



MAY 2014 SUMMIT REPORT

Rangimarie Room, Te Papa, Wellington, May 15 2014

By 2050 about 1 million older New Zealanders will be living in areas vulnerable to severe flooding, coastal storm surges, land slips and wind storms. *Community Resilience and Good Ageing: Doing Better in Bad Times* is a two-year research programme exploring ways to help older people help themselves and their communities to manage and recover from severe weather events.

It is funded by the Ministry of Business, Innovation and Employment and led by the Centre for Research, Evaluation and Social Assessment (CRESA). Other team members are Public Policy and Research, Building Research Association of NZ (BRANZ) and National Institute of Water and Atmospheric Research (NIWA).

Information from their surveys, interviews, focus groups and science research is being used to develop four practical tools to support and improve planning and policy around flood events; identify hazard exposure when choosing a house site; provide guidelines on resilience of building materials; and assess storm risk factors when building or renovating.

The May 2014 Summit presented preliminary findings and progress reports to 40 participants from around the country representing community organisations, council agencies, insurers and government departments. It featured presentations from two overseas experts and the NZ Insurance Council.

Key messages from the Summit

- The experience of older people is crucial to developing community resilience and this research harnesses that experience
- Preparation and response too often focuses on the event, rather than the recovery phase
- Resilient homes make for resilient older people. Resilient homes minimise the cost of repairs and time it takes to recover after severe weather events
- The EQC system is unique around the world. It is compulsory, it pools risk across the country and has universal coverage
- Maintaining availability and affordability of disaster insurance.
- Tools developed crucial to enable older people, their communities and organisations.

Speaker presentations

FLOOD RESILIENCE AND INSURANCE

Dr Sally Priest – Senior Research Fellow at the Flood Hazard Research Centre, Middlesex University, London. Sally is a specialist in flood insurance and a team member for *Resilient Communities: Doing Better in Bad Times*. She focused on the social consequences of flooding and discussed the NZ insurance system and its value in improving the resilience of older people to flooding.

NZ has a very high take-up of household insurance (85-90 per cent) compared with other parts of the world. We are still able to get insurance against natural events, which is not the case in many countries.

The EQC system has the following characteristics:

- Covers earthquake, tsunami, landslides and flood damage to land
- Funded by compulsory levy (15c per \$100 of insurance premium), which keeps the system viable
- Universal coverage (even if you live on a fault line you are eligible for EQC assistance)
- Pools the risk across the country
- Pays first \$100,000 of liability, easing burden on private insurance
EQC payments are only available to people who have taken out insurance. This leaves those who cannot afford insurance particularly vulnerable
- Does not cover flood damage to buildings
- Does not cover commercial property

Funds have been drained by the Canterbury earthquakes and more reinsurance is needed. Increased premiums and deductible (excess) payments can be a barrier to the uninsured and people on fixed incomes but are important to the sustainability of the insurance approach.

New Zealand's vulnerability to earthquakes, storms and flooding creates a complex insurance risk situation. In the wake of the Canterbury earthquakes and increasing severe weather events, especially flooding, there may be consideration of greater differential pricing between high-risk and low-risk properties. Differential pricing may if it were to be introduced present a barrier to affordable insurance for those in higher risk areas and older people on fixed incomes. However, it may ensure greater scheme sustainability.

There has been a drop in people taking out contents insurance because of rising premiums. This makes recovery more difficult and stressful if they are affected by a severe natural event.

Older people must also grapple with the new sum-insured system, where the policy holder nominates how much cover they want. About 90 per cent of policy holders agree with the sum suggested by the insurance company, with little or no understanding of whether this is adequate.

Older people may be reluctant to claim for a number of reasons. For instance concern about the impact on premium and future costs, not clearly understanding what they can claim for and how to navigate the process of a claim and rebuilding. In these situations an insurance policy is not effectively utilised.

Research shows that housing developments in flood risk areas, including retirement villages, are still going ahead. Greater disclosure is needed about risks and situation before older people sign up to these properties. Flood risk assessments would benefit from drawing on older people's knowledge and experience of areas unsuitable for development.

Building up trust and loyalty with customers, incentives to take up insurance, and closer links between insurance companies, the government and the community would help improve the resilience of older people in times of severe natural events.

Many people under-estimate the hugely disruptive impact of flooding on older people: the emotional and physical stress of cleaning up after a flood and arranging repairs, the health risk of living in a damp house, and the effects of having to move out of their community.

John Lucas – Insurance Manager at the Insurance Council of New Zealand.
The Council represents and advocates for the insurance industry. John is the Council spokesman for property issues and takes a leading role in co-ordinating the industry's response to emergency events, most recently the challenges presented by the Canterbury earthquakes.

The Canterbury earthquakes and the increasing number of severe weather events throughout New Zealand have required changes to insurance in New Zealand. These include increased premiums and excesses, sum-insured policies, and flood insurance moving to risk-based premiums (eg. someone who lives on high ground would pay less than someone living near a river.)

Risks are changing in New Zealand – in 2010-11 we paid 0.01 percent of world premiums, but received 30 per cent of global insurance payouts. Much of this is attributed to the Canterbury earthquakes and reinsurers were able to spread the risk, but that may not be the case in the future. New Zealand is fortunate to have the EQC system, rather than solely relying on private insurance. In quake-prone California, for instance, a property owner pays \$6,000 a year for house insurance.

Although earthquakes are uppermost in our minds, New Zealanders are more likely to be affected by severe flooding. 2013 was the most expensive year for flood insurance claims, with \$174 million in payouts, and there have already four serious flood events in 2014.

As climate change takes hold insurers are increasing premiums, sometimes by large and sudden hikes, to keep up the level of coverage people expect. This creates difficult choices for older people on fixed incomes. Not insuring home contents is one option but that impacts on recovery after a flood, with people having to replace possessions and pay for temporary accommodation while repairs are done. In extreme cases, householders may end up having to pay the first \$10,000 of any claim.

Housing developments are still being built on flood plains but with new risk modelling tools they may find it difficult to get insurance.

The Insurance Council would like to see more Government regulation to improve resilience and reparability of houses, rather than rely on high premiums and payouts to fix damage after the event. There is a growing role for insurers to lobby government about better management and awareness of flooding risk.

PREVIEW OF THE TOOLS

The *Doing Better in Bad Times* research team is developing four practical Tools to help New Zealand homes and communities be more resilient to severe natural events.

These Tools focus on:

- Component resilience (building materials)
- Storm risk assessment
- House site selection
- Flood preparation, response and recovery

1. Component Resilience Tool, developed by Building Research Association of NZ (BRANZ)

Presented by Nick Marston, Materials Team Leader

BRANZ inspected and assessed houses that had been affected by floods or slips and are now repaired. They also drew on local and overseas research and materials rating systems to create the Component Resilience Tool. This rates different building materials according to their resistance to wetting and their amenity. The Tool helps designers choose the best materials for building or renovating a home. Ratings range from 1 (poor) to 5 (excellent). For example, Particle Board floors rate 1 because they absorb and hold water. A better choice would be hardwood or marine ply (rated 4). The Tool includes flooring, internal wall insulation, bedroom furniture and space heating.

2. Dwelling Resilience Tool, developed by BRANZ

Presented by Nick Marston, Materials Team Leader

This tool assesses building design and complexity and how these factors affect performance in severe wind, rain and storm events. The tool is a paper-based booklet where the house owner or buyer puts in scores to gauge the resilience of the house. Questions include How is it built? What materials are used? Exposure to different weather events? The assessment also covers possible hazards such as wind-blown debris from nearby trees.

3. House Site Selection Tool, developed by the Centre for Research, Evaluation and Social Assessment (CRESA) with assistance from the National Institute of Water and Atmospheric Research (NIWA)

Presented by Kay Saville-Smith, Programme Leader, CRESA

This tool provides older householders with a quick way to identify what hazards they might be exposed to on or near their property. Areas of vulnerability include wind risk, river and streams, stormwater and runoff, coastal erosion and tsunamis, flooding, slips and landscape modification/development. The tool identifies the questions the buyer needs to ask about the site and suggests sources of information such as Council files, real estate agent, the insurer, local library and long-term residents.

Many people look to buy their dream house as part of a long and happy retirement and often it is by the sea or close to a river. However one adverse natural event can quickly put them in a vulnerable and insecure situation physically and financially.

The House Site Selection Tool was not part of original research programme but has evolved from the field work which showed up a lack of information and

awareness about the natural hazards. A number of older people interviewed said: "If I had known about the risks with this site I would not have bought here."

4. The Flood Experience Tool, developed by Public Policy & Research, CRESA and the University of Lancaster

Presented by Dr Bev James, Public Policy & Research

This tool aims to raise awareness and improve policy, planning and emergency responses for older people affected by severe flooding. It is based on the real experiences of older people in New Zealand who have lived through a severe weather event and the recovery period.

The tool resembles the game of snakes and ladders, with different squares requiring decisions, actions, or presenting quotes from real experiences. It puts the "players" in the shoes of a flood victim and the unpredictability of living through such an experience. The tool shows that preparation and response too often focuses on the severe natural event, rather than the recovery phase of organising repairs, living in stressful conditions, dealing with insurance companies, effective advocacy and emotional support.

It has been tested in Marlborough, Nelson, Tasman, Christchurch and Wellington, and described as "A useful way to raise awareness of barriers older people face" and "A thought-provoking and potentially powerful tool." The Flood Experience Tool is relevant for a wide range of groups, including Government agencies, emergency services, councils, support agencies, community organisations, insurance companies and policymakers. The tool is being developed into a kit for groups to play.

THE IMPACTS OF EXTREME EVENTS ON HEALTH AND COMFORT

Dr Sue Roaf, Professor of Architectural Engineering at Heriot-Watt University, Edinburgh:

Sue is an architect, a renewable energy pioneer, and a member of the expert panel for Resilient Communities: Doing Better in Bad Times. She is a strong advocate of resilient houses by combining her design experience with helping people understand how to live comfortably and healthily in their homes.

With rising energy prices and more extreme weather events the ability to keep houses warm and comfortable is becoming less affordable for more people and there is also a greater risk of power cuts. Understanding these vulnerabilities and working out how to reduce them is the key to having resilient houses and communities.

Sue encourages people to look carefully at how they live in their house and to create different "climate refuges" – somewhere you can be warm, somewhere you can be cool, throughout the day and year. Rather than heat the whole house, look at heating the people inside it by creating microclimates such as a heated winter snug, a cool kitchen, a warm sunny sitting room, a cool verandah. A bedroom might be better converted into a sitting room if it is sunnier or easier to keep warm during the day.

Creating climate refuges does not have to be expensive, suggestions include heavy curtains or double glazing in the room you spend the most time in.

There is a strong connection between keeping warm and keeping healthy. By international health standards New Zealand homes are cold, often at less than 16C. People are adaptable, they can get used to the cold, but there is a point where it becomes physiologically threatening and health issues such as respiratory problems can result. As power prices increase more people turn off the heating and their health suffers, which becomes a cost through hospital admissions.

Resilience is about planning for rising electricity prices and rising insurance costs, as well as severe weather events. Understanding and improving how our houses are designed and used will help us stay healthy and survive the extreme weather events of the future.

The Tools developed by the *Doing Better in Bad Times* research are based on real experiences on the ground. The Tools are leading edge and valuable for preparing for a more resilient future in New Zealand as well as being used by community organisations and government agencies in other countries.

PRELIMINARY LEARNINGS AND NEXT STEPS

Kay Saville-Smith, Programme Leader, CRESA

Recovery from a severe natural event can take many years and communities and older people need information and support to make their homes, themselves and their communities resilient. With good planning these homes can protect, minimise damage and minimise the costs and time in recovery and repair.

Preliminary learnings include:

- The skills, resources and experience of older people are often ignored yet they have knowledge and should be listened to
- Preparation too often focuses on the event, not on the recovery period
- Experts such as engineers and planners need to be readily accessible and easily understood by those wanting to improve their resilience
- Regulation by building permit or resource consent is no guarantee that a house or a site is going to be resilient or is not vulnerable

The knowledge for resilience does not come from experts alone. Experience of older people and how they live is crucial to this research. As part of *Community Resilience and Good Ageing: Doing Better in Bad Times*, these experiences have been captured in the following reports and Tools, which will become available on www.resilience.goodhomes.co.nz

- Housing providers – retirement villages, local government, community housing
- Population and location vulnerability
- Relationship between resilience and sustainability
- Older people and adverse natural events
- Policy and practice recommendations
- Component Resilience Tool
- Dwelling Resilience Tool
- Site Selection Tool
- Flood Experience Tool

There will be a final Summit on this research programme on September 29 2014, at the Rangitane Cultural Centre Ukaipo in Grovetown, near Blenheim.

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Presentations from the May 2014 Summit are now on the website:
www.resilience.goodhomes.co.nz