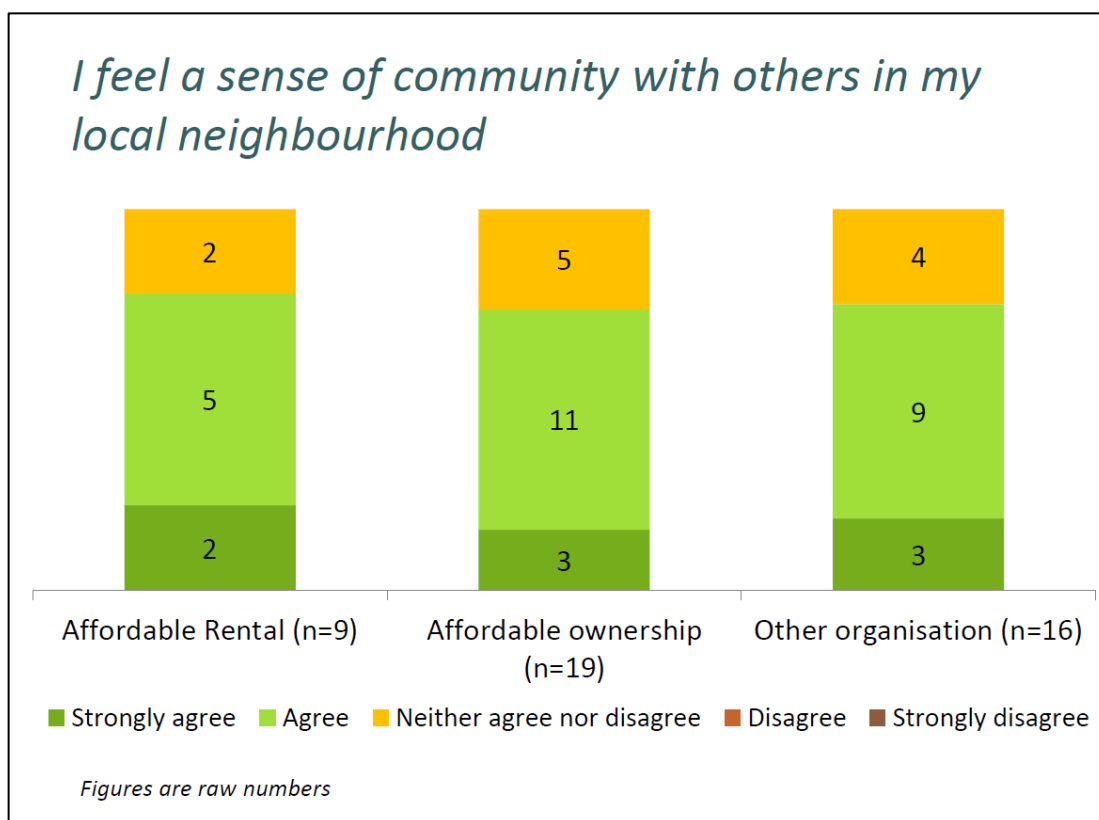
There is also little difference in the perceived quality of life by renters compared with owners. In fact, Figure 33 indicates that Affordable Rental residents are more positive than other residents. This may be due to a greater enthusiasm among them about the opportunity provided to them by NZHF.

All tenure groups share a sense of belonging (Figure 34). It is encouraging that residents of the emergency and social housing equally feel that they are part of the neighbourhood community.

**Figure 33. Quality of Life by Programme / Tenure**



**Figure 34. Sense of Belonging**



### *Ethnicity and Culture*

Within the development, about 66% of households include at least one person from a non European ethnic background.

Residents of the NZHF development were asked: *Your neighbourhood is home to a number of people with different lifestyles and cultures. Do you feel this makes it ...*

*A much better place to live*

*A better place to live*

*Makes no difference*

*A worse place to live*

*A much worse place to live."*

Most residents (69%) feel that the cultural and ethnic diversity in the development makes it a better (or much better) place to live. None felt that the impact on the development made it a worse (or much worse) place to live.

Non Europeans were more inclined to be positive about the impact of diversity (72% better or much better) while Europeans were still positive but less so (58% better or much better).

Comments made during the qualitative research indicated that a variety of people from different backgrounds can add to the sense of belonging for some residents. This was particularly the case for people from minority groups who do not feel like they "stand out" in the NZHF development.

These findings confirm that the NZHF approach to mixed ethnicity and mixed tenure developments, as has operationalised in Glen Eden, is working well.

### **Housing for the Elderly**

This provision made for the ageing segment within the development includes 14 one and two-story homes provided by the Salvation Army. We note that the ages of those living in this sub-community ranges from 50 to 65+ and includes working and non-working people.

These units are set in a street positioned between the rest of the NZHF development and Albionvale Road that offers good pedestrian connection to West Coast Road and public transport. Its use as a pedestrian thoroughfare has prompted use of "private road" sign in an attempt to discourage use by residents of the surrounding streets.

While this is clearly a close-knit and supportive community enjoyed by most residents, there are indications that *some* would prefer to live in a more diverse (ethnically and lifestage) community, with more social contact with neighbours. This raises the possibility of offering elderly residents a choice of location in future developments rather than only offering an "ageing enclave" for them.

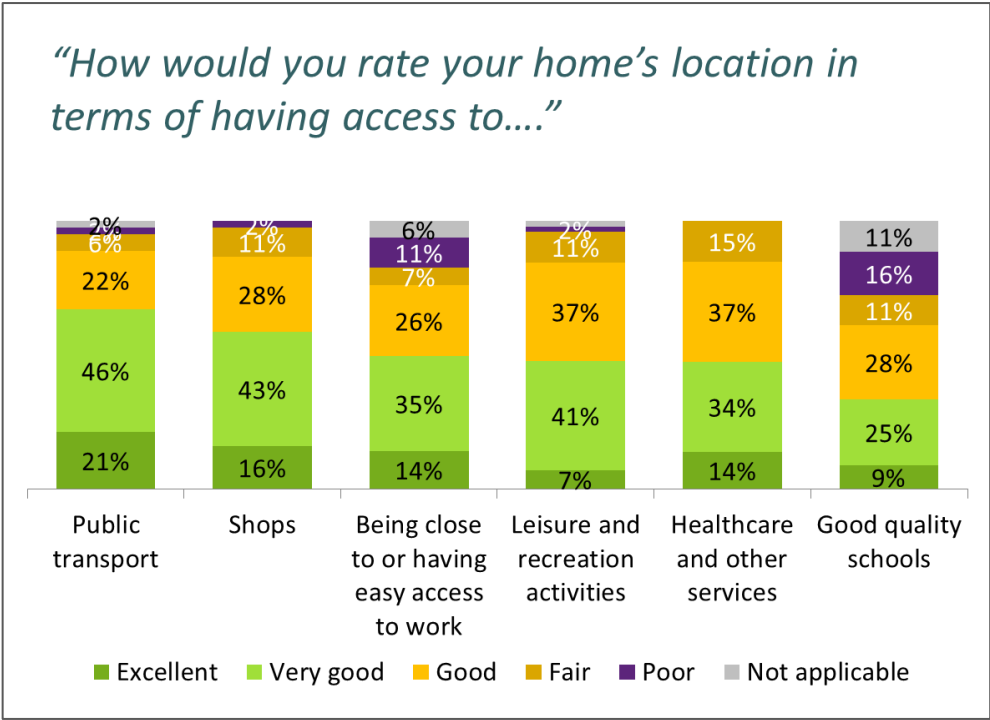
### **Location**

This section explores residents' perceptions of the location of the development in terms of providing access to transport, work and amenities.

NZHF Glen Eden is seen by residents to be well connected to public transport (Figure 35). Bus stops are situated on West Coast Road within a two minute walk with buses providing good

connection to Glen Eden, New Lynn, and Henderson town centre. The train is situated in Glen Eden township (about 2km from the development) and provides connectivity to Auckland CBD and other destinations.

Figure 35. Location



Residents are also positive about access to the shops (59% rate this as excellent or very good), leisure and recreation facilities (48% rate as excellent or very good), and healthcare and other services (48% rate as excellent or very good).

The development is well located for commuting for 49% of residents; while 18% rate this aspect of the location as fair or poor.

Access to good quality schools is perceived as the area of greatest weakness; only 34% rate this aspect of the location as excellent or good, while 28% rate it as only fair or poor.

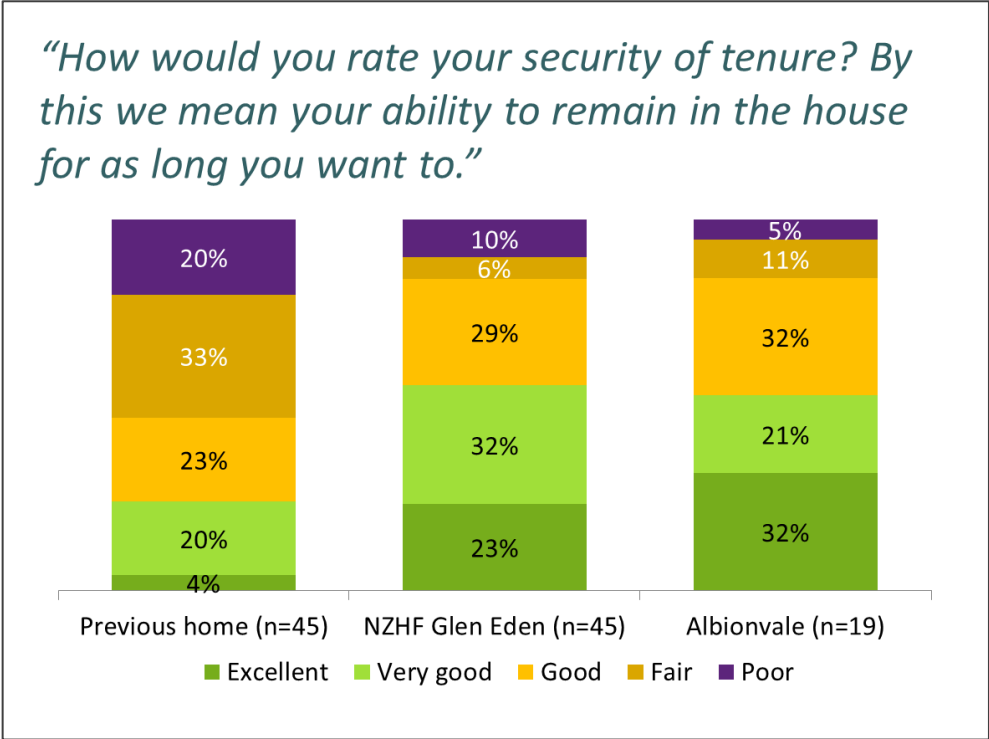
### 3.3.6 Security of Tenure and Comfort

This section considers factors that are important to residents such as security of tenure, the opportunity to own, and the extent to which the housing meets household needs. These questions were based on the findings of the qualitative stage of the research which identified them as in contributing to a sense of well-being.

Security of Tenure

Figure 36 shows that 55% of NZHF Glen Eden residents rate their current security of tenure as excellent or very good. There is clearly an increased sense of security compared with their previous home.

Figure 36. Security of Tenure



Four people living in the NZHF development rate their security of tenure as poor:

- One person is living in rental accommodation provided by another organisation;
- Two are owners who are under financial pressure;
- One person perceives the area to have too much crime.

Residents in Albionvale also tend to feel secure in their tenure. This may be due to a high proportion of Housing NZ tenants.

Residents who rated there security of tenure in their previous home as “poor” or “fair” have experienced particularly big gains in their quality of life. Previously only 31% of residents with insecure tenure rated their quality of life as extremely good or good; since moving to NZHF Glen Eden this has increased to 86%.

Ownership

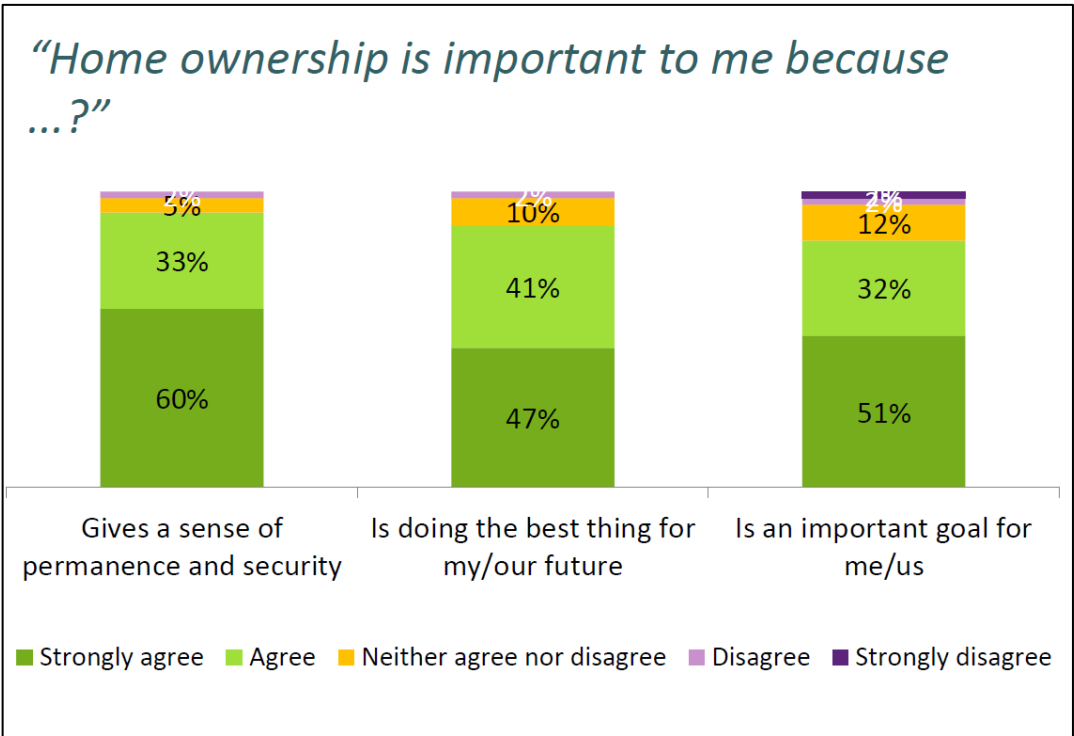
For many people, home ownership is an important goal. Realising this goal provides a sense of well-being in its own right; people have a greater sense of security and permanence and feel that they will be better off in the future as a result of their decision to buy.

*“Coming across the HF was the best thing because we wouldn’t have been able to do it [home ownership] otherwise.”*

Figure 37 shows the importance that residents from NZHF Glen Eden place on home ownership. While many residents are finding their financial positions challenging, they are prepared to put up with this financial pressure in order to own their own homes.

In providing ownership opportunities, it appears that NZHF is ensuring people are able to fulfil an important goal *and* live in good quality housing.

**Figure 37. Ownership**

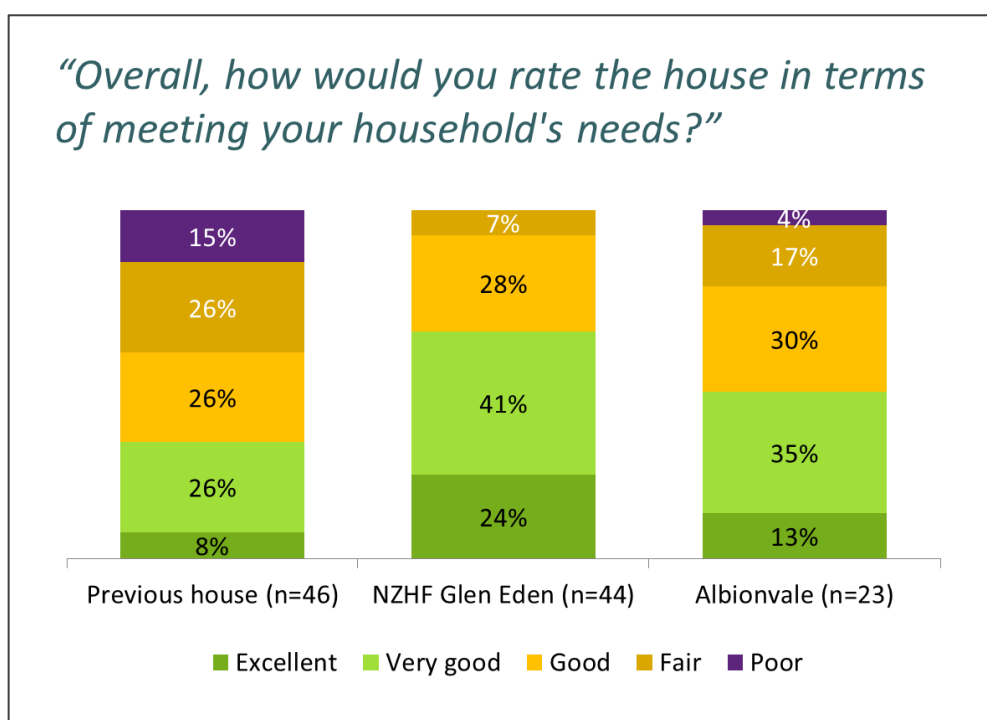


**Suitability of Housing**

To contribute to quality of life, housing needs to do more than just provide a shelter and security. Having adequate space for household members, room to entertain guests, being a safe clean environment for children, and having a green outlook, are all aspects of housing that contribute to satisfaction with life according to the residents interviewed in the qualitative research.

The houses in NZHF Glen Eden better meet the needs of residents than their previous homes. This is a reflection of the quality and design of the homes themselves and the selection policies of NZHF which aim to align number of bedrooms with size of household.

**Figure 38. Rating of House**



The following sections consider different aspects of the housing and the extent to which it is meeting resident needs.

### ***Areas used for Sleeping***

Despite efforts to align households with appropriate sized homes, there are some instances of over-crowding at Glen Eden.

Residents were asked, “Do people use other areas of your house for sleeping on a regular basis?” While most residents (82%) only use bedroom for sleeping, the remaining 18% use other areas:

- 12% reported that they use the lounge for sleeping;
- 2% use the garage;
- 4% use both the lounge and the garage.

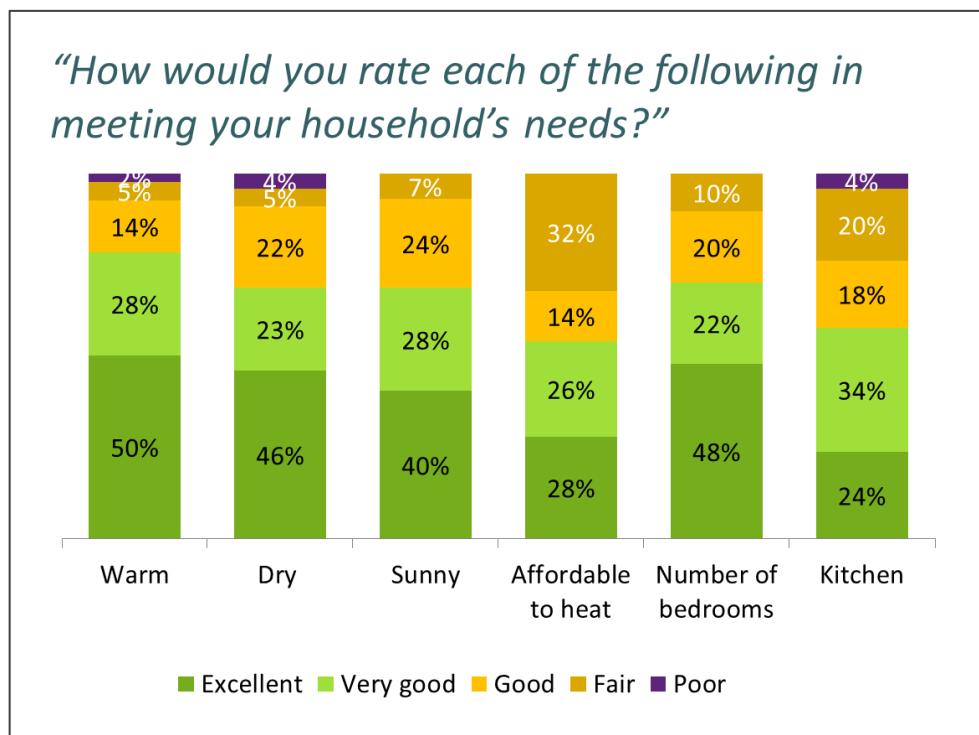
Additional sleeping space (and/or living space) is needed for larger households. Providing the opportunity to convert the garage into space that can act either as additional living or sleeping space would help meet the needs of these larger households.



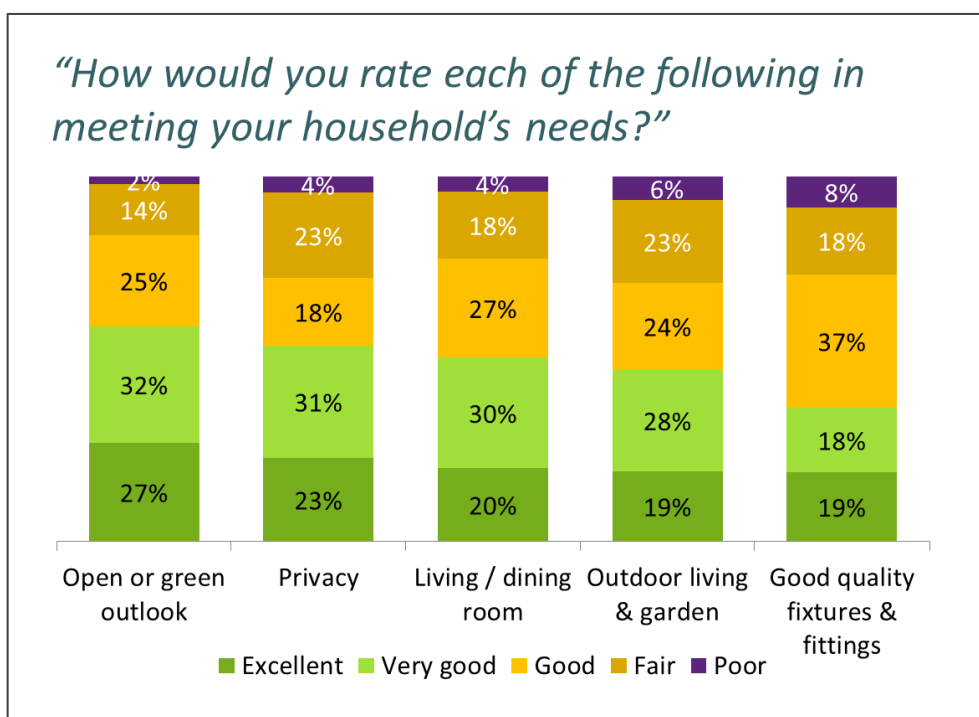
### Dwelling Characteristics

Figure 39 shows summaries residents' ratings of the extent to which different aspects of the house are meeting household needs.

**Figure 39. The House**



**Figure 40. The House (continued)**



Residents are particularly positive about the warm, dry, sunny aspect of the house. Despite use of the lounge and garage for sleeping, most residents are positive about the number of bedrooms. This may be reflecting the greater suitability of this house over the previous home.

Residents are less positive about the quality of the fixtures and fittings, and the outdoor living and garden area. Poor quality or insufficient topsoil resulting in gardens and lawns that do not thrive is one reason for the dissatisfaction with the gardens. Mention was also made of occasional flooding in the backyard.

It is also noted that those living in large households tend to be less positive about the kitchen. This may indicate a need for larger kitchens in larger dwellings.

### 3.5 A Changed Quality of Life?

The previous sections compared residents' lives in the dwellings they occupied previously with the dwellings they currently occupy in NZHF Glen Eden. This section addresses the changes that have occurred by summarising responses to three questions:

- How many people have experienced a changed quality of life since moving to the Glen Eden development?
- How has moving to the development changed quality of life?
- What part of the changed experience is most important in driving improved quality of life?

The focus of this section is residents of the NZHF development (rather than residents of the Albionvale area).

#### **How many residents have experienced a changed quality of life?**

Residents of the NZHF development were asked to rate their current quality of life and the quality of life when living in their previous home. A comparison of answers to these questions reveals how many residents have experienced an improvement in quality of life and how many a decline (Table 3).

**Table 3. Percentage of Residents who have a Changed Quality of Life**

<b>Improved</b> – quality of life rated more positively since moving to the development	54%
<b>The Same</b> – no change in quality of life since moving to the development	30%
<b>Declined</b> – quality of life rated less positively since moving to the development	16%

More than half households rate their quality of life as better now than in the past. However, 16% rated their quality of life in their previous home more positively.

It should be noted that the quality of life gains reported here are more notable amongst the Affordable Rental residents, none of whom reported deterioration in quality of life.

## How has life changed since moving to the development?

Table 4 shows the percentage of households who rate each aspect of life since moving to NZHF Glen Eden more (or less) positively than in their previous home.

Highlighted in green are those aspects which 50% or more of residents rate more positively since moving, indicating the areas where there has been a collective improvement in experience. Highlighted in brown are aspects which 40% or more of residents rated more negatively since moving to Glen Eden. These are areas where there has been a collective decline in experience.

**Table 4. What Aspects of Life Have Changed?**

Intermediate Outcomes		Better now	Same	Better previously
<i>Relationships</i>	Friends & family	37%	41%	22%
<i>Work and Financials</i>	Employment stability	4%	62%	34%
	Percentage of income on housing	31%	0%	69%
	Financial stress	18%	40%	42%
	Current financial position	17%	38%	45%
	Future financial position	54%	26%	7%
<i>Health</i>	Overall health	63%	30%	7%
	Winter and respiratory illnesses	81%	5%	14%
	Opportunity to exercise	51%	36%	13%
<i>Education<sup>12</sup></i>	Participation	35%	56%	9%
	Achievement	48%	48%	4%
<i>Community</i>	Sense of community	70%	18%	12%
	Neighbours willing to help	48%	33%	19%
	Established relationships	37%	47%	16%
	Participation in events	58%	33%	9%
	Safe neighbourhood	45%	34%	21%
<i>Security &amp; comfort</i>	Security of tenure	63%	21%	16%
	Suitability of house	58%	28%	14%

*Read: 37% of households rate visitation with family or friends more highly since moving to the Glen Eden development; 22% rate the location of their previous home more highly in relation to visitation with family or friends.*

The table highlights that:

- While the financial position has declined for many, expectations about their financial future has improved for more than half of households;
- Health, particularly in terms of winter illnesses, has improved for many households;
- Enjoyment of the community and participation in events has improved
- Security of tenure and suitability of the house has improved for more than half of households.

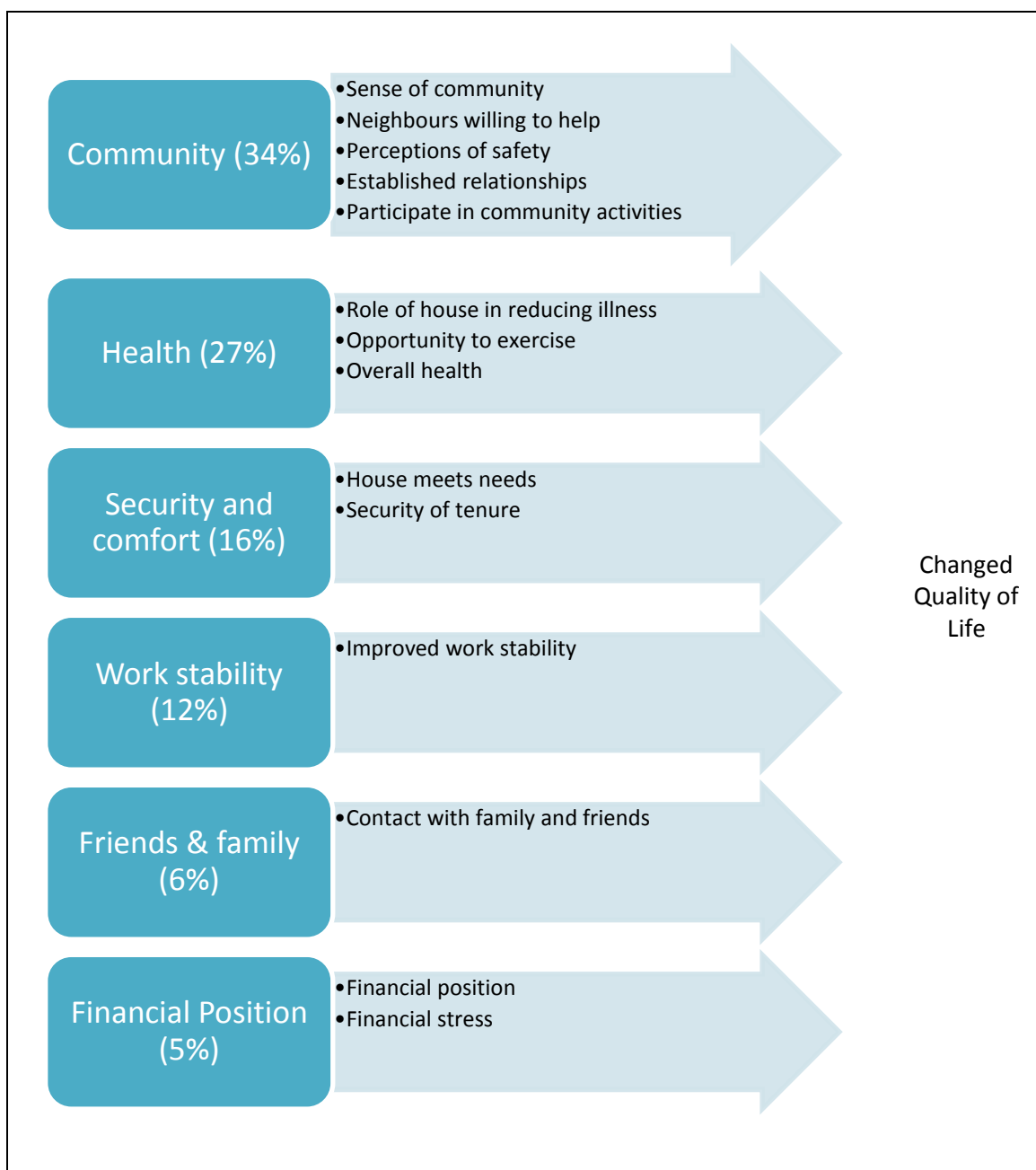
<sup>12</sup> Education percentages based on percentage of children and young adults in the development.

### Which changes are most important?

The question remains, which of these changes has had the biggest impact on quality of life?

The chart below shows the relative importance<sup>13</sup> (in brackets) of each factor in contributing to the changes in quality of life. The figures represent the ability of each factor to explain changes in quality of life.

**Figure 41. Drivers of Changed Quality of Life at NZHF Glen Eden Development**



<sup>13</sup> There are various approaches to measuring Relative importance. Here we have used an approach which assesses each factor's ability to explain changes in quality of life. This was calculated by averaging  $R^2$  for each factor over all positions in the Least Squares regression model. For further details, see Appendix A.

Community life is the single biggest driver of changed quality of life. In other words, the residents who experienced a big improvement in their enjoyment of the community are the residents most likely to have also experienced an improvement in their quality of life. This means that not only has NZHF being successful in creating a strong community, but that this community has been effective in improving quality of life. This finding underscores the importance of community building as a way of improving quality of life in future developments.

The second biggest driver of changed quality of life was a change in health. Once again, people whose health has improved are more likely to report quality of life improvements. Equally, people whose health has deteriorated are the more likely to report quality of life declines. While health status can change irrespective of housing, we note that residents report a significant reduction in winter illnesses since moving to the development.

Security and Comfort are next on the list. Those who feel more secure in their tenure and rate the suitability of their current house more positively than their previous house are more likely to have experienced quality of life gains when they moved to the development.

Finally work stability: those who have experienced a decline in employment stability are less likely to have experienced a quality of life gain.

The final two factors (friends and family and financial position) account only for a small proportion of the changed quality of life scores. It is interesting to note, that financial position is NOT an important influencer, presumably because the increased financial pressure that many households are experiencing is balanced by the improvements experienced in other areas. As one resident commented,

*"Owning own house ... feels great. Wife lost her job soon after moving into my new house so our income was affected."*

### *Implications*

This analysis underscores the importance of building strong communities. Life can throw many challenges at families (job losses, health declines etc) – there is no way to prevent the unexpected or prevent the associated impact on enjoyment of life. But, all things being equal, a strong community can make a big difference to the enjoyment of life in a new development and build the support networks to help people cope with unexpected or difficult circumstances.

## 4.0 Conclusions

1. The NZHF Glen Eden is achieving its objective of improving quality of life of residents through the provision of quality housing and a planned community at Glen Eden.
2. Quality of life gains are being experienced in:
  - Improved health, particularly through a decline in winter and respiratory illnesses
  - Enhanced enjoyment of and participation in community life
  - Security of tenure
  - The suitability of housing in terms of capacity and layout
  - Expectations of future financial situation
3. Community life at NZHF Glen Eden has been a significant factor in improving the quality of residents' lives, a finding which justifies and endorses NZHF's focus on community building.
4. The quality of the housing at Glen Eden appears to be driving a reduction in winter illnesses, and in some households, greater participation in education amongst children.
5. Tenure matters. Ownership is important to residents and while it might contribute to financial pressures, it also acts as a motivator for debt reduction and saving. Consequently, increased financial stress is not sufficient to reduce the perceived quality of life. Quality of life gains are evident for residents irrespective of tenure, but are strongest for those on the road to ownership (i.e. those in the Affordable Rental programme).
6. A deterioration in a household's financial position suggests that while the programmes offered by NZHF makes it possible for people to own their own, quality homes, for many residents this may not be achieved within current definitions of affordability. The trade-off for households, therefore, may be between short-term financial pain which, given the promise of longer term financial gain, is not sufficient to diminish overall gains in quality of life.
7. This finding suggests that ways could be explored to help residents deal with changed financial circumstances or on-going financial stress. This already includes budgeting advice. In some cases it could include welfare advice and advocacy. A lower share of equity for those in the Affordable Equity programme could also be considered.
8. Diversity (including mixed tenure and ethnicity) as it has been operationalised in NZHF Glen Eden is working well, in some ways contributing to a strong sense of community.
9. The location of the development in an area where crime is perceived as an on-going threat has contributed to concerns about safety. Community initiatives have been effective in mitigating much of the concern related to this perceived threat.
10. The model identified in this research is useful for understanding the impact of housing on quality of life, and thus lends itself for use in future monitoring.

## 5.0 Implications for Future Developments

### The Dwelling

A focus on quality, affordable housing is central to the NZHF programme and the model has been developed to demonstrate how it might and might not work.

NZHF's focus on quality, affordable housing, is underpinned by the security of tenure afforded by the ownership opportunities provided. While the "path to ownership" may not suit everyone this criteria appears to help with a range of other objectives that link residents' and the positive experiences they have with the wider community environment. Our research suggests that tenure is the glue that helps to cement in the more immediate attributes of a strong dwelling and neighbourhood which are the material and psychological drivers of improved quality of life.

In a practical sense, the design of the house has a major role to play – a necessary if not sufficient condition to achieving an improved quality of life. Most obviously, it should offer a warm and healthy living environment. In terms of design it should offer the capacity to socialise – to maintain the network of family and friends – and privacy. It should be fit for purpose – with bedroom spaces, for example, reflecting family size. For retired people it should be on one storey and, retirement notwithstanding, provide space for activities – home-based work, hobbies and crafts, and hospitality.

The quality of the houses is well regarded on most criteria such as number of bedrooms, warmth and sunlight. This is likely to explain the perceived improvements in health and education. For larger households the flexibility to convert garage space into living space would further improve quality of life.

### The Neighbourhood

Moving into a new development appears to create an ethos around pride, belonging, and commitment, regardless of tenure. NZHF Glen Eden does not depend on a range of small landlords and thereby avoids a high level of tenant turnover. NZHF and the other providers are social landlords, with a focus on community development. This should prevent a deterioration of the quality of rental properties.

### The Community

An improved community life emerged as the main - or most direct - driver of improved quality of life. It, in turn, appears to have been driven by a common sense of community identity. This may well be the end result of the careful attention to planning across dimensions that may be considered when assessing other development opportunities, such as diversity of ethnicity and diversity of tenure (see section headed Planned Development, below).

Activities promoted by the NZHF such as tree planting days and resident initiated community events also appear to have contributed. While such events may have been initiated by the NZHF the limited scale of NZHF Glen Eden and development over a relatively short time frame has encouraged bottom up community initiatives.

One lesson for future NZHF projects may be the advantage that comes from modest scale in a physical setting with design practices that enable it to be characterised as a coherent community. A strong sense of community complements quality housing in securing an improved quality of life.

Limiting the scale of developments should also create more opportunities for similar developments in terms of the likely availability of suitable greenfield, infill, and brownfield sites within city boundaries.

### **Friends and Family**

Our research indicates that many residents of NZHF Glen Eden were from the surrounding area (or had links to it). Consequently improved housing circumstances in the same sector of Auckland enhanced the opportunity for building their relationships with family and existing friends.

Consideration may be given to making proximity a condition of entitlement for housing in particular developments. It may also influence which sites are selected for development, with a view to needs in the surrounding catchment (or, in housing terms, the sub-regional market). An area that might be considered most appropriate would be characterised by a pool of intermediate housing market prospects. The notion of drawing residents from within, say, a 20km radius is also consistent with limiting the scale of developments.

### **Improved Financial Prospects**

The study demonstrated that occupants tended to be worse off financially than before they relocated, and are suffering increased financial stress. This may in part be exacerbated by external factors – the impact of the Global Financial Crisis, for example, has been to slow down employment and income growth generally, in Auckland, and has led to greater labour market volatility over the past five years.

Nevertheless, the NZHF is aware that new occupants do pay more than previously (through former rentals, for example). However, this is offset somewhat by lower heating costs. The NZHF therefore favours the total costs of ownership as an appropriate benchmark for assessing gains to residents

The residents in this study were aware that they were making a trade-off between short term pain and potential long term gain from improved property values and wealth generation through ownership. The prospect of living through the GFC and emerging into another house price boom may accentuate this trade off.

Reflecting on NZHF primary goal of providing affordable housing to low income families, the actual benefit at Glen Eden may more accurately be described as offering an improved quality of life through, among other things, the perceived longer-term benefits of home ownership. For affordability to be more centre-stage, though, there may need to be more flexibility in the way that required payments are assessed.

There may be situations where alternative financial arrangements that are more to do with the prevailing economic conditions than individual circumstances or housing costs so that short-term funding strategies might be used to ease short term financial stress. These might include as lower equity shares for shared ownership plans, short-term mortgage holidays if conditions deteriorate, or mortgage insurance.

The challenge is to look beyond prevailing NZHF arrangements and the circumstances of individual households and retain some flexibility in the face of changing labour market and general economic conditions.



## **Improved Health**

Improved health was a major contributor to gains in quality of life and appears to be heavily influenced by the difference in quality of housing before and after the move. Clearly the quality of housing provided, and not simply its provision or relative affordability, is critical to satisfaction. The chain of causation from the provision of housing through gains in a household's health status and the enhanced participation this allows its members in education, work, and particularly community matters, is a key to understanding the gains in quality of life resulting from the NZHF programme.

## **Better Education Outcomes**

This chain can be assessed in terms of the impact of better health related to better housing on children's schooling. The evidence also suggests that access to schools and preschools is also a significant consideration in project location and design given that the majority of occupants are likely to be families with school age children.

There were some concerns at NZHF Glen Eden over the quality of local schools. While this issue lies outside the NZHF programme, there is a possibility that it will be redressed over time as communities get stronger (with fewer transient residents and increasingly committed and engaged households) and put more pressure on for improved educational performance.

## **Safety and Security**

Some design features are problematic. In particular narrow streets combined with high car ownership have created parking problems and concerns about the safety of children playing. New developments may be better served with dedicated children's play areas (pocket parks or grassed areas) and better provision for parking.

In addition, NZHF Glen Eden (in effect a cul de sac connected to a main thoroughfare) has become a convenient dumping ground for stolen cars. This raises the question of how strong connections outside the neighbourhood need to be, or how they might be "managed" in design terms, if surrounding streets are known to be sources of "trouble".

There were some general concerns about security. Consequently, formation of the Neighbourhood Support group was important in uniting residents in response to a common fear of crime, one that reflects and builds on the sense of community apparent in NZHF Glen Eden.

This approach lies behind support for continuing to have low fences so that neighbours can keep an eye on each other's property. The placement of living spaces at the front of the house also contributes to residents' ability to keep an eye on the street.

## **Focus on the Intermediate Market**

A focus on the improvement in the quality of life based on residents' comparisons of their former circumstances and life in NZHF Glen Eden suggests that the greatest gains will be for people coming from the worst housing. Housing need is inevitably an important part of the selection criteria for potential residents.

This needs to be balanced against the ability to pay, however, to avoid over-stretching residents or encouraging a high turnover of households. This suggests that, or is consistent with, the NZHF focus somewhere between pure social housing and promoting ownership and participation in the market. This "intermediate" ground has been growing rapidly and continues to do so as house prices shift

beyond the reach of many who may previously have been able to afford to buy – the dual income household falling into and potentially trapped in the long-term rental market.

If NZHF can make ownership once more a prospect for this market, there should be individual, household, and community benefits from the greater household health and stability and commitment to community – an improved quality of life – that the research suggests results.

### **Planned Development**

The overall planning and design concepts of mixed tenure and planned community appear to have been successful.

- The multi-ethnic character of NZHF Glen Eden is viewed positively, making minority groups common place rather than the exception. There may be questions over how well this might translate into larger scale developments where the ethnic composition may come to more closely reflect that of the general population and the intimacy of a modest neighbourhood is lost.
- Mixed tenure does not emerge as an issue. Residents are generally unaware of the nature of and indifferent to the tenancy of their neighbours.
- Some occupants of social housing, however, were aware of the opportunities to move on to home ownership through the Auckland Community Housing Provider Network. The marginalisation of renting minorities that can create tensions was not noted at NZHF Glen Eden.
- As ownership patterns mature over time, owners may choose to rent or on-sell their properties to potential landlords. Tenure-based differences may then become more apparent and undermine the coherence of the existing community. This risk no doubt justifies the NZHF policy of buying back properties as residents sell.
- The importance of design features such as no front fences and curved rather than grid style streets is less easy to determine. However a strong community spirit has developed which suggests the layout and design of NZHF Glen Eden has avoided significant physical barriers to community interaction.

A strong sense of place is also important. The “one road in and one road out” connection to Glen Eden Road via Woodbank Road, site location between two streams and associated green areas contribute to this at NZHF Glen Eden. The character and quality of the setting and the sense of boundaries around it suggest an urban village in the making.

### **Lessons for Social Housing**

NZHF Glen Eden accommodates social housing owned by other agencies many of which operate rental-based models of provision. It is also adjacent to a tract of public housing at Albionvale. The current research may provide pointers for other social providers:

- The Salvation Army enclave is not mixed (nearly all white, similar age, and described by one person as having similar backgrounds); residents there are happy but resist use of their street by others in adjacent streets. Some of these residents are physically vulnerable and may have been better located away from a perceived high crime area (ie Albionvale).

- If there is cul de sac with a distinctly homogeneous resident population (such as elderly people) within a development such as NZHF Glen Eden may it may be better to design it so that it is not used as a thoroughfare by residents from elsewhere.
- There is a need to ensure suitability of housing for purpose. The area identified as housing for the elderly (although many are less than 60) includes older people living in two storey homes.
- It may be appropriate to encourage other providers to offer potential tenants homes in more heterogeneous communities as this may provide greater satisfaction for some.

## 6.0 Monitoring Quality of Life

NZHF plan to monitor quality of life in its developments in the future.

This research has been designed to provide the framework and tools for NZHF to carry out this monitoring. The next stage of the research is to produce the tools for future monitoring.

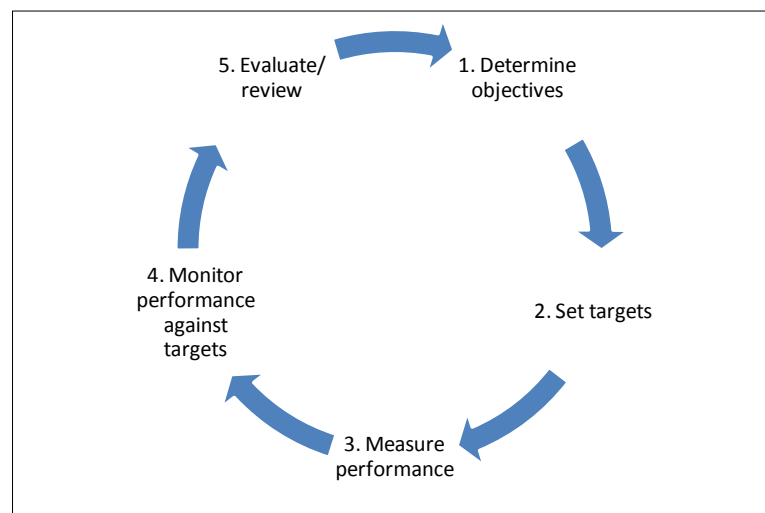
We anticipate the following method for future monitoring:

1. Ask all people who take up a property to fill in a survey prior to or soon after moving in. This will provide a benchmark measure of quality of life in the preceding year.
2. At 12 monthly (or 2 yearly) intervals, ask residents to complete a follow up survey to track changes in quality of life.

The benchmark and on-going surveys will use the structure identified in the model as a way of understanding the impact of housing on Quality of Life.

It may be helpful for NZHF to follow a standard model of performance management which starts with objective setting (including specified targets) and follows with monitoring progress and review processes where necessary (Figure 42).

**Figure 42. Performance Management Cycle**



**Source:** CIMA (2000). Performance Management for Best Value Provision of Central Support Services, Chartered Institute of Management Accountants.

In the case of NZHF Glen Eden, the NZHF may chose to set targets for the various Intermediate Outcomes and develop strategies to achieve them in the meantime. This does imply a continued role in management which may or may not be envisaged.

There may be additional indicators which could be established, such as property values, the progression of renters to ownership, the turnover of occupants, observed environmental standards in the area and reported crime. These may be early indications of how the 2-yearly monitoring of Quality of Life will turn out.

## 7.0 Appendices

### Questionnaires

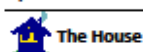
#### NZHF Household Survey



##### Living in Glen Eden Survey

Hi. Thank you for taking the time to do this survey! Are you the home owner or, if you are renting, is the rental agreement in your name? If so, this survey is for you. If not, could you pass this survey on to the right person.

A quick reminder – this survey is confidential. We do not tell the NZ Housing Foundation or any other organisation who we speak to or what you said. If you have any questions, please call Julie or Richard at Nexus Research on 09 3098390.



##### The House

1. How long have you been living at this address? *Tick one only*

Less than one year	
One to two years	
More than two years	

2. How many bedrooms does the house have? *Tick one only*

2 bedrooms	
3 bedrooms	
4 bedrooms	
5 bedrooms	

3. Do you use other areas of the house for sleeping on a regular basis? If so which areas?

*Tick all that apply*

Lounge	
Garage	
Don't use other areas for sleeping	

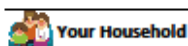
4. How would you rate each of the following in meeting your household's needs?

	Excellent	Very good	Good	Fair	Poor
Number of bedrooms					
Living / dining room					
Kitchen					
Privacy					
Outdoor living & garden					
Open or green outlook					
Sunny					
Warm					
Dry (i.e. not damp)					
Affordable to heat					
Good quality fixtures & fittings					

5. Overall, how would you rate the house in terms of meeting your household's needs?

*Tick one only*

Excellent	
Very good	
Good	
Fair	
Poor	



##### Your Household

6. How many people in each age group live with you?

Age	For example	Write in number of people in each age group (including yourself)
0 to 4		
5 to 9		
10 to 13		
14 to 17		
18 to 21		
22 to 29		
30 to 49		
50 to 64		
65+		

Please check that the total adds up to the number of people who live in your home.

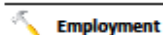
7. Which group/s do people in your household belong to?

*Tick all that apply*

European	
Maori	
Pacific Island people (please write in which PI people)	
Other (please write in what group/s)	

8. Does anyone in your household rely on public transport (e.g. buses, trains) for getting around? *Tick one only*

Yes	
No	



##### Employment

9. How many people in the household are in paid employment? Please exclude any borders.

No one is in paid employment	
1 person	
2 people	
3 or more people	

10. Overall, how satisfied are you with your household's work-life balance? If no one in the house is in paid employment you can skip this question. *Tick one only*

Very satisfied	
Satisfied	
Neither/nor	
Dissatisfied	
Very dissatisfied	



## Income & Housing Costs

- 11.** What is your household income (after tax)? Please do not include income of older kids or borders unless it contributes to rent, the mortgage or your household expenses.

Write in weekly amount here: \_\_\_\_\_ or Write in monthly amount here: \_\_\_\_\_

- 12.** How often to you experience stress in relation to how well your income meets your household's everyday needs? *Tick one only*

Always	
Most of the time	
Sometimes	
Rarely	
Never	

*Shared owners and Owners please answer Q14*

- 14.** How much do you pay each fortnight or month towards your mortgage?

Please write in: \_\_\_\_\_ per fortnight  
OR \_\_\_\_\_ per month

- 16.** How would you rate your security of tenure? By this we mean your ability to remain in the house for as long you want to. *Tick one only*

Excellent	
Very good	
Good	
Fair	
Poor	

- 18.** Did the NZ Housing Foundation discuss or help you with your financial goals?

Yes	
No	
Not applicable	

- 20.** Overall, how would you rate your current financial position? *Tick one only*

Excellent	
Very good	
Good	
Fair	
Poor	

- 13.** Are you ...

*Tick one only*

An owner	
A shared owner	
In the Home Equity programme	
A renter	
Other (please write in)	

*Renters & those in the Home Equity programme please answer Q15*

- 15.** How much do you pay each week for rent?

Please write in: \_\_\_\_\_ per week.

- 17.** In which of the following ways, if any, are you saving?

*Tick all that apply*

Kiwisaver	
Paying more than minimum principle off mortgage	
Other savings such as savings in a bank account	
Not saving / not able to save	
Other	

- 19.** How well are you achieving your financial goals? *Tick one*

Very well	
Quite well	
Not very well	
Not at all well	
Don't have financial goals	

- 21.** Do you think that in moving to this home your long-term financial situation will ... *Tick one only*

Improve	
Stay the same	
Worsen	
Don't know	



## Health

- 22.** Does anyone in your household have mobility or health needs which affect your housing requirements?

Yes		If yes, go to Q23
No		If no, skip to Q24

- 24.** In general, how would you rate your household's health? *Tick one only*

Excellent	
Very good	
Good	
Fair	
Poor	

- 23.** Does the housing design and location help you to live independently or to cope with your health needs?

Yes – a lot	
Yes – a little	
No	

- 25.** How would you rate your house in helping keep winter illnesses such as colds, flu and respiratory illnesses to a minimum? *Tick one only*

Excellent	
Very good	
Good	
Fair	
Poor	



**Education** - If you do not have children aged between 5 and 21 living with you, please skip to Q29.

- 26.** Has your child's/children's attendance of school or further education improved, stayed the same or worsened compared to 3 years ago?

Your Child/ Children's age/s	Improved	Stayed the same	Worsened
5 to 9 years			
10 to 13 years			
14 to 15 years			
16 to 17 years			
18 to 21 years			

- 27.** And, has your child's/children's achievement at school or further education improved, stayed the same or worsened compared to 3 years ago?

Your Child/ Children's age/s	Improved	Stayed the same	Worsened
5 to 9 years			
10 to 13 years			
14 to 15 years			
16 to 17 years			
18 to 21 years			

- 28.** Can you tell us what makes you say this? Please write them here.



### Your Location

- 29.** How would you rate your home's location in terms of having access to...

	Excellent	Very good	Good	Fair	Poor
Good quality schools					
Shops					
Leisure and recreation activities					
Opportunity for exercise					
Healthcare and other services					
Public transport					
Having friends or relatives visit you or you them					
Being close to or having easy access to work					



You're half way there



### Your Community

- 30.** Thinking about where you live, do you know ...

Many people	
A few people	
One or two people	
Do not know any people	

- 31.** Do you chat or greet your neighbours? *Tick one only*

Yes	
No	

- 32.** How strongly do you agree or disagree with the following?

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
This is a friendly neighbourhood					
It's important to me to feel a sense of community with people in my local neighbourhood					
I feel a sense of community with others in my local neighbourhood					

- 33.** How would you rate your community in terms of ...

	Excellent	Very good	Good	Fair	Poor
Being a safe neighbourhood					
Being a crime free neighbourhood					
People are willing to help their neighbours					
Being quiet and noise free					
Having safe places for children to play					
Having tidy & well maintained homes					

- 34.** Your neighbourhood is home to a number of people with different lifestyles and cultures. Do you feel this makes it...

A much better place to live	
A better place to live	
Makes no difference	
A worse place to live	
A much worse place to live	

- 35.** In the past 12 months, how many neighbourhood events or meetings have you (or your household) attended?

None	
1	
2	
3 or more	



## Overall

36. Overall, how would you rate your community as a place to live? *Tick one only*

Excellent	
Very good	
Good	
Fair	
Poor	

38. Has there been a change in your life that has had a negative impact on your quality of life since moving to this house? This could include a change in your health, a job loss or other major event.

Yes	
No	

40. Which statement best reflects your intentions within the next few years? *Tick one only*

I do not intend to move within the next few years	
I intend to move because this house is not suitable	
I intend to move because of the neighbourhood	
I intend to move because of other reasons	

37. The next question concerns your overall quality of life. Would you say that your overall quality of life is...

Extremely good	
Good	
Neither poor nor good	
Poor	
Extremely poor	

39. Overall, how do you feel about your decision to live in this house? Would you say it was a ... *Tick one only*

Very good decision	
Good decision	
Neither good nor bad	
Bad decision	
Very bad decision	

41. Please tell us how much you agree or disagree with each of the following statements. Home ownership is important to me/us because it...

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Gives a sense of permanence and security					
Is doing the best thing for my/our future					
Is an important goal for me/us					



## Before moving to this neighbourhood

Please answer this section thinking about what life was like when you were living in your previous home. If you were there for a long time, please think about the last year you were there.

42. How long did you live at your previous address?

Less than one year	
One to two years	
Two to five years	
5+ years	

43. What was the main reason you left your previous home? *Tick one only*

The landlord asked us/me to move out	
We/I had to move for financial reasons	
Offered a good opportunity here	
I/we had nowhere else to live	
Needed to move for mobility/health reasons	
Other (please write in)	

44. When living in your previous home, what was your household income (after tax)? Your best estimate is fine.

Please write in weekly amount here \_\_\_\_\_ or Please write in monthly amount here \$ \_\_\_\_\_

45. And how much did you pay each week for rent? Your best estimate is fine.

Please write in weekly rent amount here \$ \_\_\_\_\_

46. When living in your previous house, how often did you experience stress in relation to how well your income met your household's everyday needs?

Always	
Most of the time	
Sometimes	
Rarely	
Never	

47. When living in your previous house, how well did you achieve your financial goals? *Tick one only*

Very well	
Quite well	
Not very well	
Not at all well	
Didn't have financial goals	



Just about finished



- 48.** And how would you have rated your overall financial position when living in your previous home? *Tick one only*

Excellent	
Very good	
Good	
Fair	
Poor	

- 49.** Still thinking about when you were living in your previous home, how would you rate ...

	Excellent	Very good	Good	Fair	Poor
The <u>house</u> in terms of meeting your household's needs					
The <u>location</u> in terms of having friends or family visit you or you them					
The location in providing opportunity for exercise					
Your ability to remain in the house for as long as you wanted					

- 50.** How would you rate your previous house in terms of ...

	Excellent	Very good	Good	Fair	Poor
Your household's health (in general)					
Keeping winter illnesses such as colds, flu and respiratory illnesses to a minimum					

- 51.** Did your previous house design and location help you to live independently or to cope with your health needs?

*Tick one only*

Yes – a lot	
Yes – a little	
No	
Not applicable	

- 52.** Thinking about your previous house, did you know ...

*Tick one only*

Many people	
A few people	
One or two people	
Did not know any people	

- 53.** In the last 12 months in which you lived in your previous house, how many neighbourhood events or meetings did you (or someone in your household) attend? *Tick one only*

None	
1	
2	
3 or more	

- 54.** Do you agree or disagree that you "felt a sense of community with others" in your previous neighbourhood? *Tick one only*

Strongly agree	
Agree	
Neither agree nor disagree	
Disagree	
Strongly disagree	

- 55.** Thinking about your previous house, how would you rate...

	Excellent	Very good	Good	Fair	Poor
People willing to help their neighbours					
Being a safe neighbourhood					
The overall community as a place to live					

- 56.** When you were living in your previous home, would you say that your overall quality of life was ... *Tick one only*

Extremely good	
Good	
Neither good nor poor	
Poor	
Extremely poor	

- 57.** Are there any other comments you would like to make? Please write them here:



**You made it to the end!**

Thank you - it is much appreciated. Good Luck with the prize draw.

Please tell us your name and phone number. This will be used to contact you should you win one of the prizes. We will also call you if there is anything we need to clarify. The prize will be drawn on the 14<sup>th</sup> December and the winner notified by telephone or email on that day.

Name	
Phone or email	

Living in Glen Eden Survey

Thank you for taking the time to do this survey! Are you the home owner or, if you are renting, is the rental agreement in your name? If so, this survey is for you. If not, could you pass this survey on to the right person.

This survey is confidential. We do not tell anyone who we speak to or what you said.

Rather do the survey online? Go to [www.npr.co.nz/gleneden](http://www.npr.co.nz/gleneden) (all lower case). Only one completed survey (either paper or online) is needed per household. If you have any questions, please call Julie or Richard at Nexus Research on 09 3098390.



Your House and Household

Please answer all questions

1. How long have you been living at this address?

Tick one only

Less than one year	
1 to 2 years	
2 to 5 years	
More than 5 years	

2. Overall, how would you rate the house in terms of meeting your household's needs?

Tick one only

Excellent	
Very good	
Good	
Fair	
Poor	

3. How many people in each age group live with you?

Age	For example	Write in number of people in each age group (including yourself)
0 to 4		
5 to 9	1	
10 to 13	1	
14 to 17		
18 to 21		
22 to 29		
30 to 49	2	
50 to 64		
65+		

Please check that the total adds up to the number of people who live in your home.

4. Which group/s do people in your household belong to?

Tick all that apply

European	
Maori	
Pacific Island people (please write in which PI people)	
Other (please write in what group/s)	

5. Does anyone in your household rely on public transport (e.g. buses, trains) for getting around?

Tick one only

Yes	
No	



Employment

6. How many people in the household are in paid employment? Please exclude any borders.

No one is in paid employment	
1 person	
2 people	
3 or more people	

- 7b. Since moving to this house, have the income earners been in steady employment?

Tick one only

Yes	
No	
Some in household have, some haven't	
Not applicable	

- 7a. Overall, how satisfied are you with your household's work-life balance? If no one in the house is in paid employment you can skip this question and go to Q8.

Tick one only

Very satisfied	
Satisfied	
Neither/nor	
Dissatisfied	
Very dissatisfied	



Income & Housing Costs

8. What is your household income (after tax)? Please do not include income of older kids or borders unless it contributes to rent, the mortgage or your household expenses.

Write in weekly amount here: \_\_\_\_\_ or Write in monthly amount here: \_\_\_\_\_

9. How often do you experience stress in relation to how well your income meets your household's everyday needs?

Tick one only

Always	
Most of the time	
Sometimes	
Rarely	
Never	

10. Are you ...

Tick one only

An owner	
A renter	
Other (please write in)	

Owners please answer Q11

11. How much do you pay each fortnight or month towards your mortgage?

Please write in: \_\_\_\_\_ per fortnight

OR \_\_\_\_\_ per month

13. How would you rate your security of tenure? By this we mean your ability to remain in the house for as long you want to. *Tick one only*

Excellent	
Very good	
Good	
Fair	
Poor	

15. Overall, how would you rate your current financial position? *Tick one only*

Excellent	
Very good	
Good	
Fair	
Poor	

17. Do you think that by moving to this home your long-term financial situation will ... *Tick one only*

Improve	
Stay the same	
Worsen	
Don't Know	

Renters please answer Q12

12. How much do you pay each week for rent?

Please write in: \_\_\_\_\_ per week.

14. In which of the following ways, if any, are you saving? *Tick all that apply*

KiwiSaver	
Paying more than minimum principle off mortgage	
Other savings such as savings in a bank account	
Not saving / not able to save	
Other	

16. How well are you achieving your financial goals? *Tick one*

Very well	
Quite well	
Not very well	
Not at all well	
Don't have financial goals	



You're half way there



#### Health

18. Does anyone in your household have mobility or health needs which affect your housing requirements?

Yes		<i>If yes, go to Q19</i>
No		<i>If no, skip to Q20</i>

20. In general, how would you rate your household's health? *Tick one only*

Excellent	
Very good	
Good	
Fair	
Poor	

19. Does the housing design and location help you to live independently or to cope with your health needs?

Yes – a lot	
Yes – a little	
No	

21. How would you rate your house in helping keep winter illnesses such as colds, flu and respiratory illnesses to a minimum? *Tick one only*

Excellent	
Very good	
Good	
Fair	
Poor	



Education - If you do not have children aged between 5 and 21 living with you, please go to Q25.

22. Has your child's/children's attendance of school or further education improved, stayed the same or worsened compared to 3 years ago?

Your Child/ Children's age/s	Improved	Stayed the same	Worsened
5 to 9 years			
10 to 13 years			
14 to 15 years			
16 to 17 years			
18 to 21 years			

23. And, has your child's/children's achievement at school or further education improved, stayed the same or worsened compared to 3 years ago?

Your Child/ Children's age/s	Improved	Stayed the same	Worsened
5 to 9 years			
10 to 13 years			
14 to 15 years			
16 to 17 years			
18 to 21 years			

24. Can you tell us what makes you say this about your children's education? Please write them here.



### Your Location

25. How would you rate your home's location in terms of ...

	Excellent	Very good	Good	Fair	Poor
Providing opportunity for exercise					
Having friends or relatives visit you or you them					



### Your Community

26. Thinking about where you live, do you know ...

Many people	
A few people	
One or two people	
Do not know any people	

27. In the past 12 months, how many neighbourhood events or meetings have you (or your household) attended?

None	
1	
2	
3 or more	

28. How strongly do you agree or disagree with the following?

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
It's important to me to feel a sense of community with people in my local neighbourhood					
I feel a sense of community with others in my local neighbourhood					

29. How would you rate your community in terms of ...

	Excellent	Very good	Good	Fair	Poor
Being a safe neighbourhood					
People are willing to help their neighbours					



### Overall

30. Overall, how would you rate your community as a place to live? *Tick one only*

Excellent	
Very good	
Good	
Fair	
Poor	

31. The next question concerns your overall quality of life. Would you say that your overall quality of life is...

Extremely good	
Good	
Neither poor nor good	
Poor	
Extremely poor	

32. Which statement best reflects your intentions within the next few years? *Tick one only*

I do not intend to move within the next few years	
I intend to move because this house is not suitable	
I intend to move because of the neighbourhood	
I intend to move because of other reasons	

34. Are there any other comments you would like to make? Please write here:



*You made it to the end!*

Thank you - it is much appreciated.



Good Luck with the prize draw.

Please tell us your name and phone number. This will be used to contact you should you win one of the prizes (3 chances to win a \$100 Christmas hamper). We will also call you if there is anything we need to clarify. The prize will be drawn on the 14<sup>th</sup> December and the winner notified by telephone or email on that day.

Name	
Phone or email	

## Regression Analysis – Technical Details

The regression analysis aims to provide insight on which of the changes (e.g. changes in health, changes in community life etc) experienced by residents since moving to NZHF Glen Eden are most strongly associated with improved quality of life.

The Relative Importance measure used is based on each factors ability to explain changes in quality of life. This was calculated by averaging  $R^2$  for each factor over all positions in the Least Squares regression model.

The analysis was carried out using the following method.

1. Calculation of the Changed Quality of Life (dependent variable). The dependent variable was, rating of quality of life since moving to NZHF Glen Eden minus rating of quality of life when living in the previous home. This variable was then standardized.
2. Our theoretical model identified six Intermediate Outcomes expected to respond to quality housing. These were:
  - Relationships with family and friends
  - Work and financial prospects
  - Health
  - Educational outcomes
  - Community life
  - Sense of security and comfort

An early step in the analysis was to identify which of these factors would be included in the regression analysis.

Due to the complexity of the questions around educational outcomes (educational outcome was rated separately for each child making determination of whether the household had improved or stayed the same problematic). This factor was omitted from the regression analysis.

Financial prospects and employment stability were separated into two factors. This is because a number of residents reported weaker work stability but an improved financial position. For the purposes of the regression analysis the decision was taken to separate these into two factors.

Long-term financial expectations were not included as this variable had a low positive correlation ( $r=.18$ ) whereas other financial variables were negatively correlated with quality of life; it also had a high level of missingness.

The table below shows the factors used in the regression analysis and the questions which contributed to them. Below we have just shown the question which asks about the *current* experience, but an equivalent question focusing on the *previous* experience was also asked. In each case the rating of the previous experience was subtracted from the current experience to give a measure of the change in experience.

**Table 5. Questions Contributing to each Factor used in Regression**

<b>Factor</b>	<b>Questions</b>
<b>Relationships with family and friends</b>	How would you rate your home's location in terms of having ... friends or relatives visit you or you them
<b>Work stability</b>	Since moving to this house, have the income earners been in steady employment?
<b>Financial prospects</b>	How often to you experience stress in relation to how well your income meets your household's everyday needs? Overall, how would you rate your current financial position?
<b>Health</b>	How would you rate your house in helping keep winter illnesses such as colds, flu and respiratory illnesses to a minimum? In general, how would you rate your household's health? How would you rate your home's location in terms of having ... opportunity for exercise
<b>Community life</b>	Thinking about where you live, do you know ... Many people to ... Do not know any people How strongly do you agree or disagree with ... I feel a sense of community with others in my local neighbourhood How would you rate your community in terms of ... being a safe neighbourhood How would you rate your community in terms of ... people are willing to help their neighbours In the past 12 months, how many neighbourhood events or meetings have you (or your household) attended? None to 3 or more
<b>Sense of security and comfort</b>	Overall, how would you rate the house in terms of meeting your household's needs? How would you rate your security of tenure? By this we mean your ability to remain in the house for as long you want to?

Standardized indexes were created for each factor. This ensured that no factor would be more influential than any other factor due to differences in magnitude.

- Two cases were removed from the analysis: one due to missing data for the quality of life question; the other was removed from the analysis as it was an outlier and had a large impact on the regression coefficients.
- As expected the factors (independent variables) were correlated. This makes calculation of an individual factors's contribution to the dependent variable problematic. As such relative importance was calculated using a method proposed by Linderman, Merenda and Gold's<sup>14</sup>. This approach allows us to estimate an individual regressor's influence (or contribution) to the dependent variable by averaging  $R^2$  over all orders of the factors in the model. The figures reported have been summed to 100%.

<sup>14</sup> Gromping, U (2006). Relative importance for line regression in R: The Package relaimp. Journal of Statistical Software.