



## **Retirement Village Housing Resilience Survey**

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## 1. INTRODUCTION

Retirement villages contribute a small but growing proportion of New Zealand's dwelling stock. This survey suggests that there are about 25,600 older people living in RVA member and registered retirement villages. The total number of retirement village units stands at around 24,000 dwellings. That is, about 1.5 percent of New Zealand's private housing stock. This survey suggest that about 4.2 percent of people aged 65 years or more are living in retirement villages. This is slightly less than the 4.5 percent penetration assumed in the New Zealand Retirement Village Database (NZRVD). The NZRVD assumes a penetration rate among those aged 75 years or more of 10.5 percent in 2013.<sup>1</sup>

The retirement village sector is made up of a diversity of entities including public companies listed on the New Zealand stockmarket (NZX). The publically listed companies, Ryman, Summerset and Metlifecare, are strongly in expansionary mode with all those companies announcing stock additions. Ryman has recently acquired a Birkenhead site in Auckland and has told shareholders that it intends to announce four more sites in 2014. Summerset is targeting the delivery of at least three hundred new units annually while Metlifecare is intending the delivery of around 840 additional units in the short term. Between them Summerset and Metlifecare deliver about 5,450 units. The NZRVD 2013 forecasts include over 10,000 additional units across the sector and around forty new villages in development yet to be registered.

Only a minority of older people move into retirement villages. Those who do are most likely to have been owner occupiers. The attraction of a retirement village is fourfold:

- Companionship.
- Access to a higher performing and newer dwelling than their existing home.
- A less onerous lifestyle in which individuals can choose not to be involved in home or garden maintenance and, possibly, cooking and other household tasks, while accessing 'on-the-spot' recreational amenities and maintaining independence.
- A safe and secure environment.<sup>2</sup>

These themes are also prominent in the advertising that retirement villages themselves promulgate. The sector presents itself to its market as delivering a lifestyle while simultaneously providing older people support and independence, and an environment which is managed but over which older people can exercise choice.

The combination of an independent life with a managed environment raises some very real issues within the context of planning, preparation and recovery from adverse natural events. Where does the boundary between the responsibilities of the individual resident and the village lie? How clear is that boundary? And what are the implications for the preparation of residents, appropriate response during an adverse event and recovery from such adverse events?

Of course these issues were thrown into stark relief by the Canterbury earthquakes. The particular touch point then was the issue of insurance cover, the extent to which residents or a retirement village owner was the beneficiary of insurance compensation, and how and for what purpose insurance compensation could be used. In 2013 new

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<sup>1</sup> Jones Lang LaSalle, 2013.

<sup>2</sup> James, B. and K. Saville-Smith, 2011.

requirements were imposed on retirement villages to make those arrangements, and their implications for residents, transparent.

There has been less focus on understanding how residents within retirement villages or retirement village operators deal with the issues of preparedness and planning for adverse natural events. Yet retirement villages present both opportunities for effective response and very particular challenges. The enclave nature of villages can be a strength in so far as they can constitute a space in which individual residents may have longstanding interactions and friendships with other village residents. Such networks in the wider community have been found in emergencies like the Canterbury earthquakes to be crucial to first response and on-going support. Many retirement villages also have communal facilities that might potentially provide safe alternative, emergency, short-term shelter in the event that one or more dwellings require evacuation. While neighbourhoods rely on voluntary neighbourhood support for any collective response to an adverse natural event, retirement villages have onsite staff and many have residents committees.

There are, however, also challenges. First, while it is assumed that retirement villages are akin to stable-state villages, this is not the case. Residential churn is generated by both entry of new residents and exit by others. Residents can move to other accommodation within the village or move out of the village entirely. Of course, retirement villages, like any locality, lose residents because of deaths. Most importantly, however, many retirement villages are subject to considerable expansion with the addition of dwellings as well as facilities for rest home or hospital level care. Where there is staged development of retirement villages it cannot be assumed that there is a high degree of familiarity between residents within the village.

Retirement villages also present a challenge because they typically have more intensified dwelling densities than surrounding neighbourhoods. As such they constitute significant concentrations of older people. Older people can bring a range of skills useful to adverse event preparation, response and recovery. Research internationally also shows that older people can be very vulnerable to adverse natural events such as storms, flooding and extreme heat or cold.<sup>3</sup> The age uniformity of the resident population and the tendency for some retirement villages to be enclaved and separated from surrounding neighbourhoods mean that the dynamics of response in retirement villages are likely to be different from the dynamics of response in neighbourhoods.

The growth of retirement villages and their potentialities and as well as challenges in adverse events have prompted this component of the research programme into older people and community resilience – *Resilient Communities: Older People Doing Better in Bad Times*. This report presents data generated by a national survey of retirement villages. It details their experiences and how they are approaching the prospects of adverse natural events at the village scale. It is structured as follows:

- Section 2 sets out the objectives of the *Resilient Communities: Older People Doing Better in Bad Times* and the method for the retirement village survey.

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<sup>3</sup> AARP Public Policy Institute, 2006; Ardalan, A. Mazaheri, M. Vanrooyen M. Mowafi, H. Nedjat, S. Holakouie Naiei, K and Russell, M., 2010; Carswell, S., 2011; CDC Healthy Aging Program, 2006; HelpAge International, 2008; Miller, A., and B. Arquilla, 2008; Reese, S., Johnston, D., Tuohy, R., Becker, J., and M. Coomer, 2011; World Health Organization, 2008.

- Section 3 profiles the retirement villages participating in the national survey.
- Section 4 presents data relating to the experience of adverse natural events among the retirement villages participating in the national survey.
- Section 5 focuses on the way in which retirement villages approach planning, preparation and response to adverse natural events.
- Section 6 makes some broader comments on the inter-relationship between resident and retirement village expectations and responsibilities in the context of adverse events.

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## 2. PROGRAMME CONTEXT, OBJECTIVES AND METHOD

The *Resilient Communities: Older People Doing Better in Bad Times* recognises that New Zealand is a vulnerable landscape in which our communities are often affected by adverse natural events. The 2010/11 Canterbury and 2013 Cook Strait earthquakes have heightened awareness of the impacts of earthquakes. But communities and individuals are also frequently exposed to events such as flooding, coastal inundation, heavy snow, land subsidence and storms. Sometimes the impacts of those events are limited to small numbers of people or relatively low levels of inconvenience and damage. In other situations, damage can be extensive and individuals and communities can become isolated and without access to basic amenities, particularly electricity for days. In those times, individuals and communities are often, for some time at least, on their own. Staying safe during adverse natural events is only one part of what can be a long road to recovery for individuals and communities. Even where events have affected very small communities the impacts can be profound.

This research programme focuses particularly on weather related adverse events. This is partly because there is already a considerable platform of research around and attention given to the impact of earthquakes. It is partly because weather related events make up the bulk of events to which people in New Zealand are exposed. Between 1920 and 1983, New Zealand had 935 severe floods. From 1968 to 2011, 94 percent of insurance claims related to events other than earthquakes. Over the two years of this research programme there have been at least seven major weather events.

The research is not, however, primarily about adverse natural events. It is about how older people can both assist their communities to be more resilient and be assisted to recover more quickly with the least cost to themselves and others from those events. It has been prompted by a number of factors. Firstly, the structural ageing of New Zealand's population means that older people are going to constitute increasingly higher proportions of the populations of many local communities. The resilience and recovery of communities are, consequently, going to depend more and more on the skills and resilience of older people themselves. Second, there is substantial evidence that older people can be particularly vulnerable to injury and negative health impacts associated with adverse events. Third, adverse events can precipitate older people's movement into higher dependency living to the loss of their communities.

### 2.1 Programme Objectives and Components

The goal of *Resilient Communities: Older People Doing Better in Bad Times* is to encourage the development of community resilience through older people having support and services to help themselves and their communities respond to, and recover from adverse natural events, such as floods, slips, bushfire, earthquakes, coastal hazards and extreme weather. The aim is to provide research that will contribute to older people, their communities, and agencies working to:

- Reduce the risk of older people taking up costly, high dependency care or being displaced from their communities as a result of adverse events;
- Realise the potential of older people to actively support community responses and restoration during and subsequent to adverse events; and
- Retain the social and economic contribution older people make to communities when they age in place and experience positive ageing despite adverse events.



The research is designed to do this by:

- Helping stakeholders and older people themselves to understand the vulnerabilities of older people in adverse natural events;
- Identifying ways to integrate models and services for positive ageing and community resilience into adverse event planning, response, and recovery; and
- Developing resources to allow older people to make their dwellings resilient and optimise their financial and accommodation security during and after adverse natural events.

The research is organised around six key questions and three objectives set out below.

How vulnerable are NZ's older people to adverse natural events such as storms, floods, slips and seismic events and are their needs and expertise integrated into community responses? What factors push older people from their homes because of adverse, natural events into higher dependency and disengage them from their communities and what are the implications of displacement?	<b>Objective 1: Older People &amp; Communities: Resilience in Adverse Events</b> To enhance outcomes of communities and older people dealing with adverse natural events by establishing the: (a) vulnerabilities of older people to adverse natural events when living in the community; (b) extent to which adverse response and recovery plans recognise particular needs and potential contributions of older people; (c) extent to which older people's services integrate adverse event crisis and recovery.
How can positive ageing models and services be integrated into community resilience? How can older people be engaged in community resilience planning and what is the potential of digital and smart technologies and capability building to improve outcomes for older people and their communities in the context of adverse events?	<b>Objective 2: community resilience: smart people, smart plans, smart technologies:</b> to realise older people's potential to self-help and contribute to community crisis and recovery by: (a) identifying ways to integrate positive ageing and community resilience models to meet adverse natural events; (b) developing and testing processes for crisis and recovery planning with older people and key agencies in rural, provincial and urban settings; (c) assessing technological solutions to locating and responding to older people living in the community; (d) developing and testing resource kits for capability building among older people and key sectors responding to older people in adverse events.
What dwellings protect older people during adverse, natural events and how can restoration costs and time be reduced to enable older people to resume active lives within their communities? What income, financial and insurance products and assistance do older people need to secure their quality of life given the risks of hard to predict, severe adverse events impacting on their community?	<b>Objective 3: Securing Older People's Futures: Dwellings that Protect &amp; Optimise Recovery:</b> To improve older people's futures after adverse events: (a) through dwelling materials, design and critical systems that better protect older people in adverse events and easier and more affordable restoration of dwellings; and (b) protecting older people's financial and living security by enabling older people in different tenures to make effective choices and investments in their financial and accommodation security.

## 2.2 The National Survey of Retirement Villages

The survey of retirement villages was undertaken using a self-complete structured questionnaire (Annex A). The survey consists of 23 mostly closed-ended questions with opportunities for further comment. The data collected in the survey includes the number of residents and units within each village, village locations and site proximity to rivers, streams and coasts, the experiences of past adverse natural events, and aspects of planning and process that shape the way in which retirement villages approach preparation, planning, recovery and resilience.

Not all developments targeting older people are registered retirement villages. There are 351 retirement villages registered with the New Zealand Companies Office.<sup>4</sup> Among the registered retirement villages, almost 80 percent were fully accredited or provisional members of the Retirement Villages Association (RVA).<sup>5</sup> In relation to retirement village units, it is estimated that 95 percent are delivered by retirement villages that are members of the RVA.

The national survey was undertaken with RVA members. The survey targeted the retirement village itself not the corporate operators of retirement villages, although in some cases the national office of some operators co-ordinated their villages' responses or provided the data sought through the survey for each of their villages. With the help of the RVA, 287 retirement villages were identified with suitable surveying contacts.

Of the 287 retirement villages invited to participate in the survey, 189 villages completed a survey return. Of the remainder, four villages were not currently operating. One of those retirement villages was in a post-earthquake red zone in Christchurch and was unable to be occupied or rebuilt. One was still under construction, and two were no longer providing retirement village accommodation. Nine villages refused, and the remaining villages did not supply a response within the survey period. The response rate is 65.9 percent.

This high response rate can be attributed to the receptivity of retirement village managers to whom the survey was addressed, the support of the RVA, the structure of the questionnaire, and the considerable effort put into follow-up with retirement villages. Where requested, villages were re-sent hard copy or electronic copies of surveys and in a small number of cases surveys were completed over the phone. A number of individual villages referred the survey to their head office and two of the corporate group villages chose to answer some or all of the survey questions on behalf of their villages.

Surveying was completed over September and October 2013. All questions were pre-coded and analysed in SPSS using both univariate and bivariate analysis.

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<sup>4</sup> Jones Lang LaSalle, 2013.

<sup>5</sup> Martin Jenkins, 2010a.

### 3. THE RETIREMENT VILLAGES

This section is concerned with the profile of retirement villages with a particular emphasis on their stock numbers, building typologies, tenure mechanism, amenities and the number of residents living within retirement villages. The numbers of dwelling stock and, therefore, the people residing in a village is indicative of the considerable diversity of retirement villages across the sector. The tenure mechanisms used by retirement villages and the stock profile of retirement villages shows some similarity across the sector irrespective of retirement village size.

#### 3.1 Geographical Distribution of Retirement Villages

The participating retirement villages have a geographical profile similar to the distribution of RVA member retirement villages throughout New Zealand (Table 3.1).

**Table 3.1: Participant Retirement Villages by Region**

Region	Retirement Villages	% Retirement Villages	Participating Retirement Villages	% Participating Retirement Villages
Northland	10	3.5%	7	3.7%
Auckland	60	20.9%	41	21.7%
Waikato	22	7.7%	15	7.9%
Bay of Plenty	39	13.6%	24	12.7%
Gisborne	4	1.4%	4	2.1%
Hawkes Bay	12	4.2%	7	3.7%
Taranaki	10	3.5%	9	4.8%
Manawatu/Wanganui	22	7.7%	12	6.3%
Wellington	24	8.4%	19	10.1%
Nelson/Tasman	10	3.5%	6	3.2%
Marlborough	8	2.8%	3	1.6%
West Coast	0	0.0%	0	0.0%
Canterbury	52	18.1%	29	15.3%
Otago	9	3.1%	8	4.2%
Southland	5	1.7%	5	2.6%
<b>Total</b>	<b>287</b>	<b>100.0%</b>	<b>189</b>	<b>100.0%</b>

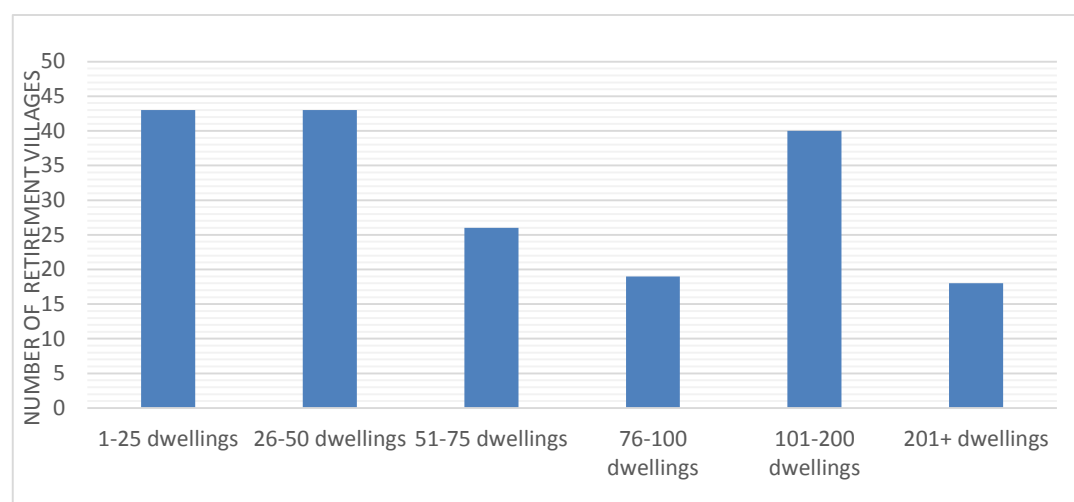
Of the 189 participant retirement villages nearly three-quarters (73 percent) are located in the North Island with the majority located in Auckland and the Bay of Plenty. Although retirement villages tend to be enclaved, most are built within the outer suburbs or proximate to urban settlements. Of the retirement villages participating in the national survey, 88.4 percent reported that public transport is within a ten minute walk of the retirement village.

#### 3.2 Stock Numbers and Resident Populations

Collectively the villages in this survey deliver 15,623 units to the national dwelling stock. It is estimated that they constitute almost two thirds of the retirement village stock of around 24,000 units. Retirement village units make up 1.5 percent of New Zealand's national stock of private dwellings which in the 2013 census numbered 1,561,959.

On average, the participant villages provide 82 dwelling units. However, the range of stock sizes across retirement villages is considerable. The participating retirement village providing the smallest number of units delivers only four dwellings while the retirement village that provides the highest number of units provides 383 dwellings (Figure 3.1).

**Figure 3.1 Retirement Village Housing Stock**



The New Zealand Retirement Village Database (NZRVD)<sup>6</sup> estimates the average number of units in New Zealand retirement villages to be sixty-nine. This is consistent with the resilience survey and a 2010 survey of the sector commissioned by the Commission for Financial Literacy and Retirement, although the expansion of retirement villages particularly by listed companies is evident in the 2013 national survey data.

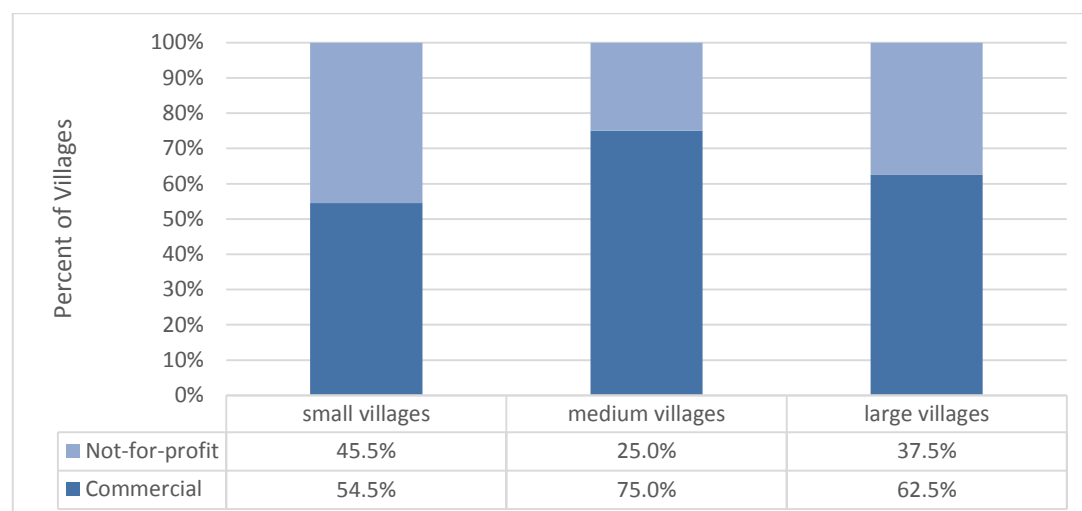
The NZRVD 2013 suggests that the sector is increasingly dominated by five large corporate entities which deliver almost 49.2 percent of the stock. The 2010 Commission for Financial Literacy and Retirement survey found that although these commercial operators dominate the retirement village sector, charitable trusts and not for profit organisations were much more obvious in the smaller villages (Figure 3.2). That pattern is likely to have been maintained.

The resident population of retirement villages is more difficult to establish than the number of units within a retirement village. Neither retirement villages nor operating companies with multiple village sites are constrained to maintain a census of occupants. Twenty-three participant retirement villages were unable to report accurately on the number of residents within their village. Over the remaining 166 retirement villages, a total of 14,624 residents were reported. Occupancy rates in the participating retirement villages that reported both numbers of units and numbers of residents is 1.22 people per unit. This is probably an overstatement of the cross-stock average. The resident population probably lies between 25,600 and a little over 27,000.<sup>7</sup>

<sup>6</sup> Jones Lang LaSalle, 2013.

<sup>7</sup> Our estimate is somewhat lower than the NZRVD estimate of 27,287 across the whole sector which includes retirement villages that are not members of the RVA.

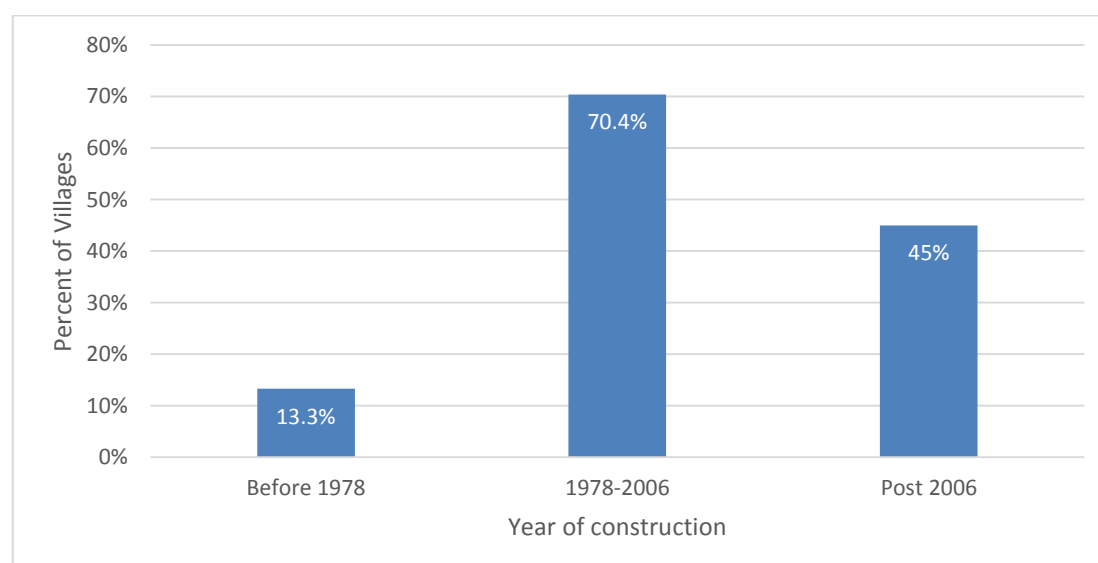
**Figure 3.2 Retirement Village Size by Operator Type<sup>8</sup>**



### 3.3 Stock Typology and Stock Age

Only 13.3 percent of participant retirement villages report that they built stock prior to 1978 before the introduction of mandatory insulation in domestic buildings. Around 70 percent of villages reported building some or all of the dwellings in their village during the 1978-2006 period while 45 percent have built some or all of the dwellings in their village after 2006 (Figure 3.3).

**Figure 3.3 Retirement Village by Year of Construction<sup>9</sup>**



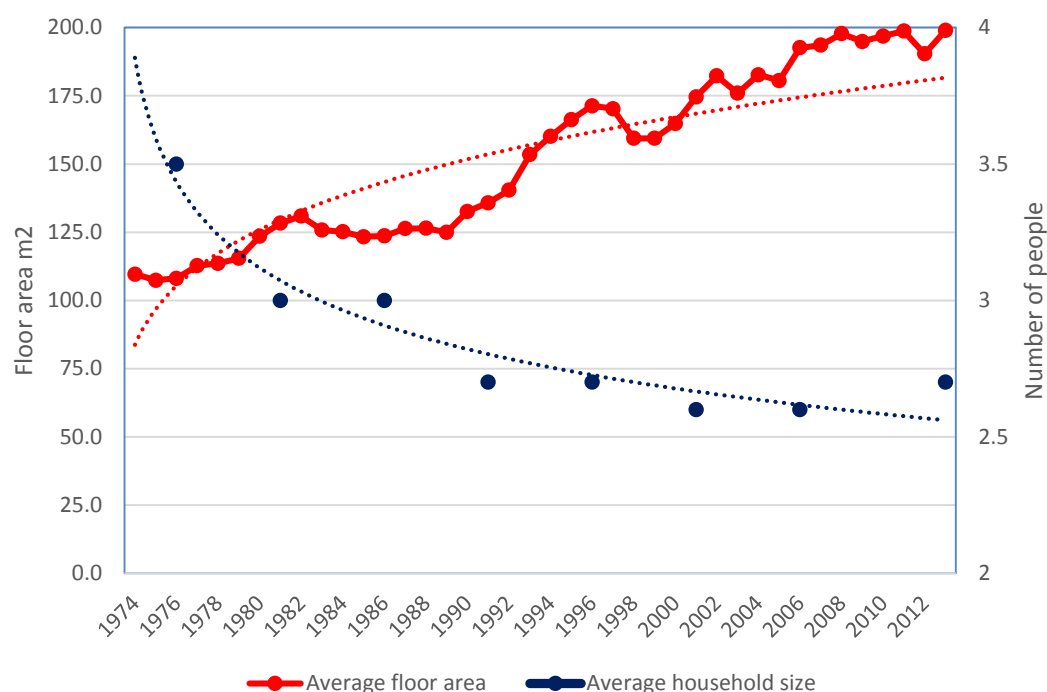
Of the 15,623 dwelling units reported by the participant retirement villages, villages reported the number of bedrooms for 12,357 dwelling units and the building type for 13,366 dwelling units. This data shows that the retirement village stock is substantially different from New Zealand's dwellings stock as a whole.

<sup>8</sup> Martin Jenkins, 2011b.

<sup>9</sup> Multiple answers possible.

New Zealand's housing stock as a whole is dominated by three or more bedroom dwellings. There has also been a persistent increase in the size of the new-built New Zealand housing stock over the last thirty years. This has occurred despite falling household sizes (Figure 3.4).

**Figure 3.4: Domestic Dwelling Floor Areas and Average Household Size 1974-2012**



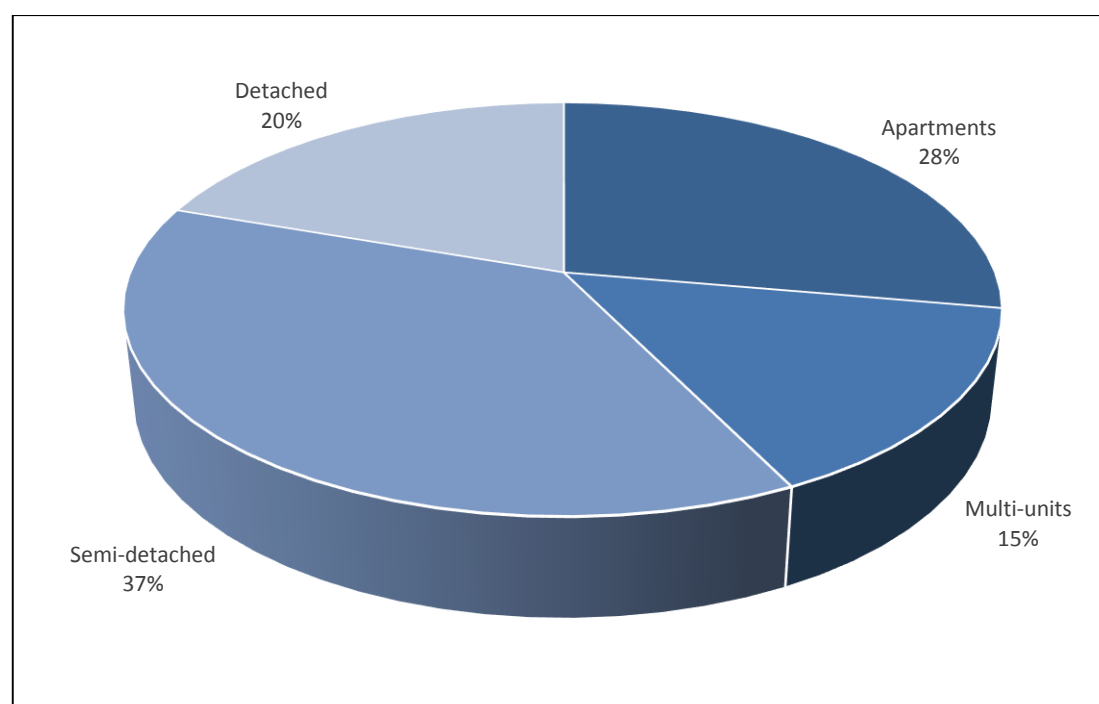
As Table 3.2 shows, almost a third of the retirement village stock is made up of one bedroom, bed-sitting or studio units. The dominant stock size is a two bedroom unit with a residual set of dwellings with larger numbers of bedrooms.

**Table 3.2: Retirement Village Stock Profile and NZ's Private Dwelling Stock in 2013**

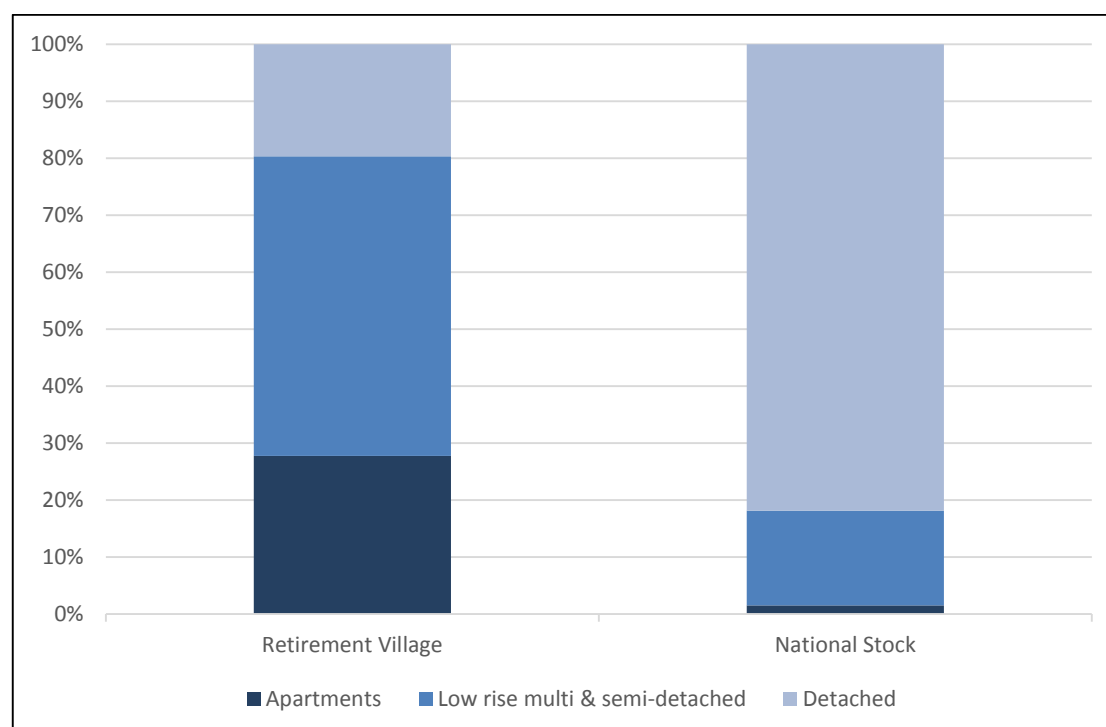
Number of bedrooms	Retirement Villages		NZ Dwelling Stock	
	Dwellings	% Stock	Dwellings	% Stock
1-bedroom, bed-sit, studio	3,945	31.9	79,320	5.5
2-bedrooms	7,266	58.8	273,207	18.9
3 or more bedrooms	1,146	9.3	1,093,830	75.6
<b>Total</b>	<b>12,357</b>	<b>100</b>	<b>1,446,357</b>	<b>100</b>

In relation to stock types, retirement villages also have a very different new-build pattern than the rest of the new-built stock. The proportions of stock types reported by the participant retirement villages are set out in Figure 3.5. Over half the retirement village stock consists of semi-detached and low-rise multi-units. Detached dwellings make up only a fifth of the stock while well over a quarter of the retirement village stock consists of apartments. The stock across the retirement village sector shows a more diverse stock than the national dwelling stock. Over three-quarters (76.6 percent) of New Zealand's households in the 2013 census live in stand-alone or detached dwellings. The extent of the considerable divergence between the national stock profile and the retirement village stock profile is evident in Figure 3.6.

**Figure 3.5 Retirement Village Stock Profile**



**Figure 3.6 Dwelling Types in the National Housing and Retirement Village Stocks**



A typical retirement village has a variety of stock types, although half report having no stand-alone dwellings at all (Table 3.3). Some 41 per cent of retirement villages have only one type of dwelling stock. Over a third of those villages (39 per cent) had semi-detached stock. Two fifths (44.4 per cent) of villages may be categorised as dual stock villages. Retirement villages with a combination of semi-detached and stand-alone dwellings are most common among dual stock villages. Less than a fifth (18.6 per cent) of retirement villages have more than three types of dwellings.

**Table 3.3 Housing Stock Mix across Respondent Retirement Villages**

Village Stock Mix	Villages	% All Villages	% by Village Type
<b>Single Stock Villages</b>	<b>77</b>	<b>41</b>	<b>100</b>
Stand-alone only	21	11.2	27.3
Semi-detached only	30	16.0	39.0
Low rise multi-units only	12	6.4	15.6
Apartment/tower only	14	7.4	18.2
<b>Dual Stock Villages</b>	<b>76</b>	<b>40.4</b>	<b>100</b>
Stand-alone and semi-detached	25	13.3	32.9
Stand-alone and low-rise multi units	9	4.8	11.8
Stand-alone and apartment/tower	6	3.2	7.9
Semi-detached and low-rise multi-units	10	5.3	13.2
Semi-detached and apartment/tower	21	11.2	27.6
Low rise multi-units and apartments	5	2.7	6.6
<b>Mixed Stock Villages</b>	<b>35</b>	<b>18.6</b>	<b>100</b>
Stand-alone, semi-detached, and low rise multi-units	13	6.9	37.1
Stand-alone, semi-detached, and apartment/tower	12	6.4	34.3
Stand-alone, low rise multi-units, apartment/tower	2	1.1	5.7
Semi-detached, low rise multi-units, apartment/tower	2	1.1	5.7
Stand-alone, semi-detached, low rise multi-units, apartment/tower	6	3.2	17.1

### 3.4 Other Residential Buildings and Living Arrangements

Retirement villages have developed around three different markets, albeit all somewhat overlapping and all focused on older people and retirement:

- **Lifestyle Market** – There is a set of villages that have been developed specifically as a lifestyle choice. These have focused on the provision of recreational facilities and giving residents opportunities to reduce their commitments to housekeeping, home maintenance and section maintenance with serviced grounds, provision of meals if desired and housekeeping services. Some retirement villages are so committed to the lifestyle concept, they explicitly require residents to leave the village if they require on-going support or care.
- **Downsizing Market** – Retirement villages present themselves as a way for older people to gain multiple benefits by selling larger family homes and moving to smaller units. These potential benefits range from having more manageable and higher performing homes to releasing equity.
- **Care and Support Market** – The third market segment serviced by the retirement village sector has to some extent been an evolution of the rest home sector. Indeed, some retirement villages have been developed on rest home sites. Other retirement



villages have incorporated services to allow for a progressive provision of support within the retirement village. This sometimes involves moving from so-called independent living dwellings through to serviced apartments to providing higher dependency care to rest home level and the provision of dementia care or hospital care. While rest home and aged care facilities may share sites with retirement villages, their regulation and funding are quite separate from the regulatory framework that governs the retirement village sector.

According to the 2010 survey of retirement villages undertaken by the Commission for Financial Literacy and Retirement, almost all villages reported independent living units (93.3 per cent) with 45.8 per cent reporting serviced apartments. Just over half (51.1 per cent) had a rest home and 13.3 per cent of retirement villages reported the provision of specialist care units.<sup>10</sup> That is, around two thirds (64.4 per cent) had a rest home or aged care facility. This appears to have increased to around 65 percent in 2013.<sup>11</sup>

The retirement villages participating in this 2013 retirement village resilience survey show higher proportions of villages co-located with rest homes or aged care facilities. Almost three quarters (73.5 per cent) reported higher dependency facilities attached to the retirement village. This pattern is consistent with three markets dynamics in the retirement village sector.

Some rest homes have expanded into the retirement village sector by the development of independent living units. Similarly, some retirement villages have added rest home and/or aged care facilities to their existing delivery of independent living units. It also reflects the expansion of certain corporates into the retirement village sector in recent years which have business models based on the delivery of a continuum of services from independent living to care for those with dependent service needs.

### **3.5 Tenure and Retirement Villages**

Retirement villages typically use licences to occupy but there are other tenures within the retirement village sector.

In 2010, 5.4 percent of retirement villages used predominantly unit titles and a similar proportion had predominantly rental units. Over 80 percent predominantly used licenses to occupy.<sup>12</sup> This 2013 resilience survey with retirement villages found a similar pattern, although the use of licences to occupy has intensified.

In all, 96.3 percent of participant retirement villages reported that they used licenses to occupy. Unit titles, which provide a form of owner occupation, are used by 4.2 percent of retirement villages. The provision of rented dwellings has fallen to 1.6 percent of retirement villages which have one or more rental units within their village (Figure 3.7). This profile may reflect the participants in the survey. It is generally believed within the industry that unit titles make up a higher proportion, possibly up to 20 percent, of tenures in retirement villages.

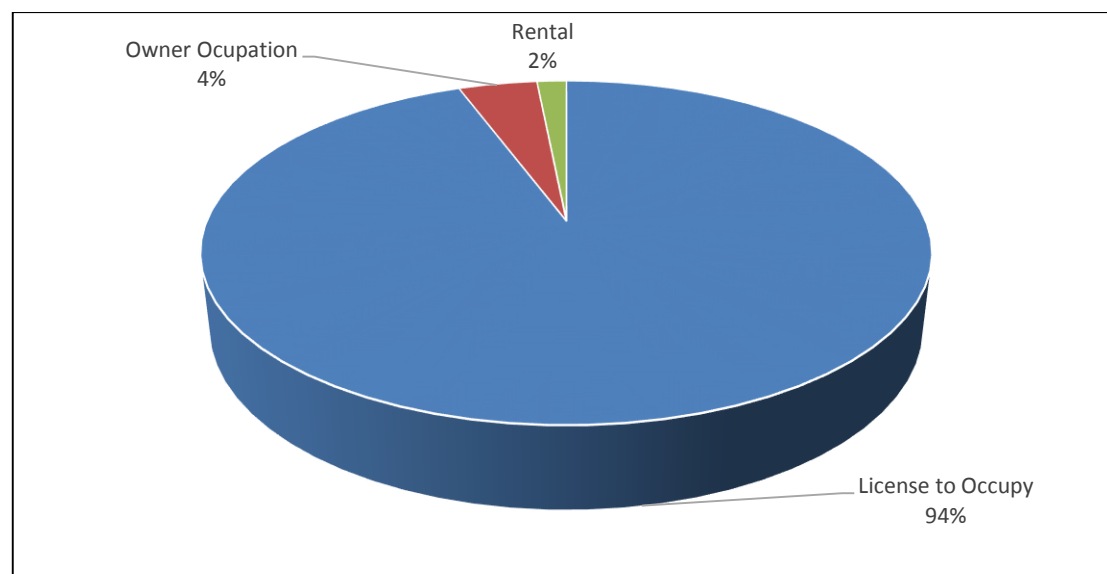
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<sup>10</sup> Martin Jenkins 2010b.

<sup>11</sup> Jones Lang LaSalle, 2013.

<sup>12</sup> Martin Jenkins 2010b.

**Figure 3.7 Retirement Villages and Tenure**



#### 4. RETIREMENT VILLAGES AND ADVERSE NATURAL EVENTS

A substantial minority (44.6 per cent) of the participant retirement villages in the 2013 resilience survey have been affected by adverse events. Some have been affected by more than one type of event in the last decade (Table 4.1). Table 4.2 shows the effects of the Canterbury and the Cook Strait earthquakes with 20.6 per cent having been affected by earthquakes in the last ten years. Also prominent among the range of events affecting retirement villages are weather related events: storms, extreme winter events and flooding.

**Table 4.1 Number of Adverse Events Experienced in Last Decade**

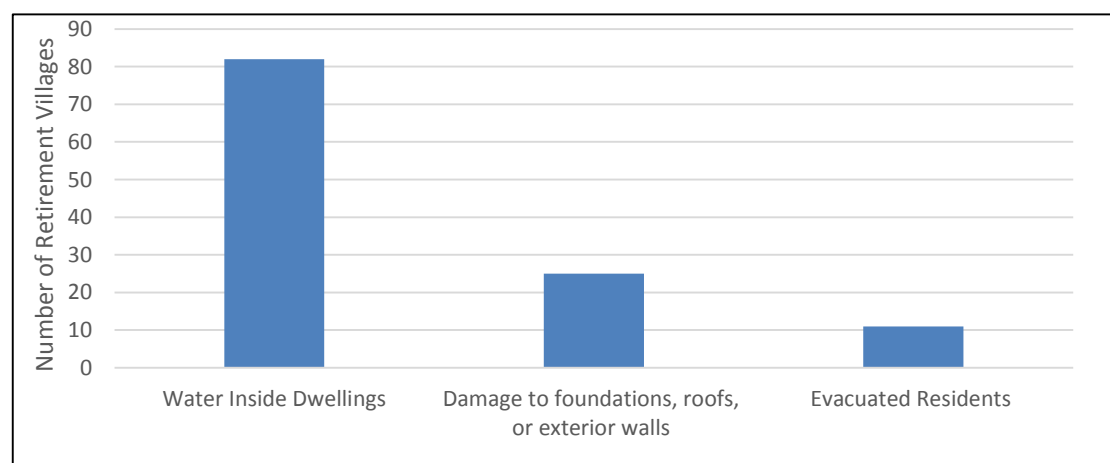
Event Types Experienced	Retirement Villages	% Retirement Villages
No adverse events	107	56.6
1 type of adverse event	49	25.9
2 types of adverse events	27	14.3
3 types of adverse events	6	3.2
<b>Total</b>	<b>189</b>	<b>100.0</b>

**Table 4.2 Adverse Event Types Experienced in Last Decade**

Type of Event	Retirement Villages	% Retirement Villages
Affected by an earthquake	39	20.6
Affected by storm/thunderstorm/cyclone	27	14.3
Affected by a heavy snowfall, snow storm or blizzard	26	13.8
Affected by a flooding	17	9.0
Affected by a tornado	2	1.1
Affected by a landslide	1	0.5
Affected by a volcanic eruption	1	0.5

Only 5.8 per cent of retirement villages report that they have had to evacuate residents in the last ten years because of an adverse natural event. However, 13.2 per cent of retirement villages report that an adverse natural event has resulted in damage to building components of one or more dwellings in the village such as roofs, exterior walls or foundations. Certainly, the impact of weather related adverse events should not be under-estimated. Over two-fifths (43.4 per cent) of retirement villages report that they have had one or more dwellings with water inside due to leaks in the roof, windows or flooding during adverse natural events (Figure 4.1).

**Figure 4.1 Impacts of Adverse Natural Events and Retirement Villages in Last Decade**



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## 5. READYING FOR ADVERSE NATURAL EVENTS

This section focuses on the way in which retirement villages approach planning, preparation and response to adverse natural events. It focuses on two aspects of preparation and response. First, it considers the extent to which retirement villages capture information relevant to emergency response and the impacts of past events. Second, it looks at the variety of approaches of retirement villages take to emergency planning.

### 5.1 Information for Emergency Planning and Response

Fundamental to the ability of retirement villages to plan for and respond to adverse events is an understanding of the individuals and buildings within the village. Knowledge of prior adverse events is also important for two reasons. First, the experience of an adverse event may be indicative of a vulnerability to similar events in the future. After the experience of the Canterbury and the Cook Strait earthquakes, this idea has become commonly accepted in relation to earthquakes. It is also the case, however, with more common events in New Zealand such as river, storm water and coastal flooding. Second, prior events also provide an opportunity to learn.

#### *Record Keeping Around Past Events*

Almost two thirds (64 percent) keep records of adverse natural events that have affected the retirement village or maintain a process for recording information for future adverse natural events. Overall, across all the retirement villages, however, less than half report that they have a process for recording information about repair completion times, numbers of residents affected, resident evacuation, rehousing and interruption of key services. The lack of systematic processes for recording and accessing that information is a missed opportunity for retirement villages to progressively improve their risk management around adverse natural events.

Among the retirement villages that do retain records or have a records process for future events, most focus on records necessary to make insurance claims. For instance, 87.6 percent of these retirement villages recorded the remedial work required. A similar proportion (86.8 percent) of the 64 percent of retirement villages with a record process for adverse events, record whether an insurance claim was filed and 84.3 percent have a process for recording the amount filed in an insurance claim.

By way of contrast, even retirement villages with a dedicated recording process for adverse natural events are less likely to focus on aspects of response and recovery that directly affect residents. Only 64.5 percent of retirement villages with a recording process captured information on the time taken to complete repairs subsequent to a damaging event. A slightly smaller proportion, (60.3 percent) have a process for recording resident rehousing. Higher proportions of retirement villages record evacuation or interruption to key services (both 71.9 percent). Almost three quarters (74.4 percent) have a process for recording the number of residents affected.

#### *Information about Village Residents for Emergency Purposes*

Almost all retirement villages maintain a register of residents' next of kin who can be contacted in a case of emergency evacuation. The majority also maintain registers of residents with various disabilities. In relation to mobility disability, 76.7 percent of villages report retaining a register and 74.6 percent of retirement villages report keeping

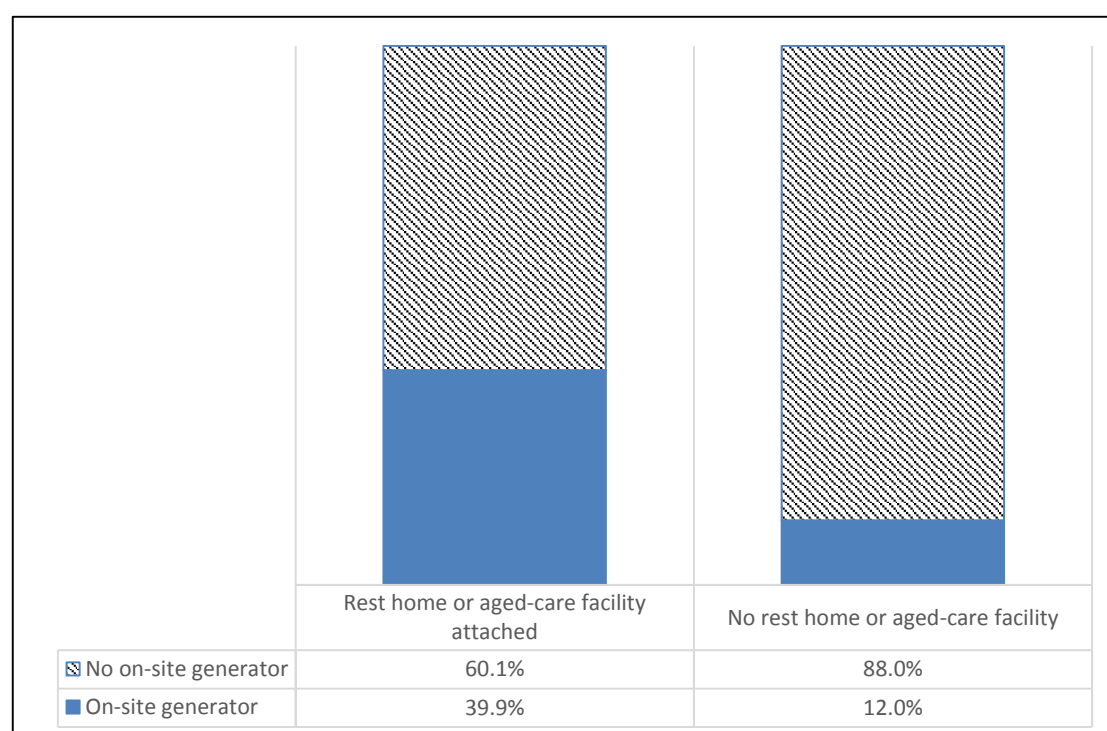
registers of residents with impaired hearing or sight (74.6 percent). Over two thirds (69.3 percent) of retirement villages report that they have a register of residents requiring medication. The extent to which these registers are regularly updated is unclear. Notably, given that loss of electricity is common in adverse natural events, only 51.9 percent of retirement villages report keeping a register of residents who are dependent on electrical supply for life supporting equipment.

## 5.2 Retirement Villages and Resilient Infrastructure

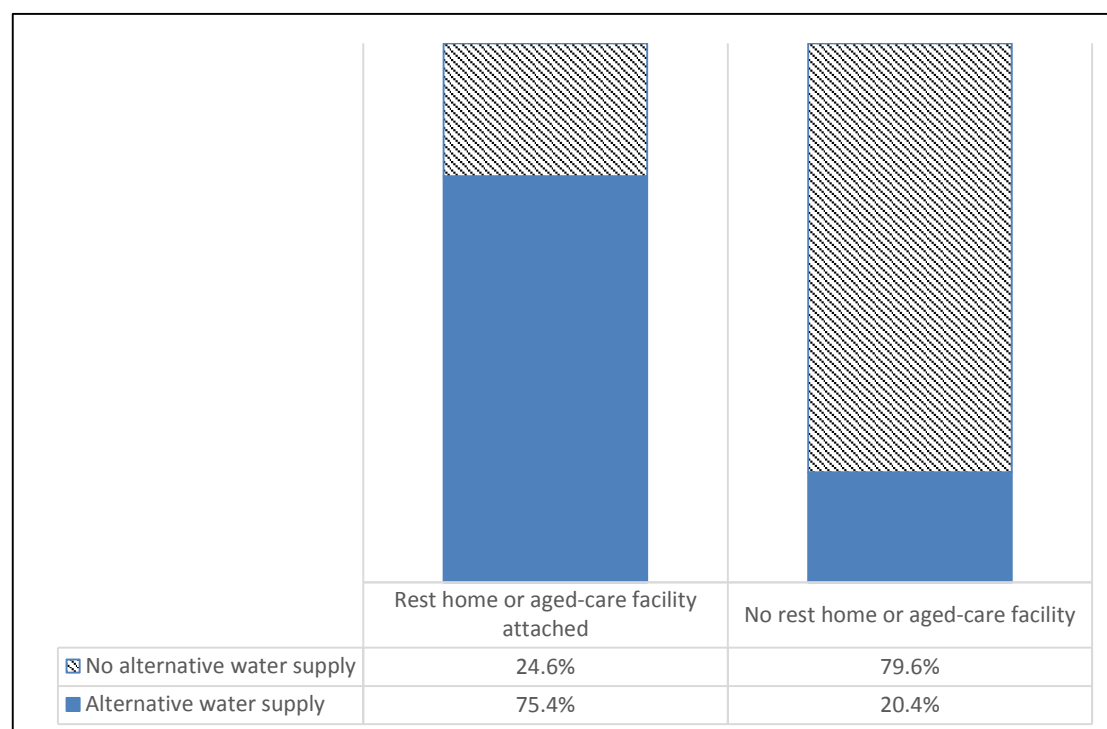
Many retirement villages are developed as a staged master plan settlement. Others develop more organically. Either way, retirement villages offer opportunities for the incorporation of resiliency features into the village infrastructure. This can range from on-site power generation to alternative water supplies and provision of alternative fuels for basic activities such as cooking. The survey of retirement villages shows that some of these features are relatively common but others are less so.

Less than a third (32.3 percent) of retirement villages report that they have an on-site generator if power is cut, although 60.3 percent report having an on-site alternative water supply such as water tanks. Around 6 percent of retirement villages have a sewerage system that is independent from the urban reticulated system. Some villages maintain the ability to cook when power is no longer available because they have bottled gas cooking. A small number of retirement villages report that future development plans include the provision of a generator and other facilities which will increase capacity to deal with adverse events. There is a statistically significant association between whether a retirement village has a rest home or aged care facility and the availability of resilient infrastructure (Figure 5.1 and Figure 5.2).

**Figure 5.1 On-site Generation by Retirement Village Type**



**Figure 5.2 On-site Alternative Water Supply by Retirement Village Type**



Some 90.2 percent of the retirement villages with on-site generators also had a rest home or aged care facility attached. Having a rest home or aged care facility attached does not always mean that an on-site generator is available. Indeed, only 59.7 percent of retirement villages with rest homes or aged care facilities also had an on-site generator. It is notable that a number of the retirement villages participating in this survey indicated the importance of rest home and aged care hospital facilities in their own evacuation and adverse event response planning.

### 5.3 Emergency Planning and Response

Retirement villages approach emergency response planning and implementation in a diversity of ways. Only a minority (12 percent) of retirement villages report no process of emergency planning or implementation. Just over half (55 percent) report emergency planning and the implementation of emergency plans is undertaken by the retirement village either locally or, if there is one, at their national office.

Around a third of retirement villages involve residents in emergency planning and implementation. In the case of two retirement villages this function is reported as solely the responsibility of the residents committee. Over a third of retirement villages (39.7 percent) report that a dedicated staff member has responsibility for emergency planning and implementation rather than those activities being undertaken as part of generalised responsibilities of employees or the village manager.

The majority of retirement villages do not involve residents as a group in emergency planning and implementation. Nevertheless, most (86.2 percent) retirement villages report that they provide individual residents with a face-to-face induction process when a resident moves into a dwelling or unit. The remainder tend to rely on the provision

of written material, although some retirement villages report that they also have periodic visits and workshops with residents presented by local emergency services.

Over a third (38.1 percent) of retirement villages either reported no or very nebulous evacuation arrangements or that residents are responsible for finding alternative shelter if evacuation is required. A similar proportion (37 percent) report they have an evacuation facility on-site, while a fifth (20.6 percent) of retirement villages report that they have a pre-arranged plan to evacuate residents to a facility off-site. A small number of retirement villages have clear plans to deal with escalating events by having both plans to evacuate to facilities on-site then, if necessary, to evacuate to specific destinations off-site.

A few retirement villages were reviewing the emergency plans at the time of surveying. Among the thirty retirement villages (15.9 percent) that had rather undefined plans for evacuation, their plans varied from contacting relatives to waiting and seeing what was available in the way of alternative accommodation to moving residents to other villages within the same corporate or evacuating to civil defence provided evacuation facilities, local schools, church halls, or a community centre outside the village. Others appear to have developed clear plans and supportive infrastructure to deal with adverse natural events. For instance, one retirement village reports that it has designed the “community club [to] have on-site emergency heating, lighting, radio and cooking facilities.”

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## 6. ADVERSE NATURAL EVENTS & RETIREMENT VILLAGES

Retirement Villages present older people with a unique living space. They simultaneously promote the notion of independent living while offering a 'carefree', managed environment. Many of the responsibilities that would rest on owner occupiers, and indeed most tenants, in the mainstream housing sector are centralised and managed collectively by a retirement village operator. There are variations between retirement villages, but they range from managing the occasional maintenance, renovations and refurbishment of units to the day to day management of grounds. Many of the financial and supply transactions that mainstream householders must deal with from payment of property and water rates to the supply of electricity to the management of dwelling insurance can be centralised in retirement villages and relieve individual residents of their day to day management.

There are a number of other ways in which retirement villages offer older people the opportunity to have aspects of their lives managed for them. Many retirement villages provide recreational centres and facilities. Some organise access to services such as hair dressing and podiatry by bringing providers on-site. There are also opportunities to have a personal checking service to ensure that if no movement is observed in a unit then a safety check is made. Many provide transport to main centres for recreational trips, shopping and to facilitate access to health and other services. Of course, as previously mentioned some retirement villages further the service and managerial support dimensions of retirement village living through the provision of a continuum of living environments from independent living units through serviced apartments and into rest home and aged care facilities.

In the context of preparing for and managing the response to recovery from adverse events, this dual approach of independent living and managed environments leads to ambiguities around the relative responsibilities of retirement villages and individual residents respectively. Less than forty percent of retirement villages report they organise responsibilities for planning, preparation and response as a dedicated job function, as opposed to generalised expectation of management. The administrative and record processes associated with adverse natural event response and recovery tend to be shaped by the requirements for insurance claims, rather than information required for response and improving resilience. Only a third of retirement villages actively involve residents in emergency planning and implementation. Over a third of villages reported they had no, or very generalised, arrangements for contingencies such as the need to evacuate dwellings.

These latter retirement villages repeatedly state that the onus is on residents to respond and make arrangements in these conditions as they are 'living independently'. This approach sits uneasily with the recently introduced requirements around insurance provision in response to the Canterbury earthquakes, although it is not necessarily non-compliant with them. Perhaps more importantly, this sits uneasily with the secure and safe lifestyle being promoted by the retirement village sector. More than a third of retirement villages with no or very generalised response plans to adverse events also tend to put interventions by civil defence agencies at the centre of their response. In some cases, there appear to be assumptions that local schools and halls will be made available as community evacuation centres. It is assumed that village residents, along with residents in surrounding neighbourhoods, will be directed to and supported by civil defence in these facilities.



The extent to which these assumptions are practical or realistic cannot be assessed. In an event this will depend on the particular interplay of various factors. However, it must be noted that retirement villages present some challenges for mainstream services in the context of an adverse natural event.

Firstly, they have a diverse dwelling stock. People within apartments can, for instance, require particular assistance in evacuation. Second, by their very nature, retirement villages tend to be higher density than surrounding neighbourhoods. Their physical layout and lack of consistent signage may make it difficult for emergency services to quickly access residents. Some residents with sensory impairments or limited mobility will have particular requirements if evacuations are to be efficient and effective. Because retirement villages do not have a mix of age groups, the dynamics of local networks as well as response in retirement villages will potentially be very different from other types of neighbourhoods.

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## **7. OPPORTUNITIES FOR IMPROVEMENT**

Retirement villages do by virtue of their higher densities and the provision of collecting infrastructure within the village, have real opportunities to build resilient infrastructure. Because of their control over stock, they have the potential to provide alternative dwellings on a transitional basis where necessary. Many have skilled managerial and technical staff on-site who can facilitate rapid recovery. Many have skilled and active resident populations. Some retirement villages are building on those advantages to develop resilient villages.

To build on these advantages, it is important that the retirement village sector works together to develop standard and systematic approaches:

- To collecting information relevant to risk management and provision of support to residents in the context of adverse natural events prepares detailed evacuation process and temporary accommodation plans.
- Incorporating resilience features such as on-site emergency heating, cooking, lighting, water supply, and communications systems into communal infrastructure.
- Actively engaging of residents in developing individual and village plans for preparing for, responding to, and recovery from, adverse natural events.

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## **ANNEX A: SURVEY OF RETIREMENT VILLAGES**



## Retirement Village Housing Resilience Survey

A Component of the Public Good Research Programme

Community Resilience and Good Ageing:  
Doing Better in Bad Times

The Community Resilience and Good Ageing Project seeks better outcomes for communities and older people when affected by adverse natural events - flooding, slips, bushfire, earthquake, or extreme weather.

Protection during and recovery after these events has a lot to do with the resilience of housing. Although the community housing stock is relatively small in New Zealand, it is very important to some of our most vulnerable older people.

This survey collects information about retirement village dwellings/units. This and surveys with older owner occupiers and other housing providers will help identify ways New Zealand's housing infrastructure can be made more resilient.

One survey should be completed for each village. If you manage more than one village and we have not provided additional surveys please contact us and we can send out extras.

If you need clarification about specific questions, or if you have any questions about the research in general please don't hesitate to contact us at CRESA.

You can contact Kay or Ruth on free-phone 0508 427372. Alternatively email Ruth on [ruth@cresa.co.nz](mailto:ruth@cresa.co.nz)

To see more about the resilience project and our other research with older people around good homes you can visit our website [www.goodhomes.co.nz](http://www.goodhomes.co.nz)

**Please return the questionnaire by 27 September 2013.**

There is a pre-paid envelope addressed to us enclosed. If you lose it don't hesitate to call us. If you would prefer to provide your response via an electronic form please email Ruth on [ruth@cresa.co.nz](mailto:ruth@cresa.co.nz) and we can arrange this for you.

**For electronic copies please return via email to [ruth@cresa.co.nz](mailto:ruth@cresa.co.nz)  
hard copies should be returned via the prepaid envelope to  
CRESA PO Box 11260 Wellington 6142**

### ***Your village***

1. Where is your village located?

Village address: \_\_\_\_\_

2. Is the village within a 10 minute walk of a local bus route or train station ...?

☐<sub>1</sub> Yes

☐<sub>2</sub> No

3. How many residents live in the village?

Number: \_\_\_\_\_

### ***Housing in the village.***

4. How many units/dwellings are in the village in total?

Number: \_\_\_\_\_

5. How many of each type of dwelling/unit are in this village?

Type	Number in Village (If none note zero)	Number of Units
Stand-alone dwellings	_____	____ bedsits/studio ____ 1 bedroom ____ 2 bedroom ____ 3 bedrooms or more
Semi-detached dwellings	_____	____ bedsits/studio ____ 1 bedroom ____ 2 bedroom ____ 3 bedrooms or more
Low-rise multi-unit block	_____	____ bedsits/studio ____ 1 bedroom ____ 2 bedroom ____ 3 bedrooms or more
Tower/Apartment block	_____	____ bedsits/studio ____ 1 bedroom ____ 2 bedroom ____ 3 bedrooms or more

6. When was the village built? *(if the village was built in stages please tick all that apply)*

- ☐<sub>1</sub> Before 1978
- ☐<sub>2</sub> 1978-2006
- ☐<sub>3</sub> After 2006

Comments (if any)

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7. What is the main form of tenure for residents? *(please tick one box only)*

- ☐<sub>1</sub> License to occupy
- ☐<sub>2</sub> Owned unit title
- ☐<sub>3</sub> Rental
- ☐<sub>4</sub> Other \_\_\_\_\_

8. Are residents within a 10-15 minute walk or five minute drive to:

- ☐<sub>1</sub> A beach from the village
- ☐<sub>2</sub> A river/stream from the village
- ☐<sub>3</sub> A lake or wetlands from the village

9. Does the village have a view of a beach, river/stream, lake or wetlands?

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

10. Is there a rest home or aged care facility attached to the village?

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

**Adverse Natural Events – Impacts on Your Housing Stock**

11. Do you keep a record of any adverse natural events (e.g. flooding, slips, earthquake extreme weather event etc) that have affected the village site?

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

12. If yes, which of the following details do you record? *(please tick all that apply)*

- ☐<sub>1</sub> Damage/loss caused
- ☐<sub>2</sub> Whether an insurance claim was filed
- ☐<sub>3</sub> Insurance claim amount
- ☐<sub>4</sub> Remedial work required
- ☐<sub>5</sub> Time to complete repairs
- ☐<sub>6</sub> Whether tenants/residents needed to evacuate
- ☐<sub>7</sub> Number of tenants/residents affected
- ☐<sub>8</sub> Tenants/residents rehoused elsewhere
- ☐<sub>9</sub> Whether there was interruption to key services e.g. water supply, electrical supply, sewerage, village roading and footpaths, village communal facilities
- ☐<sub>10</sub> Other (please specify) \_\_\_\_\_

Comments/detail (if any) \_\_\_\_\_



**Thinking about adverse natural events over the last ten years**

13. In the last ten years have any of the dwellings/units in your village been affected by?  
(please tick all that apply)

- ☐<sub>1</sub> Storm/thunderstorm/cyclone/damaging wind
- ☐<sub>2</sub> Flooding
- ☐<sub>3</sub> Tornado
- ☐<sub>4</sub> Landslide
- ☐<sub>5</sub> Coastal erosion, storm surge or high tides
- ☐<sub>6</sub> heavy snowfall, snow storm or blizzard
- ☐<sub>7</sub> Earthquake
- ☐<sub>8</sub> Volcanic eruption
- ☐<sub>9</sub> Unsure
- ☐<sub>10</sub> Other (please specify) \_\_\_\_\_

14. Have any of the dwellings/units in your village ever had water inside from leaks in the roof, windows or flooding during adverse natural events? (Please tick one box only)

- ☐<sub>1</sub> Yes
- ☐<sub>2</sub> No
- ☐<sub>3</sub> Unsure

15. Have any of your village dwellings/units had damage done to the foundations, exterior walls or roof from adverse natural events? (Please tick one box only)

- ☐<sub>1</sub> Yes
- ☐<sub>2</sub> No
- ☐<sub>3</sub> Unsure

16. Have any of your residents/tenants had to be evacuated in the last ten years because of an adverse natural event? (Please tick one box only)

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

**Adverse Natural Events – Residents/Tenants**

17. Do you have a register of residents or tenants ... (Please tick one box only for each category)

- |   |   |  |
|---|---|--|
| a. Dependant on electrical supply for life supporting equipment | <input type="checkbox"/> <sub>1</sub> Yes | <input type="checkbox"/> <sub>2</sub> No |
| b. With a mobility disability                                   | <input type="checkbox"/> <sub>1</sub> Yes | <input type="checkbox"/> <sub>2</sub> No |
| c. With a hearing and/or sight disability                       | <input type="checkbox"/> <sub>1</sub> Yes | <input type="checkbox"/> <sub>2</sub> No |
| d. With other disabilities                                      | <input type="checkbox"/> <sub>1</sub> Yes | <input type="checkbox"/> <sub>2</sub> No |
| e. Requiring medication   | <input type="checkbox"/> <sub>1</sub> Yes | <input type="checkbox"/> <sub>2</sub> No |

18. Do you have residents' or tenants' next-of-kin or similar contact in case of emergency evacuation? (Please tick one box only)

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

Please turn the page to complete the final section →

### **Adverse Natural Events – Emergency Planning**

19. Are residents provided with a face-to-face induction, which includes emergency planning, when they move into one of your dwellings/units? *(Please tick one box only)*

☐<sub>1</sub> Yes

☐<sub>2</sub> No

*Comments/detail (if any)*

20. How is emergency planning and implementation done? *(please tick all that apply)*

☐<sub>1</sub> The residents committee deals with that

☐<sub>2</sub> We have a dedicated staff member

☐<sub>3</sub> We have a management committee of staff to develop and update plans

☐<sub>4</sub> We have a joint staff and resident committee to develop and update plans

☐<sub>5</sub> Other *(please specify)* \_\_\_\_\_

21. If you need to evacuate what are the arrangements for evacuation? *(Please tick one box only)*

☐<sub>1</sub> Residents are responsible for finding alternative shelter if evacuation is required

☐<sub>2</sub> There is an evacuation facility on-site *(please describe below)*

☐<sub>3</sub> There is a plan to evacuate residents to a facility off-site *(please describe below)*

*Detail about on-site and/or off-site evacuation facility (if any)*

22. Are there any of the following on-site? *(Please tick one box only for each category)*

a. A generator(s) to maintain power if the electricity is cut ☐<sub>1</sub> Yes ☐<sub>2</sub> No

b. Alternative water supply e.g. water tanks ☐<sub>1</sub> Yes ☐<sub>2</sub> No

c. On-site sewerage system independent from town sewerage system ☐<sub>1</sub> Yes ☐<sub>2</sub> No

23. If you have any other comments, or wish to comment on something not covered in the survey please feel free to do so here or on the back page.

**Thank you. We appreciate your help.**

**Please check that you have filled out all the relevant questions and then post the completed survey back to us in the prepaid envelope provided.**

**CRESA  
PO Box 11260  
Wellington 6142**