

Earthquake Preparedness in an Ageing Society

Learning from the experience of the Canterbury Earthquakes

Report prepared for the Earthquake Commission with funding from
the EQC 2012 Biennial Grants Programme

February 2013

Dr Judith A. Davey
Senior Research Associate
Institute of Governance and
Policy Studies

Dr Jenny Neale
Senior research Fellow
Health Services Research Centre

Victoria University of Wellington
New Zealand

ISBN 978-0-477-10393-0 (print) ISBN 978-0-477-10394-7 (pdf)

Table of Contents

Executive Summary	5
Introduction	5
Part 1 - Immediate Impacts.....	5
Part 2 – Long-term Issues	6
Part 3 – Lessons for the Future.....	7
Introduction.....	9
Population ageing and disaster preparedness	9
Vulnerability among older people	10
Research on older people and disasters	11
Research arising from the Canterbury experience.....	12
Research method.....	12
Relevance to EQC policy and planning.....	13
Outline of the report	14
Acknowledgements	14
Part 1: Immediate Impacts.....	16
Meeting basic survival needs.....	16
Keeping up contact and avoiding isolation.....	18
Practical help	21
Valuable initiatives for older people – what helped in the immediate aftermath?	21
Housing.....	24
Health Services.....	25
The Vulnerable Persons Group	26
Issues for residential care	27
Evacuations from rest homes	28
Home support	29
Psycho-social support.....	31
Issues for Residents of Retirement Villages.....	32
Access to financial and legal help	34
Part 2: Long-term issues	36
Moving into the recovery period	36
Psycho-social impacts on older people.....	37
Impacts on older people’s activities	39
Elder abuse.....	40
Transport.....	41
Information for older people.....	41
New Initiatives.....	42
Addington Action.....	42
Home Share.....	42
Canterbury Communities’ Earthquake Recovery Network (CanCERN).....	43
Rockers of Ages Elders choir.....	43
International Day of Older Persons	43
International Active Ageing Week.....	43
Age Concern Canterbury - Home and Personal Safety for Older Persons Campaign	44
Memory Map.....	44
Kaiapoi Community Meals	44
Caring for Carers.....	45
Housing.....	45
Red Zone issues.....	45
Other housing zones	46
Insurance and repair issues.....	47
Uninsured older people	50
Free financial advice	50

Retirement Villages.....	51
Rental accommodation.....	51
Assistance with housing.....	52
Canterbury Earthquake Temporary Accommodation Assistance (CETAS).....	52
Health Services.....	54
Mental Health.....	54
Home support services.....	56
Residential care.....	57
Part 3: Lessons for the Future.....	59
Preparedness and Survival.....	59
Preparedness - Messages for older people.....	60
Preparedness and response - Messages for people working with older people.....	60
Caring for vulnerable older people.....	61
Community-level responses.....	62
Public sector responses.....	65
Learnings for the Health Services.....	67
Residential care.....	69
Mental Health.....	69
Psychosocial needs in the recovery period.....	70
Housing.....	71
Housing initiatives.....	71
Retirement Villages.....	72
Lessons for future planning.....	73
Older people as a resource.....	74
Appendices.....	76
Appendix 1: People consulted.....	76
Appendix 2: Formal publications.....	79
Appendix 3: News media “cuttings”.....	82

Executive Summary

Introduction

The ageing of the New Zealand population and substantial growth in the 85 plus age group mean that, in the future, very large numbers of very old people will be living in mainstream housing – in their own homes - many alone or with a spouse of similar age, many suffering from chronic illness or some level of disability and in need of support. This scenario must be central to future planning for disaster relief and recovery.

International literature emphasises the vulnerability of older people and in many natural disasters they have been found to have suffered disproportionately. Most of the research, carried out by psychologists and health professionals, concentrates on mental health and psycho-social impacts. But there is considerable evidence that older people display both resilience and vulnerability in challenging situations. Authors note the need to take a proactive approach to meeting the needs of older people in the face of their self-effacement and stoicism. Research findings stress the benefit of pre-disaster public information and the need for mutual and self-help in communities. Coordination among relief organisations and identification of vulnerable people by both specialised (for older people) services and general services (power supply, for example) are seen as essential.

The Canterbury earthquakes, beginning in September 2010, sparked a lot of interest among the research community. A great deal of this is not yet available as published reports or does not focus on/separate out older people. Few experiences and initiatives in the immediate aftermath of the earthquakes or in the recovery period have been fully documented or evaluated. The authors have brought together material from a range of sources – reports from public, private and voluntary sector organisations, expert opinions, media items and meeting proceedings.

The report is relevant to the EQC and other organisations concerned with disaster recovery. As they look to the future in an ageing population, they need to consider age-appropriate forms of preparedness and public education, immediate responses, short and long-term housing, support and care services and measures to ensure social connectedness and psychological wellbeing.

Part 1 - Immediate Impacts

Immediately after the earthquake of September 2010 and the much more destructive February 2011 event, there was a great deal of mutual help within neighbourhoods in Canterbury. Supporting one another was vital in helping older people to cope. Older people had similar survival needs to everyone else, but were especially hit by difficulty in moving around, lack of transport and local services, such as shops and chemists. It was difficult for home support services to reach their clients, and many found the lack of normal hygiene facilities difficult. Levels of preparedness among older people varied but were generally perceived to be low.

There were several initiatives to check on older people by phone – notably by the head office of the Ministry of Social Development (using New Zealand Superannuation records). Face to face communication was especially beneficial and door-knocking campaigns were mounted by agencies and voluntary groups ranging from the Student Army to Age Concern. But many older people were unwilling to admit to their needs and certainly did not want to leave home – their home environment provided a sense of security. This brought the risk of social isolation, especially when neighbours and support people moved away. Couples appeared to manage better than single people, especially women living alone. Initiatives to allay anxiety and loneliness were very important for older people. Many showed good psycho-social resilience but others, often with health problems or cognitive difficulties, suffered anxiety, depression and other symptoms.

Immediate assistance for older people after the earthquakes came most frequently from family, friends and neighbours. Where they existed, Neighbourhood Support groups played a major part and were often led by the “young” old. Practical help with immediate clearing and repairs was needed. This was facilitated by liaison officers, working directly and through welfare centres, with Civil Defence, the EQC (and later CERA) and Fletchers. Earthquake Support Coordinators, drawn from the public and voluntary sectors played a valuable role, some specialising in needs of older people. Legal and financial assistance in welfare “hubs” has been valuable to help people understand EQC, CERA and insurance company processes.

The Vulnerable Persons Group, set up by the Canterbury District Health Board, coordinated health services for older people, especially those in hospitals and rest homes. Planning for a possible “bird flu” epidemic stood health services in good stead and lessons from the September event were applied after February. Health-related initiatives included respite care for older people whose houses were uninhabitable or who had special medical needs, and the evacuation of rest home residents within the region and to other centres around the country (and their subsequent “repatriation”). The latter highlighted the need for accessible information and the value of the InterRAI assessment tool¹.

Immediately after the earthquakes, many older people went to stay with relatives and friends, but this was often a short-term measure. Retirement village residents were usually looked after by staff and operators, and also by each other, but where villages were totally destroyed unforeseen difficulties arose over occupation rights agreements. Pay-outs have been delayed by legal and insurance issues, but in general the industry offered help to displaced residents.

Part 2 – Long-term Issues

As Canterbury moves through the recovery phase, mounting frustration with delays and complications over EQC, insurance and bureaucratic processes is evident, and this has extended into political action, regionally and nationally. People are trying to re-establish everyday life; rehouse themselves; get houses repaired and negotiate compensation for loss. Older people in particular are faced with uncertainty and complex decisions, compounded by fear that, at their stage of life, they do not have time to spare. There are problems both for those who stay in their homes - many left behind as family friends and support people have moved away – and those who move to new and unfamiliar communities. Both groups are at risk of social isolation and possible abuse – both from families under stress and from unscrupulous tradesmen and fraudsters when pay-outs come through.

Older people living in Red Zones often find that the government and insurance company pay-outs are not sufficient to rehouse themselves without taking on mortgage debt. This may be hard to secure and hard to manage on low retirement incomes. The result has been downgrading of many older people’s housing situation, erosion of savings (including funeral funds and assets set aside for bequest) or moving into rental accommodation after previously achieving mortgage-free homeownership. Older people living in intermediate zones (TC 2 and 3) are faced with even more complex financial and legal issues as they wait for detailed assessments of their land and houses and face delays and inconsistency over allocation of damage and cost estimates. Many people have been waiting for 18 months or more for a decision, only to find that they have to move and leave the homes and treasured gardens where they had set themselves up for retirement. Older people who were uninsured or under-insured, perhaps as a result of cognitive handicap, find themselves in even worse situations.

General housing assistance is available to older people, including financial subsidies and temporary accommodation (where insurance coverage has expired), but the earthquakes have resulted in considerable strain on the rental market, in which they may find it hard to compete.

Health services in Canterbury appear to have coped well in the recovery period; serious epidemics have been avoided. Older people’s health may suffer from living in damaged homes with inadequate

¹ See <http://www.interrai.org/index.php?id=3>

heating during the cold winters, but hard evidence of this is not available. Mental health problems may emerge as people can no longer cope. Older people and their carers experience anxiety and depression, linked to the prolonged disruption to normal activities. This can be aggravated when dementia is an issue. Health and home support services are addressing problems arising from uncertain staffing and difficult access, assisted by new initiatives such as CREST – a restorative home-based service.

The activities of older people have been affected by the loss of community venues and infrastructure, delaying the possibility of a quick return to normal life and increasing the risk of social isolation. It is harder (and more dangerous) for them to move around on broken roads and footpaths, and public transport has been disrupted. Voluntary agencies and new commercial services have been able to assist with transport. Interesting and innovative projects have emerged in Canterbury to revive social capital and improve morale. Some of these are oriented particularly to older people. They include informal initiatives, such as get-togethers for barbecues; shared meals organised by churches; choirs; Positive Ageing Expos; and intergenerational events. Information dissemination is a good way of assisting recovery. Older people appreciate what is provided through free local newspapers and magazines and by local radio stations. This is not, however, to undervalue face-to-face communication – the comfort of a smile and a hug.

Throughout the recovery phase the dual picture of older people's vulnerability and resilience is clearly illustrated. Many have proved to be valuable resources for recovery in their families, neighbourhoods and communities.

Part 3 – Lessons for the Future

To improve disaster preparedness in an ageing population, public information and education must include material specifically aimed at older people, using suitable media. It should not assume unrealistically high computer access and competency. Age Concern safety courses are a good example of appropriate initiatives. This is in the knowledge that disaster preparedness for older people may relate more to health emergencies than natural hazards. The value of self-help cannot be underestimated – older people preparing themselves; the “young” old helping the “old” old. Practical suggestions include knowing what to do in an emergency, preparing survival kits and information for others (Life Tubes, recording medical conditions, for example), and developing neighbourhood contacts. Such measures are likely to enhance general wellbeing as well as improving chances of survival.

Everyone involved in recovery work also needs to be aware of the implications of having greater numbers of older people in the community. They need to share information on how to reach vulnerable people, understand their needs and capabilities and be proactive in contact with them. There were many examples of good inter-sectoral collaboration after the Canterbury earthquakes.

Initial support for older people came mainly from friends, neighbours and family. Community level organisations worked well together. They set up valuable services, such as door knocking, giving information and raising morale. This suggests greater use of the community development approach in disaster and recovery planning – facilitating and strengthening neighbourliness and connectedness; empowering communities in their own recovery through self-help, reciprocity and local action.

The challenge is to develop this capacity and at the same time to strengthen interaction between the community level on the one hand and local and national government, which is able to mobilise large-scale resources. This is preferable to government agencies trying to “do” recovery for communities, using a top down approach. The aim is to achieve a balance in which communities can be actively involved as well as receiving support. Many of the initiatives and innovations which arose from the Canterbury experience have not been monitored or formally evaluated, even though the findings could be valuable for future planning and action.

Learnings from the Canterbury experience relate particularly to information-sharing, communication, coordination and cooperation. Registers of vulnerable older people are useful in making initial contact after a disaster, recognising the need for repeated contact. There are questions about whether registers should be local or national, general or specific to particular circumstances, for example people living alone, or dementia sufferers. Whoever manages such registers, the key point is that they must be kept up to date. The Vulnerable Persons Group in Canterbury showed its worth in coordinating health service responses and linking them with other needs, including housing. There are many lessons for aged care in the community and in residential facilities – on access to and reliability of records, arrangements for evacuation and respite, having emergency supplies available and the value of planning and mutual aid agreements.

The mental health of older people with existing chronic disease can be threatened in disaster situations. But sub-clinical symptoms, such as anxiety and depression, can often be addressed through social support, assisting people to improve their coping skills and regain a sense of control and normality. A wide range of factors contribute to personal and community recovery and regeneration - the spiritual and cultural as well as social and physical. Psycho-social aspects need to be part of planning and the training of professionals.

Older people share some of the general challenges which have arisen around housing, including the effects of displacement; coping with damage and loss; decisions on repairs and re-housing, and delays in decision-making; lack of clear communication; and shortage of rental options. These are compounded for older people, many of whom feel that time is not on their side. Their financial circumstances may magnify these issues and many have lost the home ownership which had been their lifetime goal. Older people may need help in negotiating the processes of repairing, rebuilding, selling and buying. This applies also to residents in retirement villages. There is a shortage of affordable housing for older people who are displaced. Few housing options are specially designed for their needs. The Canterbury rebuild offers opportunities for these gaps to be filled and for the promotion of age-friendly and universal urban design. This should extend beyond housing into public buildings and community facilities, providing multi-purpose and accessible meeting places for older people and the general public.

The strengths of older people in volunteer and community action are well illustrated in the Canterbury situation, especially at the neighbourhood level. Stereotyping older people as vulnerable leads to under-valuing their potential contribution and missing a valuable opportunity. As well as being the recipients of support after a disaster, older people are clearly an effective resource in the immediate aftermath and the recovery period.

Introduction

Population ageing and disaster preparedness

Population ageing is frequently defined as growth in the percentage of the population above a certain age; 65 is frequently taken as the lower threshold of the “older” population, related to the age of eligibility for New Zealand Superannuation. There are currently around 550,000 people aged 65 and over in New Zealand. This figure is likely to grow rapidly over the next 20 years as the large birth cohorts of the 1950s and 1960s move into this age group. The percentage of the population aged 65 and over is expected to grow from 13% in 2011, to 19% in 2026 and 25% in 2051 (1,444,100 people)². The older population is itself ageing. The number of New Zealanders aged 85 and over is expected to increase from 55,000 in 2005 to 320,000 in 2051, i.e. by almost 500% (Dunstan and Thomson, 2006).

Within the older age groups there are considerable differences in living arrangements by age and gender. Around 80% of people 65 and over live either alone or with a spouse/partner only. The proportion of people living alone increases with age, from 24% of those aged 65-74 to 41% of the 75-84 age group and 56% of people 85 plus, and is higher for women. At age 85 plus, a third of men and two-thirds of women live alone. This proportion has been growing steadily over recent decades. Older men are much more likely to be living in couple-only households than older women. It is among this group – of very old people living alone in the community, or with only a spouse of a similar age, that vulnerability is likely to be evident, bringing the need for outside support.

These trends and characteristics are mirrored in the population of Christchurch, which was 348,435 at the time of the 2006 Census. At that time, Christchurch had a slightly higher proportion of people aged 65 and over and a higher median age compared to the country as a whole (Table 1).

Table 1 – Characteristics of Population- Christchurch and New Zealand (2006 Census)

2006 Census	Christchurch	NZ
Median age	36.4	35.9
% aged 65 plus	13.5	12.3
Ditto in 2026 – Projection 5 (medium)	21	19
% of households owned with or without mortgage	57.6	54.5
Average size of household	2.5	2.7

In 2006, the city had a slightly higher proportion of owner-occupation and a lower average size of household compared to New Zealand as a whole. These characteristics are linked to ageing. Of households in Christchurch with one or more member aged 65 plus, 47% are one-person households and 36% couple only households (about the same as national percentages). This compares to 26% and 24%, respectively, for all households in Christchurch, as at 2006.

The pre-earthquake population of Christchurch, according to Statistics New Zealand (SNZ), was 376,000 at 30 June 2010.³ The population declined by 13,500 (3.6%) in the period up to 30 June 2012. SNZ estimates indicated that people aged 50+ were less likely than people of other ages to have left Christchurch over this period.

The population of Christchurch is already slightly older than the national average⁴. In mid-2011 it was estimated that people aged over 65 made up 14.4% of the population. Prior to the earthquakes the population was projected to increase by 60,300 to 422,000 by 2031, with over three quarters of the

² Series 5, middle level projection. Statistics New Zealand. *National Population Projections, 2006 (base) – 2061*. <http://www.stats.govt.nz/>

³ http://www.stats.govt.nz/browse_for_stats/population/estimates_and_projections.aspx

⁴ Christchurch City Health and Wellbeing Profile 2012. www.healthychristchurch.org.nz/city-health-profile

increase in the 65 plus age group⁵. The number of people 65 plus was predicted to double, from 48,510 in 2006 to 95,290 in 2031 (from 13% to 23%) with even greater growth among the 85 plus population.

The impacts of the earthquakes are likely to upset the population projections, but the demographic trends will persist and need to be factored into post-quake community and neighbourhood planning. Pre- and post-earthquake analysis by the Christchurch City Council suggests that there has been a fall in the quality of life for older people with respect to transport options, recreation and leisure options, access to essential services, residential and respite care capacity. These can be set alongside increases in local health sector, government department and NGO responsiveness⁶.

Vulnerability among older people

Older people, with some level of disability or impairment, are clearly among the groups who are most vulnerable in earthquakes or disasters. Their special vulnerability and limitations during and after a disaster stem from a range of factors. These include not only health-related conditions, but also economic constraints, dislocation of housing and everyday life, and social isolation. Fernandez, Byard, Chien-Chih, Benson, and Barbera (2002) point out that, because frail elderly people use their whole functional capacity for basic survival, they may have no reserves to cope with even minimal stress.

A high proportion of older people, especially those over 80 years old, have one or more chronic conditions or physical limitations which make them more vulnerable than healthy people after a disaster (Aldrich and Benson, 2008). In earthquakes older people may be unable to “drop, cover and hold” or quickly evacuate a building. Sustained power outages can impact on life support equipment, such as oxygen supply, heating, electric wheelchairs and water pumps. Damage to transport systems may mean that service providers (rescuers and home help services) cannot reach older people. In many situations, such as the 2011 earthquakes and tsunami in Japan, older people suffered higher injury and death rates than other age groups. There, the oldest old survivors were most at risk from hypothermia, dehydration and respiratory diseases⁷. During hurricane Katrina in the USA, 75% of those who died were aged over 60, while this age group represented only 16 % of the local population⁸. Older people may require longer recovery from injury, but medical infrastructure (hospitals and rest homes) may have been damaged or destroyed, possibly leading to reduced or inappropriate medical treatment.

Aldrich and Benson (2008) point out that stress, lack of food and water, extremes of heat and cold and exposure to infections can contribute to rapid worsening of chronic illness that was under control. In addition to reduced mobility, diminished sensory awareness (hearing, sight, smell and taste) can make it harder for older people to understand emergency instructions, to avoid contaminated food and water and to manage alone. Although some evidence suggests that older people recover better after disasters than younger people, many may still require social support to mitigate the effects of stress. Asserting their independence and stoicism, they may be reluctant to leave home or to register for disaster assistance.

⁵ Christchurch City Council, Draft Community Profile: Older Persons Sector, 2011.

⁶ Gail Payne, Christchurch City Council, personal communication.

⁷ Cunningham, R. (2011, March 23). *Situation worsens for older Japanese post-earthquake*. HelpAge International. <http://www.helpage.org/newsroom/latest-news/situation-worsens-for-older-japanese-postearthquake/>

⁸ Bidwell, S. (2011, April). *Long term planning for recovery after disasters: Ensuring health in all policies (HiAP)*. Community and Public Health (CPH) for Healthy Christchurch. Version 1, 11, Information Sheet Summary.

A Disaster Mental Health Response Handbook, published in Sydney, quotes a range of academic publications, mainly from the USA⁹. The authors suggest that older people are the group most likely to suffer in natural disasters, owing to “age-related slowing of both cognitive and motor activity, lower financial status, and decrease in sensory abilities” and provide a long list of negative effects. Existing problems with sight, hearing and mobility may place older adults at higher risk for physical injury. For example, after an earthquake in California, the major injuries among the older adults were fractured hips resulting from attempts to ‘run’ outside.

Older people on fixed incomes may be in special need of financial support during the recovery phase, especially for housing. They may have smaller financial reserves and lower insurance cover. Their situation, for example as debt-free homeowners, may mean that they do not meet the qualifications for assistance. The Sydney handbook suggests that older adults may feel they are ‘too old’ to start over. The authors recommend comprehensive assessments when working with older adults and interventions that include providing comfort and taking time, breaking down the process into small steps and achievable goals. Given that older adults may be reluctant to request assistance or seek outpatient mental health services, a traditional ‘office’ approach in which clients are self-referred may not be effective. Crisis intervention should therefore assume a proactive approach in identifying older adults in need of services. This may involve active case-finding and outreach services in the community, assisting older disaster victims with the variety of practical problems arising during the impact period, such as needs for housing, medical care, material aid and social services (Norris et al, 2002). Many of these findings rang true in the aftermath of the Canterbury earthquakes.

Research on older people and disasters

The academic literature is scarce on how older people fare in disasters, especially after earthquakes. Most of what can be found concentrates on mental health, psycho-social impacts and the definition and evaluation of loss. Some studies also examine the use and role of external aid sources, physical impacts, financial response and recovery.

Such studies have usually been undertaken by social psychologists and health professionals, and this is reflected in the measures used to gauge the impacts of disasters on older people: morbidity and mortality; levels of stress, distress, depressive symptoms and anxiety; exposure to injury, loss and displacement; coping skills and resilience. Moreover, these studies have often come up with contradictory findings. Some show lower levels of post-disaster morbidity among older people and that they cope and recover relatively well. Some find no difference between younger and older survivors. These differences are often explained by methodological factors, such as length of time between the disaster and data collection, or the use of lists of subjects drawn up by aid agencies (older people may be less likely to use such agencies than younger people). As this report will show, older people exhibit both resilience and vulnerability, and researchers need to be open to both types of reaction. Some overseas studies confirm the resilience of older people. Even though they represented an extremely high proportion of Hurricane Katrina deaths, and relocation caused great stress, their prior experiences helped older people to cope (Kamo, Henderson and Roberto, 2011).

Ticehurst, Webster, Carr, and Lewin (1996) carried out a postal survey after the Newcastle (Australia) earthquake in 1989. Their findings are consistent with the hypothesis that older people are more vulnerable to the psycho-social effects of disasters. As a result of the earthquake, compared to younger subjects, older people were found to be: more distressed, and those who were more exposed were more distressed but less likely to use disaster-specific services for counselling and other support. An interesting result was that lack of social support was not associated with higher levels of

⁹ New South Wales Institute of Psychiatry & New South Wales Department of Health, Centre for Mental Health. (2000). *Disaster Mental Health Response Handbook: An educational resource for mental health professionals involved in disaster management*. Sydney: Centre for Mental Health. This document quotes a range of academic publications, mainly from the USA.

distress. This could indicate that disasters may actually improve social relationships, where aid services target older people.

There is some information on strategies to assist older people after disasters, mostly from the USA and relating to floods or storms. Fernandez et al. (2002) suggest that older people could take responsibility for themselves in many ways if they are educated for preparedness and response. The AARP advises older people to plan ahead, stock up, talk to friends and neighbours to learn how they are coping - "knowing you aren't alone can help ease the stress", stay connected, maintain health, and turn evacuation into "an interesting visit to someplace new"¹⁰. Another useful resource is the American Red Cross *Disaster Preparedness for Seniors by Seniors*. Public education, extending to the family and friends of older people, and public service announcements, such as those calling for people to check on elderly neighbours, are also recommended.

Aldrich and Benson (2008) emphasise the need for strong partnerships and coordination between public health, services for older people, and emergency responses, developed before disasters strike. Communication and information sharing is essential, as well as appropriate information, accessible in a timely way, such as mapping systems to identify areas with high concentrations of older people and people with disabilities. Special shelters and evacuation systems are needed for these groups, with attention to medical needs. This might include identification and tracking methods for older people and their health information.

Other commentators suggest that it may not be necessary or desirable to create new services just for older people, but rather to use leverage from existing organisations, sensitise them, and encourage disaster planning principles in their operations. This would include setting up databases of frail people and their carers. For example, some utility companies have lists of Life Support Equipment customers. Again the point is made that aid distribution systems may need to be proactive rather than waiting for requests from older people.

Research arising from the Canterbury experience

The overseas literature provides a background for investigating the impacts of disasters on older people, but these findings are not always directly relevant in New Zealand. The Canterbury experience has sparked a great deal of interest among local researchers. As with the international scene, much of this is health services and psycho-socially oriented. The University of Canterbury has a large database of planned earthquake-related research¹¹. RHISE (Researching the Health Implications of Seismic Events) is an inclusive, informal, collaborative group of researchers, supported by health authorities in Canterbury. The Joint Centre for Disaster Research (JCDR) has a special interest in community responsiveness and emergency management planning. Many of the projects associated with these initiatives are only marginally relevant to older people and many had not published any findings up to the time when this report had to be finalised. Exceptions include Sue Carswell's reports on aged care (Carswell, 2011 and 2012), papers based on Michael Annear's thesis work¹² and a 2011 edition of the New Zealand Journal of Psychology¹³.

Research method

Our proposed methodology for the research was a meta-analysis. When a large body of information is generated, differing in approach, objectives and disciplinary orientation, and being released to a variety of audiences at different times, this is an appropriate research method to use. Meta analysis is

¹⁰ AARP. (n.d.). *Dealing with Disaster*. Washington, DC: AARP, p.23.

¹¹ Access to this was provided by Jessica Peterson of the University of Canterbury.

¹² Annear, M. (forthcoming). Urban environmental pathways to active ageing: a participatory investigation amidst natural disasters. Doctoral thesis, University of Otago.

¹³ The New Zealand Journal of Psychology, 40(4), 2011.

defined as “as set of techniques for summarising the findings of several studies (Fitz-Gibbon and Morris, 1987, p. 132). Meta analysis can be applied to both quantitative/statistical data and also to a synthesis of qualitative research. Noblit and Hare (1988) applied the technique in the field of education; Britten et al. (2002), Atkins et al. (2008) in health. Meta analysis aims to bring ‘order, structure and meaning to the mass of collected data (Marshall and Rossman, 1989, p. 112) by applying ‘systematic and critical scrutiny (Lewins, 1992).

In this case, in addition to published sources, the “grey” literature has been used, that is material from newspapers, magazines and broadcast media, as well as the newsletters and reports of organisations and their web-sites. Material for the meta-analysis has been accessed using a variety of search tools, mainly on-line, including the Canterbury University, JCDR and RHISE databases. Further references have arisen through meetings, email and telephone contact with a wide range of informants in the Canterbury region and beyond. The research design included interviews with key informants to explore issues relevant to older people which arose immediately after the earthquakes and also in the longer term. These informants include people from central and local government agencies, the voluntary sector and community welfare groups (Appendix 1).

Information gleaned from meetings in Canterbury became much more important for the project once it became clear that few of the experiences and initiatives arising from the earthquakes had been documented and written material was not available; that much of the planned research was not directly relevant to older people; and that published research results would take a long time to appear. This has forced us to rely much more on impressionistic and anecdotal information gained from individual and group interviews and meetings. This in itself is valuable and must be respected as valid, given that it arises from the authentic experiences of people who have worked through the aftermath of the earthquakes, in both the immediate and long term. We have presented the material as illustrative of situations, initiatives and knowledge, giving greater weight to issues mentioned by several informants (the “saturation “approach)¹⁴.

Relevance to EQC policy and planning

Population ageing means that, in future, New Zealand will have much higher numbers of older people, especially people aged 80 plus. A high proportion of older people will remain in their own homes until the end of their lives, consistent with their personal preferences and also in line with the policy of “ageing in place”, now widely accepted in OECD countries (OECD, 2003). Most of these will be living alone or with an elderly partner. With increasing age come higher levels of chronic illness and disability, so the majority of people aged 80 plus require some level of support in their everyday lives.

Policy-makers at all levels need to be prepared for the impacts of natural disasters on an ageing population, especially where dependent elderly people, living in the community, are concerned. They need to consider forms of preparedness and public education appropriate to an ageing population, immediate responses after an earthquake or disaster, provision of appropriate forms and quality of housing and everyday services, both short-term and long-term. The availability of support and care services and measures to ensure social connectedness and psychological wellbeing are also essential and need to be tailored to the needs of older people. Older people also have special requirements for housing in terms of location, design and configuration, and the availability of assistive and protective features. These need to be taken into account when planning for relocation after a disaster, if required, and in ensuring adequate housing in the recovery phase. At a later stage, re-housing older people in repaired or reconstructed housing has social, economic and policy implications. These include their financial circumstances, insurance coverage, ability to refinance housing, issues related to rest homes, retirement villages and pensioner housing and the use of home equity.

¹⁴ Published material is cited in the text by author and date with full references in the bibliography (Appendix 2). Other materials – personal communications, media articles and unpublished reports – are referenced in footnotes. Important media items are listed in Appendix 3.

Outline of the report

Part 1 covers the immediate aftermath of the major earthquakes which affected Canterbury in 2010 and 2011, beginning with the survival stage. Issues related to health services, residential and home-based care, housing and psycho-social support were especially important for older people. Forms of support which were especially helpful are highlighted.

Moving into the recovery period, Part 2 again focuses on housing and health service issues. Many of these, especially problems associated with housing repairs, relocation, insurance and financial matters, were experienced by the Canterbury population as a whole. More positively, in the longer-term, new initiatives developed to assist in psycho-social recovery. Older people not only benefitted from these but were also among the prime movers.

Part 3 of the report brings together lessons and learnings, intended to be useful for the future in an ageing population. These lessons are aimed at community, public and voluntary organisations and service providers and also at older people themselves. There is much to learn from the Canterbury experience in terms of preparedness and planning.

Acknowledgements

This research was funded by the Earthquake Commission through their contestable 2012 Biennial Grants Programme. The authors are extremely grateful to the EQC for their financial support.

The authors would like to acknowledge and thank all those who contributed material and views used in this report. Their names are listed in footnotes and in Appendix 1. We very much appreciate their interest and willingness to give us their time, especially when many of them are coping with the effects of the Canterbury earthquakes in their own personal lives. John Patterson was especially generous in allowing us to quote from his recorded personal experiences and on-going activities to assist older people in Canterbury.

We would especially like to thank Sue Carswell for reviewing the draft report and offering many valuable comments.

Jacob Daubé, from the Health Services Research Centre at Victoria University of Wellington, assisted by researching media articles and formatting the final report.

Quake Poem 5 – The Tarp¹⁵

Our roof is broken.
Tiles cracked. The chimney shattered.
The light gets in, slivers of air slicing to soft pink heart.

Our roof is broken.
When the rain falls it
will scribble decay on
the ceiling. We will lie
in our white bed and
read above our heads the end of things.

Our roof is broken.
We should cover it with
plastic, tie the tarp tight
at each corner so that
when the wind blows
it will not lift the lid
beneath which we lie
in our white bed, two bare bald crinkled things.

We will look up as the roof
lifts. The air will come in,
tickling our stuff with
speculative fingers, rain will fall on our bare faces.

But we are too timid for
the tarp. The ladder sways.
There is so far to fall.
We might never stop.

Then Hayden comes in
his new truck. He runs
up the rungs, walks on
the broken tile. He ties the
tarp while we stand
below, looking up: bare, bald, crinkled.

And that night we lie in our white bed as rain falls

pip

pip

pip

on Hayden's new tarpaulin.

¹⁵ By Christchurch writer and poet Fiona Farrell. From *The Broken Book*, Auckland University Press, October 2011. Reproduced with permission of the author.

Part 1: Immediate Impacts

The Canterbury region has experienced a series of significant earthquake events since September 2010 and many thousands of aftershocks of lower intensity. In addition to physical destruction of buildings and infrastructure, this prolonged shaking has led to psychological distress and social upheaval for many people. Acknowledging this, the discussion of immediate earthquake impacts in this section of the report focuses on the Richter Scale 7.1 earthquake which struck at 4.35 a.m. on 4 September 2010 and the 6.3 event, which occurred at 12.51 p.m. on 22 February 2011. The latter caused the most widespread and significant destruction and resulted in the loss of 185 lives. Other large aftershocks occurred on the 13th June and 23rd December 2011.

Meeting basic survival needs

After personal safety was assured, the main survival needs for the Canterbury population were water and food supplies, power for light, communication and heating, and sanitation.

John Patterson (aged 75), from the north-east suburbs of Christchurch, provides a personal account of the aftermath of February 22¹⁶:

When it stopped we found we had no water, no electricity and we were locked in. All the doors leading to the outside were jammed. I got through to the garage, disengaged the garage door and pushed the door up. Looking down the drive I could see the whole street was flooded. Water was bubbling out of the ground all over. It looked as if it was boiling. Then the sand started coming up - liquefaction - that's the word we all have imprinted in our brains. I put my gum boots on and went down the drive. I met a neighbour and we went checking other houses, particularly the houses where old people live. All were safe and well so we went back to inspect our own houses. The bricks on the back wall had collapsed, walls inside are all cracked, and doors sticking. There is a big crack in the concrete floor from one side of the house to the other, but for now the house is safe and liveable. There were cars stuck all over the place, one SUV was stuck in a big hole in the middle of the road, it looked like a ship sinking at sea with its rear end sticking out of the road. It was just like the aftermath of an air raid during the war.

Older people shared these experiences with the rest of Cantabrians. McColl and Burkle (2012) outline the situation:

Eighty per cent of the water and sewerage system in Christchurch was severely damaged. Flooding was common due to sunken land, damaged storm water drains and burst water mains. In some areas there was no reticulated water for up to two months. Rest homes were without mains water for between one and five weeks. The Salvation Army contributed three mobile, custom-designed shower units comprising 21 shower and changing cubicles. Potable water, which still required boiling before use, was distributed by tankers to central points for collection by residents. For many months residents were required to conserve water and to flush toilets (which usually came back into use within 3-6 weeks) sparingly.

Many thousands of portable and chemical toilets were distributed. They remained in use for months in the worse affected areas (even up to mid-2012). In cold weather, the use of outdoor portable toilets became a trial, especially at night. Many older people had great difficulties with chemical toilets, which were too low for them to use, had no handles, were heavy and hard to empty¹⁷. Therapy Professionals (physiotherapists) advertised an over-chemical toilet frame (\$42.50 plus GST) – an enterprising response to the needs of older people. To ease the difficulties, an Age Concern

¹⁶ John Patterson, personal communication.

¹⁷ The situation was illustrated in diaries kept by older respondents in Michael Annear's thesis research.

community nurse suggested the use of black bags and kitty litter in toilets rather than using chemical or portable facilities. However, there was still the problem of disposal of waste.

In the winter of 2011, there was great concern that the lack of heating in homes would affect vulnerable older people. Several patients were sent by ambulance to hospitals to be kept warm. In June, the Red Cross announced heating subsidies for people aged over 65 living in damaged homes¹⁸. The subsidy paid \$100 a month directly to electricity retailers from June to September (this offer was repeated in the winter of 2012). More than 5500 residents were believed to be eligible to apply for the subsidy. The Press quoted a 74 year-old woman from St. Martins:

The chimney was damaged and considered dangerous, so it's been knocked down . . . so I've lost my log burner and I'm definitely missing that. The kitchen and living areas are really cold and it can be a little damp too . . . it's an old wooden cottage and I can't put insulation in that part of the house because there isn't enough roof space. The only other heating source is an old heat pump - that won't be enough to heat the house.

Other assistance came through Age Concern, and winter heating for older people was prioritised by Fletchers in their repair programme, through their “clean heat hub”. The EQC dropped off cards at community centres and other places to ensure that people knew where to go and what to do in the first instance¹⁹. A follow-up report in The Press²⁰ suggested that older people were slow to apply for the winter-heating grants. A Red Cross spokesperson was reported as saying:

..the elderly should not be the part of society that just accepts everything. We're really wanting people to apply for the grant. Elderly people are always the ones that go without when they shouldn't.

In the early days after the earthquakes, with electricity cut off, people emptied out their freezers and used barbecues or camping gas stoves for cooking. Many commercial food retailers, warehouses, and stocks were damaged in the earthquakes. Several suburban supermarkets were destroyed and access to shops was complicated due to road damage, making shopping especially difficult for older people with limited mobility. Supplies were brought in from other centres, but delivery was hampered by damage to transport systems. Civil authorities arranged emergency food drops to welfare centres. Older people were affected by the loss of Meals on Wheels services, which ceased to operate for four days, and by the interrupted delivery of frozen meals. Many had depended on local dairies, service station shops and pharmacies, which were closed (McCull and Burkle, 2011)²¹. But help was not slow in arriving²²:

Friends of the family in Invercargill had driven up in their truck, loaded up with fresh bottled water, toilet paper, a generator, gas burners for boiling water, camp stoves, batteries, everything you can think of to survive. We could use the generator to charge up people's cell phones. It ended up at a friend's house keeping their freezer freezing.

The hazards of moving around in suburban areas – cracked footpaths, holes in the roads, flooding and liquefaction and disruption to bus services – made it difficult for older people and many didn't leave their homes. Their risk of falls increased because of unstable floors and paths. Older people with cars often lost their confidence to drive when confronted with broken and flooded streets. Many have not driven since.

¹⁸ Stylianou, G. (2011, June 01). Heating grants for city's elderly. *The Press*, p. A.9

¹⁹ Fletchers, personal communication.

²⁰ Stylianou, G. (2011, June 11). Few apply for heating subsidy. *The Press*, p. A.17

²¹ Of the 130 pharmacies, only 49 provided services that functioned close to normal.

²² John Patterson, personal communication..

The value of traditional analogue telephones was emphasised after the earthquakes²³. Liz Baxendine (aged 78), then National President of Age Concern and a Christchurch resident, remarked²⁴:

Now-a-days we all have modern digital telephones which work well when the electric power is working but are useless when it's not. Cell phones are OK till the battery goes flat. Fortunately we kept our old phone which doesn't need power, so I plugged that in.

Cell phones were not working for some time due to overloading and loss of power supply to some communication towers. Once restored, telephone helplines were extremely useful. Texting became easier than calling, but many older people are not familiar with this form of communication. Computers shut down every time the power failed. Many older people reported that battery-powered and wind-up radios were a good source of information, and talk-back radio at night kept them company. Free newspapers provided community links, when deliveries were re-established.

It has been difficult getting information. Listening to the radio we are told which websites to look up to get the necessary information. It's rather difficult to find a website when there is no power²⁵.

Reports from the various community and neighbourhood support services suggest that older people tended to remain in their homes if at all possible. Many did not seek help because they didn't want to be moved. Where they did move, often no one knew where they were going. One commentator suggested that what has been seen as "resilience" among older people may reflect lack of choice and the necessity to just "keep on going". Many more able older people offered help as well as being recipients, by providing immediate support in their neighbourhoods, checking on less able elders and participating in emergency management teams²⁶.

Levels of preparedness among older people varied considerably, but were generally low, according to Dave Wilkinson of Neighbourhood Support²⁷. The Life Tube concept, promoted by Age Concern was valuable in some cases. Life Tubes are small sealable plastic containers with a red label, which contain information on the resident's medical conditions, medications, doctor, next of kin, and contact numbers to be used by emergency services²⁸.

Keeping up contact and avoiding isolation

Concern for older people in the immediate aftermath of the earthquakes prompted several initiatives to contact them in person and/or by telephone. After September 4, the Ministry of Social Development acted immediately, to telephone all New Zealand Superannuation recipients who were living alone²⁹. They were asked about their needs and if they had someone nearby who could help

²³ Neighbourhood Watch Australasia Inc, Newsletter, Vol. 6: 1 March 2011, pp 18-21.

²⁴ Liz Baxendine, personal communication.

²⁵ Liz Baxendine, personal communication.

²⁶ Kim Wright, Geological and Nuclear Sciences, personal communication. This agrees with the research findings of Louise Thornley and Jude Ball, personal communication.

²⁷ Dave Wilkinson Neighbourhood Support, personal communication. The wish to stay at home is also mentioned in literature, including New South Wales Institute of Psychiatry & New South Wales Department of Health, Centre for Mental Health. (2000) *Disaster Mental Health Response Handbook: An educational resource for mental health professionals involved in disaster management*. Sydney: Centre for Mental Health.

²⁸ Age Concern. *Life Tubes* (n.d.). <http://www.ageconcern.org.nz/safety/home-safety/life-tubes>. It is recommended that the containers are kept in refrigerators, with a red sticker on the door. This alerts police, ambulance, fire service, friends, caregivers or neighbours, to look inside for a Life Tube. The refrigerator is recommended as an "emergency information storage vault" because it is large, likely to survive earthquakes, usually found in the same place, and almost all homes have one.

²⁹ Sandra Kirikiri, National Manager Senior Services Delivery, Ministry of Social Development Head Office, personal communication.

them. The MSD telephone service successfully contacted 96% of the 23,200 older people targeted³⁰. Where contact could not be made, such as where people had no phone or where needs were evident, local specialist teams visited in person. In some cases taxis were sent to the address to check or to help people get out to shop. The service also received calls from family, friends and neighbours of older people.

The MSD exercise was repeated after the February 22 earthquake. This time calls were extended to partnered superannuitants, people receiving Disability Allowances and selected people on Invalids Benefit. After both events, telephone operators were able to send requests for help to a regularly monitored email box. The older people were rung back to inform them about what would happen and to seek their consent to a visit, if this was appropriate. This recognised that door knocking without credentials could be threatening; that older people are keen on their privacy and to reinforce their ethos of independence and staunchness.

No data is available to evaluate the MSD service beyond the number of calls made. The impression gained was that people were very grateful to be contacted and that most were coping well.

Other proactive telephone contact services for older people were set up by GP practices and manned by practice nurses, by Grey Power³¹ and Age Concern, specialised agencies such as the Alzheimers Society and by Te Runanga of Ngai Tahu Earthquake Response³². Within days of the September earthquake the latter launched a phone campaign to contact everyone aged 65 plus on their whakapapa database living in Christchurch and surrounding areas. Calls were conducted by runanga staff operating from home or from the Ngai Tahu seafood plant and offices, which were unaffected and provided accommodation for staff.

Telephone counselling and help lines were up and busy the day after the earthquake, through official channels, the Red Cross and voluntary agencies. Telephone contact was used to set up visits by agency staff and volunteers – from the Red Cross, Salvation Army, Age Concern, Civil Defence, Ngai Tahu and others. There was certainly duplication in these efforts, but this was probably justified by the reactions of many older people who would only admit to their needs when the third or fourth door-knocker (or someone they knew) called, assuring earlier visitors that their needs were not as great as other people's.

In common with many other Cantabrians, older people were clearly in need of comfort, reassurance and an opportunity to talk. McColl and Burkle (2012) emphasise the importance of face to face communication in the immediate post-quake periods, with people gathering, especially in their neighbourhoods, to support, and gain strength from one another. Sue Carswell's interviews with residents of rest homes and retirement villages found that supporting one another was one of the most important things which helped them to cope after the earthquakes (Carswell, 2012). Publicity campaigns called upon people to check on their neighbours; to provide for and accept help from people they did not know before the disaster. John Patterson reported:

People's emotions are all over the place, sometimes we are up and sometimes we are down. We have teams of counsellors going around the city but the best counsellor is the friend down the street who calls you to say they have the kettle on and to come round for a cuppa, or knowing you can nip next door any time you need a chat. It is neighbour looking after

³⁰ Ministry of Social Development. (2011). *Annual Report 2010/2011*. Wellington: Ministry of Social Development, p.7.

³¹ Grey Power used telephone trees to contact their members. Their main role was in coordinating relief and managing donated funds. Grey Power representatives also visited politicians in the aftermath of the earthquakes to lobby for the needs of older people. Miles Jackson and Ian Brownie, personal communications.

³² Families Commission. (2012). *Partnerships with Māori. He Waka Whānui: A Families Commission Research Report*. 1/12. Wellington: Families Commission.

neighbour, friend looking after friend and families looking after each other that will get people through.

Civil Defence organised teams to assess the state of Christchurch residents' houses and their welfare needs immediately after the February earthquake³³. "Operation Suburbs" sent teams of Christchurch City Council building officials, engineers and welfare officers into the worst affected areas, so that building safety and welfare needs could be covered at the same time. Welfare volunteers from organisations such as Red Cross and the Salvation Army checked door to door to identify older people who needed help. The most vulnerable people were those who were not part of any social network and who did not access home support services (Carswell, 2012). At the same time "Operation Shop" was mounted, to assess the safety of buildings providing essential services, such as supermarkets, doctors' surgeries and pharmacies.

Community organisations also responded to the need for comfort, talk and support, as reported in The Press.³⁴

A St Albans soup kitchen is tempting earthquake-hit elderly out of their homes for a hug and some food. Neighbourhood Trust's new projects worker, Ginny Larsen, said some older people were too scared to set foot outside their house. "For some it's an absolute fear that's gripped them and they voice the sentiment that something bad is going to happen to them if they go outside the house," she said. "If it gets a hold of you, it just gets worse and worse."

Since late February, the trust – the community arm of Christchurch's St Albans Baptist Church – had been running a soup kitchen, where older people could drop in for a free lunch, she said. "For those who are isolated, it's about bringing back that enjoyment to their daily life and something to look forward to," Larsen said. "Quite a few are in streets where their neighbours have gone. They are very isolated and if something happened to them, who's going to know? Who's looking out for them? Are they eating properly? Are they cooking for themselves?" Those who came to lunch started to feel better by talking to others and doing something normal, she said.

This example highlights the risk of social isolation for older people after the earthquakes. Stephen Phillips, Age Concern Canterbury chief executive, expressed his concern that some older people were being left to fend for themselves after their local support people moved away. Neighbours would help out initially, but as time went on, older people could be forgotten. Phillips urged people to continue to keep an eye on elderly neighbours and help out when they could. He said the elderly were often stoic, saying, "I'm OK; there are a lot of people worse off than me". A few questions soon showed that they were not doing well and needed help.

The responses of older people after the major earthquakes were graphically reported in diaries kept by Michael Annear's research participants and photographs which they took at the time³⁵. The home environment, even if damage was evident, provided a sense of security and sanctuary. Perceptions of the local environment could either promote activity by facilitating interaction with neighbours or deter activity where accessibility was compromised, transport disrupted and activity destinations out of commission.

Other influences on how well older people coped after the earthquakes included opportunities to give and to receive family support and care; participation in and assistance from local communities, including churches and service groups. The ability to maintain routines from before the earthquakes

³³ Christchurch City Council. *CDEM: Operation Suburb*. (2011, February 24). <http://www.ccc.govt.nz/thecouncil/newsmedia/mediareleases/2011/2011022406.aspx>

³⁴ Todd, R. (2011). *Some old folk isolated*, The Press, p. A.7.

³⁵ Michael Annear, Community Symposium, 18 May, 2012. *Active Ageing in Christchurch Study*.

was helpful. Annear points out that positive activity by older people was encouraged by supportive environments, but occurred even in the absence of such support. Resilience was clearly evident among older people in Canterbury. While 60% of Annear's respondents reported no impact on their mental health as a result of the September earthquake, those who were also involved after the February earthquake reported consistently higher rates of disruption to their previous activity patterns.

Practical help

As well as company and reassurance, many older Cantabrians were in need of practical help. It appears that couples managed better than single people, especially older women living alone. Difficulties ranged from opening bottles of water where hands were too weak and emptying chemical toilets, to finding alternative accommodation where houses were destroyed. Neighbours were frequently the first source of assistance. Volunteers from a range of organisations assisted with domestic tasks both inside and around the house, often mobilised using social media. John Patterson reported:

A neighbour asked if I could find some help to get the liquefaction away from her house. I rang C, she put a message on Facebook and in less than 45 minutes a dozen big young men from Rangiora Rugby Club arrived with shovels and barrows and cleared her section in no time.

University students organised themselves into an army of helpers, also using social media to get help and to assist them in documenting and dispatching welfare requests. Help4U, a national health information and advocacy social enterprise organisation based in Christchurch, responded to the call and worked with Comfort Crusaders³⁶. The latter is a not-for-profit student volunteering organisation established in February 2011 with a welfare focus to deliver essential items or make referrals to existing services (Poulsen et al., 2011; Carswell, 2012). Farmers (the Farmy Army) came to town with their tractors and diggers and helped clearing up.

In the aftermath of the September earthquake, and added to after February, Fletchers Earthquake Recovery division (EQR) set up "hubs" in quake affected areas³⁷. The purpose of these was to oversee the reconstruction and repair work in the three local authority areas of Christchurch, Selwyn and Waimakariri³⁸. In addition to EQR project management personnel, every hub had a community liaison officer (CLO) to explain the processes for home repairs and visit the homes of vulnerable customers. When a home repair was initiated, the contract supervisor arranged for visits and follow-up. Making people aware of what Fletchers was doing and checking on the progress of claims were part of the CLO role, working with family members in the case of elderly people³⁹. Age Concern community workers and nurses and church groups also assisted in finding respite care when vulnerable older people were moved out to allow repairs to be undertaken.

Valuable initiatives for older people – what helped in the immediate aftermath?

³⁶ Comfort for Christchurch. *Info*. <http://www.facebook.com/comfortforchristchurch/info>. "Comfort Crusaders" have been visiting elderly homes and badly affected areas - bringing a tiny bit of hope to any one just wanting some company. We are distributing baking of all sorts and bottled water while also knocking on doors and checking in on residents and visiting, and we are also collecting information for EQC while we are out on the streets."

³⁷ The building company, Fletchers, were contracted by the EQC to conduct emergency repairs and repairs assessed as costing between \$11,500 and \$115,000, i.e. "under cap" for EQC coverage.

³⁸ Rebuild Christchurch. *Recovery Hub Locations*. (2011, February 16).

<http://www.rebuildchristchurch.co.nz/blog/2011/2/eqr-earthquake-recovery-hub-locations>

³⁹ Fletchers, personal communication.

The following initiatives involved older people both as providers and as recipients of support in Canterbury after the earthquakes. This is intended to provide examples rather than a complete coverage.

Neighbourhood Support groups - Immediate assistance for older people after the earthquakes came most frequently from family, friends and neighbours. Pre-existing Neighbourhood Support/Crime Watch groups played a major part, where they existed. These were often led by “young” older people who had the advantages of not having work and young children to be concerned about and also had valuable experience from their previous lives as tradespeople, professionals and managers. Neighbourhood Support groups often have current knowledge of the needs of vulnerable people and the skills and resources available in the immediate locality.

Canterbury has a well-established network of Neighbourhood Support groups, although without total coverage. The link with Crime Watch brought funding from the Ministry of Justice for two paid coordinators and further support has come through the Christchurch City Council and ACC’s injury prevention campaigns. After the earthquakes, Neighbourhood Support worked with Christchurch City Council community welfare teams. In terms of knowing the circumstances of older people, neighbourhood support groups, neighbours, relatives and friends are often better placed than Civil Defence, Police and the Fire Service, as their relationships are personal and on-going.

After the February earthquake, a thousand offers of accommodation came in from Neighbourhood Support Group members across the country⁴⁰. Neighbourhood Support Timaru opened up a welfare centre, working out of the police station, which dealt with around 9,000 “earthquake refugees”, mostly providing food and accommodation (groups in Ashburton, Rangiora and other centres also provided these services). Some people were billeted and some put in emergency accommodation. When people registered at the welfare centre, Neighbourhood Support workers arranged counselling on the spot to plan the next stage.

There was a lot of indecision and apprehension about what was going to happen. It was really useful having people in the same situation sitting and having a cup of tea together at the welfare centre while things were being sorted. All the agencies worked together well. Counsellors and WINZ were at the welfare centre all the time and that was brilliant. The assorted agencies had the powers and tools to do so much⁴¹.

Age Concern Canterbury Services – Age Concern Canterbury played a major part in drawing attention to the needs of older people through regular press releases and participation in recovery initiatives⁴². Age Concern received many referrals from Civil Defence, the Fire Service and Red Cross teams concerned about older people following the earthquakes. Age Concern community nurses, field workers and volunteers were able to respond with practical and social support. The home handyman brokerage service was well used to provide emergency repairs. The Accredited Visiting Service (AVS) provides regular face-to-face contacts for people who might otherwise be totally isolated, through a paid coordinator and around 120 volunteer visitors. After the earthquakes, keeping track of visitors and “visitees” became more difficult. Transport problems and migration meant that more time and work were needed to visit the same or a reduced number of clients⁴³. In mid 2011 Canterbury District Health Board (CDHB) provided funding for AVS services following increased referrals. The 2010-2011 Canterbury AVS report gives examples of how the service has helped:

M had to move out of his home due to earthquake damage and now lives across the town with his daughter and family, all of whom are absent during the day. He is very isolated away from

⁴⁰Neighbourhood Support Newsletter Vol. 6: 2 June 2011 pp18-21.

⁴¹ Neighbourhood Support co-ordinator, Timaru, personal communication.

⁴² Age Concern Canterbury Press Release (July 22, 2011). *Christchurch's quake highlights the importance of Age Concern's work.*

⁴³ Liz Reese, Accredited Visitor Service Coordinator, Age Concern Canterbury, personal communication.

his usual social networks. The AVS visitor has helped him link with social networks in the new suburb and he now feels much happier.

B was fine before the earthquakes, but now the bus doesn't come down his street and his clubs closed due to earthquake damage. He has nothing to keep him busy, but it helps to have a regular visitor.

The Nelson Mail cited an example of how a local AVS volunteer helped a displaced Cantabrian⁴⁴:

Mrs Herbert's daughter said while she was relieved to get her mother a (rest home) bed and the staff were great, her mother was still lonely. "She was uprooted from all her friends and contacts, so she has no-one else in Nelson visiting her apart from me." Jo Herbert contacted Age Concern, who set Mrs Herbert up with a Stoke resident, who has been visiting Mrs Herbert once a week. Jo Herbert said her mother's situation was typical of that faced by many elderly people displaced by the quakes. "It's so distressing for them. Yes, they're physically safe, but they've lost everything else - their home, their networks, their friends. People don't appreciate what these elderly people have gone through having to leave their homes, especially when some don't have any family here at all."

It was particularly traumatising for somebody with Alzheimer's, like her mother, but the visits were helping, she said. "From a family member's perspective, it was reassuring to have somebody else around, she said. Mrs Leov was a perfect match for her mother; both had been registered nurses, and were keen knitters and bakers."

Maori runanga – The local Ngai Tahu runanga has information on members likely to be in need of support, who might not be reached by “mainstream” services or might not be aware of what is available. Maori wardens and runanga staff door-knocked after the earthquakes and distributed food and water, with particular attention to people aged 65 plus. They co-ordinated offers of food and accommodation from local and more distant marae. Donations to the Putea Manaaki fund were distributed through a written application process in the form of bank deposits, food or petrol vouchers. Nga Hau e Wha marae in Pages Road became one of the relief and welfare centres.

Kai Tiaki, the nursing journal published a report of the help provided by Maori nurses who came to Christchurch from around the country in the days after the February earthquake⁴⁵.

Alzheimers Canterbury⁴⁶ - Older people living with dementia suffered disproportionately from earthquake stress and displacement, as shown in the Nelson example above. Their living arrangements, basic amenities, local environment and accessibility were compromised, compounding anxiety levels. Many had been living successfully in the community, but the earthquakes changed their routines. Family and carers moved – one family moved five times, including using motels – and both dementia sufferers and their carers lost confidence. Portaloos were clearly a challenge, as were communal showers.

Alzheimers Canterbury could not access their central premises until the army let them in, making it difficult to access contact information for their clients and carers,. Within two weeks of the February earthquake, an Immediate Response Volunteer Team (IRVT) was established to help address the needs of people with dementia and their families. Ten volunteers assessed needs and monitored progress with water, electricity and sewerage services, providing feedback to the Alzheimers

⁴⁴ Young, S. (July 27, 2011). *Volunteer visitor relieves quake victim's loneliness*. The Nelson Mail, p. 8

⁴⁵ Batt, J., Atherford, C., Grant, N. (October 2011). Te Arawa Responds. *Kai Tiaki : Nursing New Zealand*, 17(9), 38-39.

⁴⁶ Alzheimers New Zealand. Alzheimers Canterbury overwhelmed by volunteer support. <http://www.alzheimers.org.nz/alzheimers-canterbury-overwhelmed-by-volunteer-support/>, and Darral Campbell and Alzheimers Society social workers, personal communication.

Canterbury volunteer co-ordinator and social workers. This information assisted in developing an ongoing strategy to improve support and prioritise services.

The society pointed out that the extensive media coverage of residential care issues after the earthquakes overshadowed the situation of older people displaced in the community – “the least resource is applied where people are living the longest.”

Welfare and Support Centres - MSD, other local and central government agencies and NGOs worked together in the early post-February earthquake period, following the Civil Defence Emergency Management (CDEM) plan⁴⁷. Welfare and support centres were set up, in Christchurch city and surrounding local authorities, where people could go for help with their survival needs, to volunteer, or simply to be with others. There were reports of people seeking out the “sector posts” referred to in telephone directory information (often the local school), only to find them unmanned. Lack of volunteers was suggested as a reason for this. Instead people were asked to ring Civil Defence to find nearest post.

Despite many older people living alone, it seems that the majority preferred to stay in their own homes, and in any case sleeping arrangements in the welfare centres (mattresses on the floor) were not always appropriate for them.

Service Centres associated with public sector organisations were 'one stop shops' featuring services and information from a range of organisations (as with respect to home repairs). As well as public sector initiatives, voluntary agencies set up support centres, such as the Aranui Trust soup kitchen and the Pages Road marae, already mentioned. Examples of support centres outside Christchurch City included the MSD Heartland office at Hornby, one of few open for WINZ services after the earthquakes⁴⁸. In Akaroa the local hospital and GP base was deemed unsafe. A joint effort by CDHB, the PHO, local authority, MSD and the Presbyterian Church allowed a medical centre to operate out of Heartland premises. In a third example, a Recovery Assistance Centre (RAC), with representation from WINZ, Housing New Zealand, Inland Revenue and other welfare and recovery support services, operated out of the Kaiapoi Community Centre as a “one-stop shop”. The Waimakariri Earthquake Support Service (WESS) (Waimakariri District Council) had a specialist team to support older people. The WESS team compiled an “elderly care pack” – a box filled with items suitable for elderly couples or single elderly people, to be distributed according to need.

Associated with the welfare centres was a network of some 70 Earthquake Support Coordinators, funded and set up by MSD after the September earthquake. These coordinators, often with community work, social work or nursing experience, were from both public sector agencies and voluntary groups. Several were given special roles to work with older people. The experience gained from working together after September stood the network in good stead after the much more disruptive February event. Regular meetings convened by MSD (which are still continuing) helped with co-ordination, peer support and information sharing.

Housing

The first preference for most older Cantabrians in the immediate aftermath of the earthquakes was to remain in their own homes. Where this was not possible there were few housing alternatives. Rental accommodation was scarce and often unaffordable. Temporary housing took a while to emerge⁴⁹. Many moved in with relatives, locally or elsewhere. Early indications from research on temporary

⁴⁷ This plan has been reviewed and has produced valuable learnings as regards community welfare centres and sector posts.

⁴⁸ See newsletter: Heartland Services. (April 4, 2012,). *Signpost: News from the Heartlands*. Issue 4.

⁴⁹ The Canterbury Earthquake Temporary Accommodation Service (CETAS), a joint effort of the Ministry of Social Development (MSD) and the Department of Building and Housing (DBH) began operation just before the February 2011 event.

housing indicate that older people were mainly “billeted” with family and close friends, which provided them with emotional support and a more “social” atmosphere⁵⁰. Having others moving in with them was probably less beneficial for older people, and there are reports of stress arising from over-crowding, bringing the possibility of elder abuse.

According to the Opus research, older people appeared to be more concerned than younger people about the safety of their homes and the possibility of looting while they were away. For all groups there was a need for better communication about how long temporary “billets” would last and when people could return to their homes. This uncertainty added to stress levels. Older people were often distressed by not having access to their own possessions and space.

While many older people were resourceful and coped well with disruptions to housing in the immediate aftermath of the earthquakes, those with serious health issues did less well, especially when access to care, medication and health services were also dislocated.

Giovinazzi et al. (2012) report on temporary housing issues for the population in general⁵¹. Immediately after the major earthquake events shelters were provided in welfare centres, but these tended to be short-term measures. Most displaced people stayed either with friends and family or in motels and hotels. Private insurance was the primary funding mechanism for displaced individuals requiring temporary accommodation in rental properties while their homes were repaired.

Health Services

McColl and Burkle (2012) conclude that the direct consequences on health services were less than expected, given the severity of the Canterbury earthquakes. Christchurch Hospital is the main acute care facility for the region, with 650 inpatient beds and a full range of emergency, acute, elective and outpatient services. A detailed account is available of how Christchurch Hospital coped, despite loss of electrical power and water supply, and flooding⁵². Safety concerns led to the evacuation and relocation of patients, such as those requiring dialysis, to other hospitals. The Christchurch Hospital Emergency Plan, 2010, set out procedures and roles. Some of these had been worked out in anticipation of a bird flu epidemic, which threatened in 2009⁵³. As was the case for most service workers, hospital staff had their own concerns about families and homes. Offers of help from other DHBs were accepted to manage the additional demands on the service and allow staff time off to attend to their own needs. Ardagh et al. (2012) reported on the health system response in the first 24 hours after the February earthquake.

Hospital social work services provided social and emotional support, information and practical assistance to patients in the Emergency Department and established a Relatives’ Centre, while medical and nursing staff were focussed on providing clinical care to patients (Corin, 2011).

Princess Margaret Hospital, the base for specialist services for older people, suffered only minor structural damage (Goldstraw et al., 2012). There were some soft tissue injuries to in-patients and some acute cardiac events brought on by stress. The evacuation of residential care facilities led to

⁵⁰ Jared Thomas, Opus, research project “Temporary Shelter and Spontaneous Billeting”, personal communication.

⁵¹ Giovinazzi, S., Stevenson, J., Mitchell, J. and Mason, A. (2012) *Temporary Housing Issues following the 22nd Christchurch Earthquake, NZ* (sic), New Zealand Society for Earthquake Engineering Conference 2012. <http://www.nzsee.org.nz/db/2012/Paper125.pdf>

⁵² Unpublished report from the Chief Executive’s Office, Canterbury District Health Board (2011.) *Canterbury Earthquake Interviews: Initial observations for shorter term action*. This report is based on interviews with 150 stakeholders from across the health system. .

⁵³ Ministry of Social Development. (2009). *Being prepared for an influenza pandemic: Information for community organisations*. Prepared by Family and Community Services in consultation with NGOs and Ministry of Health. Wellington: Ministry of Social Development.

additional admissions at Princess Margaret Hospital. A small temporary respite care facility for older or disabled people was established by the CDHB at Princess Margaret Hospital after the September quake. The unit had 20 beds and was set up for stays of up to seven nights. Older people who needed special care or whose houses were uninhabitable could be referred to the facility through their general practitioners, if there was no alternative. This included people with chronic conditions needing specialised equipment (oxygen, dialysis).

The New Zealand Herald reported the experiences of an 87-year old man who found himself in the respite ward⁵⁴,

Mr Gibson's wife died eight years ago so he was home alone, like thousands of others, when the quake struck. He told the Herald he was woken by the "roar" of the quake and thought he was back in the war. "Everything just shook like mad and the bed lifted two feet off the ground." His home was intact apart from some 100-year-old ornaments that fell from a shelf and shattered, but he developed health problems and had to call an ambulance.

Charge nurse Liz Brenen said the respite ward set up as a fully functioning ward for patients in just eight hours. Some of the patients' homes had suffered quake damage while others were living with relatives who were dealing with devastation of their own, she said. "Older people have been traumatised by the earthquake, like us all, but for a lot of them the trauma has exacerbated their medical problems. Anxiety, confusion and lack of sleep have all been common complaints. A lot of them have settled down now [after the fright]".

Other examples were quoted in The Press⁵⁵:

Peter Chisnall, of Kaiapoi, moved into the ward after his home was left without sewerage and water after the quake. Chisnall, 76, lives alone and cannot walk without a frame, and could not get out of bed during the quake. He was unsure what condition his house was in and whether he could return when the respite ward closed.

Owen Moore, 90, said the quake was "a bit frightening". "I was a bit shaken up," he said. "I stayed in bed and waited for somebody to come." He lives alone in Dallington and felt lucky his home did not suffer major damage. "They say they'll keep me here for a few days yet," he said.

The Vulnerable Persons Group

The Canterbury District Health Board (CDHB) set up a "Vulnerable Persons Group" (VPG), which consisted mainly of CDHB employees in hospital services, including senior clinicians. A small team was established after the September earthquake and expanded to over 20 in February 2011. It ceased operating in December 2011 after the repatriation of all rest home and hospital evacuees. The original intention was to cover people with intellectual disabilities and mental health problems, as well as children and older people. It was found, however, that all these groups, except the latter, had established networks working with them. So the VPG was mainly concerned with rest homes and home support for older people.

After the February earthquake the VPG were involved in the following activities (Carswell, 2012, p.28):

- Contacting aged care facilities to check their status and prioritise those that needed evacuations
- Co-ordinating assessment teams for aged care residents
- Assisting in the co-ordination of evacuations and contacting of evacuees' relatives

⁵⁴ Koubaridis, A. (September 17, 2010). *Respite ward helps elderly to cope*. The New Zealand Herald, p. A.4

⁵⁵ Todd, R. (September 17, 2010). *Temporary ward to close next week*. *The Press*, p. A.9

- Working with CDHB Emergency Operations Centre logistics team, passing on requests for supplies from rest homes
- Assisting some facilities to find staff
- Managing requests for assistance to vulnerable older people in the community
- Managing press releases to inform the public.

After the February earthquake, the VPG immediately evacuated and the team could not access their office until the next day. They did not have back-up information off-site. This delayed their ability to contact aged care facilities, but they were able to access contact information from Eldernet. It was approximately five days until they contacted all facilities. Better recording of important numbers on staff mobile phones improved the situation so that after the 13th June earthquake it took only one day to contact all facilities. Other problems arose regarding data management, which are detailed by Carswell, along with recommendations for change.

After February 2011, the VPG developed an emergency response manual which includes a process for setting up an office and resourcing it properly. This includes dedicated phone lines; a full complement of staff; a template for evacuation records; District Nursing referral forms and a process for tracking evacuees.

Issues for residential care

The Christchurch earthquakes had a profound effect on the aged care sector and this has been documented by Carswell (2011, 2012), as well as by numerous media reports. As a result of the September quake, two rest homes were evacuated and one was closed (this was not included in Carswell's reports). Seven rest homes were evacuated as a result of the February quake, while two facilities were partially evacuated. Power loss lasted from a few hours to four weeks; some facilities were without mains water for between one and five weeks and without toilets for 3-6 weeks. Community and health service support was extensive. Volunteers took rest home residents home for showers or short stays. Local doctors and pharmacists helped. The CDHB supplied bottled water, hand sanitiser, port-a-loos, and additional staff to some facilities.

More than 640 aged care beds were lost; around 10% of the local residential care population were evacuated, 300 older people were relocated out of the city and 200 within Christchurch, including some taken by their families (Heppenstall et al. 2012).

Carswell (2011, 2012) interviewed residents and managers of rest homes and retirement villages. Residents said that their immediate concerns were for their own safety and the safety of their family and friends, not being able to contact people. The September earthquake happened when most residents were still in bed. They described being woken up and not knowing what was happening or what to do; for many it was very frightening. Some said they felt more prepared when the February earthquake hit. This depended on where they were and what they were doing. Some residents, who were up and about, were knocked to the ground by the force of the quake. Others, who were in shopping malls, talked about their difficulties trying to get out. One person, who uses a walking frame, waded through liquefaction back to the rest home, as no transportation was available. A common theme from rest home interviewees was that they held on tightly to something. This highlights the force of the earthquakes and how vulnerable they were to falls. Many talked about being gathered together by staff and in some cases sleeping in the lounge. Some were frustrated that they were not allowed back into their rooms sooner, or at all.

Interviewees from rest homes identified practical assistance and regular checks by staff as very helpful, especially after significant aftershocks. They also appreciated checks by their GPs and people from the community coming to help, such as the 'young lads who made cups of tea'. They considered it important to have a positive attitude and to care for each other whether other residents, relatives or staff.

Evacuations from rest homes

Decisions about evacuation were based on structural damage, the impact of liquefaction and flooding, and involved rest home and CDHB staff. Some facilities decided to evacuate immediately, while others did this over the ensuing days and weeks, first to undamaged Christchurch facilities. Transferring evacuees to facilities outside of Christchurch was initially managed by the Southern DHB and then this was taken over by the National Co-ordination Centre through liaison with the Ministry of Health Head Office⁵⁶ (Carswell, 2012, p.22). A transit ward was set up at Princess Margaret Hospital and some residents were shifted several times. The urgency for evacuation meant that some residents were moved without their possessions, personal information and medications. This was especially problematic for dementia patients.

The logistics for the evacuation were challenging and involved buses and air travel. The New Zealand Defence Force (NZDF) provided flights out of Christchurch, following an assessment of fitness to travel by a team including a CDHB specialist physician, a NZDF flight doctor and a CDHB assessor. Many of the bus evacuations took place at night, posing problems for the evacuees and also the receiving facilities. There were also concerns that using tourist coaches with high steps caused problems for people with limited mobility.

Information on destinations was centrally coordinated. DHBs vary in their requirements/assessments for residential care, but most observers felt that rest homes throughout the country responded well to the emergency. Bed availability was monitored through the Ministry of Health and corporates managed allocations within their groups. The Ministry of Health assisted in providing quick certification on a temporary basis where new beds were opened up. There were also issues with funding. The rest home subsidy is paid by MSD through DHBs and funding had to be adjusted.

Where possible, families were informed about evacuation by CDHB or facility staff. There were clearly challenges in doing this, arising from the urgency of the evacuation, lack of up-to-date contact details and difficulties with the phone network. It took some time to identify where residents could be evacuated to and there were issues over privacy. Normal practice does not allow leaving messages on answer phones, but this frustrated families who just wanted to know where their relative was, and the practice was changed. In some cases the "nominated contact person" did not share information and this upset other family members.

Difficulties with rest home evacuations were seized upon by the news media⁵⁷:

Christchurch man Russell Ritchie says a report on why his disabled wife and aged grandmother were flown out of the city after the big earthquake without the family's knowledge is "a joke". Mr Ritchie last week received a written apology from the CDHB. Both were evacuated to Merivale on the day, then relocated to Auckland care centres the next day. Six days later, Mrs Florence Ritchie, 104, died alone. An internal review found the decision to relocate displaced residents in care was made in the knowledge that in some cases, communication with next of kin would not be possible.

Communication failures..... "no doubt contributed to the family's distress". The first Mr Ritchie knew was in a call from a Kate Sheppard caregiver that his wife was in an RNZAF Hercules that was about to depart for Auckland. He raced to the Christchurch Airport to farewell his wife and found his grandmother on board as well. The military was chosen to transport those displaced because of the nature of the "urgent and major" evacuation and already taxed civilian transport agencies would be overwhelmed by the task, the report said.

⁵⁶ Anne Foley and Ann Marie Bailey, Ministry of Health, personal communication.

⁵⁷ Price, A. (May 19, 2011). Quake evacuations report 'a joke'. *The Press*.

Mr Ritchie had been told by the relocation team that his wife is due back in a week or two. "I'm pleased that finally someone has bothered to let us know what's going on," he said.

Most families recognised the need for urgent action, however, and appreciated the CDHB's assistance to visit their evacuated relatives⁵⁸:

Soon after the February 22 quake, Brian Frisken's wife, Marjorie, a resident of the badly damaged Churchill Courts rest home, was evacuated from Christchurch. Marjorie ended up in Dunedin at 11.30 that night. Frisken, who used to visit her every day, made the long drive south to see her, but it was almost too much for him. Thankfully, the CDHB later came to the rescue with a scheme for family members of the hundreds of elderly residents of damaged rest homes who have been shifted elsewhere in the country. Every Thursday he is flown to Dunedin to visit Marjorie, an arrangement for which he is enormously grateful.

Newspapers around the country chronicled the diaspora, with generally favourable comments^{59 60}:

A further 14 rest home patients arrived in Nelson yesterday morning on an air force Hercules, accompanied by Defence Force medical staff. The painstaking unloading and transfer process involved nine St John ambulances and 16 paramedics from the Nelson, Blenheim, Tapawera, Motueka and Richmond stations.

St John district operations manager Barry Howell said it was nice to be able to offer a respite for the patients, some of whom seemed a little scared by the deafening roar of the Hercules' engines. Later on, he said the patients had handled the move well. "Obviously it must be a traumatic experience for them, but they were well looked after by the military medics on the way, and they were in good spirits when they were in the vans on the way. The feedback from my staff is that they settled into the nursing homes OK."

The rest home evacuations highlighted the value of the InterRAI assessment tool⁶¹. This system was trialled in Canterbury for residential and home care, but does not yet cover everyone. Older people assessed by Needs Assessment and Coordination (NASC) processes as needing care have their data put onto the InterRAI database, which can be accessed throughout the country. Where this information was available, it proved invaluable for receiving rest homes (and was also used to identify vulnerable people in the immediate aftermath of the earthquakes)⁶².

A possible link between rest home evacuations and higher rates of mortality among residents attracted media attention⁶³. Heppenstall et al. (2012) analysed mortality data on a more systematic basis, comparing the groups of older people who a) remained in Christchurch; b) were evacuated; and c) were evacuated and repatriated. The report concluded that there had been no consistent increase in mortality for any group of the rest home population. Evacuees who had died were mainly people in hospital level care, therefore extremely frail. There were higher mortality rates among people evacuated within Christchurch. This was linked to patient selection – people who remained were too frail or unwell to travel. Evacuees deemed fit to fly were fitter.

Home support

⁵⁸ Macfie, R. (July 9, 2011.). The plight of Canterbury homeowners. *Listener*. 3713.

⁵⁹ Anonymous (March 12, 2011). *Hercules gives elderly refugees a lift*. The Nelson Mail, p. 7

⁶⁰ Kinita, D. (March 1, 2011.). *City finds space for the elderly*. The Daily Post, p. A.5

⁶¹ InterRAI is an integrated health assessment system. Information on its nature and use in New Zealand is available in conference presentations. <http://www.cdhb.govt.nz/conference/interai/presentations.htm>

⁶² This demonstration has increased confidence in the InterRAI system among health professionals and it is being progressively rolled out to all DHBs and residential care facilities.

⁶³ Glass, A. (August 3, 2011.). *Elderly evacuee deaths 'high'*. The Press, p. A.2.

Some of the earthquake impacts experienced in residential care were also felt by home support services for older people, such as the need for current information, data back-ups, information sharing and emergency response plans (often using measures set up for pandemic situations). Information was needed to identify priority clients. Community nursing support through the CDHB suffered from destroyed offices and electronic records. Coordination was assisted through the head offices of nationally organised providers, although a great deal of effective coordination occurred between independent services, assisted by regular meetings between providers, especially where their offices were damaged or inaccessible. The Nurse Maude services took the lead in coordination. The establishment, by Nurse Maude, of a 'hospital in the home' model of care was developed with the support of Help4U who were able to provide data about the extensive damage and human health needs caused by the Christchurch quakes using the Omaha System⁶⁴ (Poulsen et al., 2011). Co-ordination with primary care was more appropriate for home care services than with CDHB emergency operations.

In the immediate aftermath of the earthquakes the home care workload decreased as older people left the area or care workers could not reach them. In addition to damage to roads (which had a serious impact on the workers' cars), there were problems of access into Red Zone areas, which were cordoned off by the military, and to petrol supplies. Many home care workers went to great lengths to reach their clients, to take them necessary supplies and to help with water, food, toileting and hygiene. They were able to give support to clients who were stressed, tired and frustrated about disrupted routines. In serious cases, home care workers referred clients to Red Cross and other services and facilitated transfers to residential care. This heightened activity occurred despite anomalies in home care funding, where workers are only paid for visits completed and where transport subsidies are inadequate. Many spent a great deal of time trying to reach clients only to find that they had left their homes.

Meals on Wheels were cancelled for four days after the Feb 22nd earthquake due to difficulties in delivering meals by volunteer drivers⁶⁵. Many roads were closed, damaged or inaccessible due to cordons. Both drivers and meal recipients fled Christchurch. Time was needed to contact drivers and recipients to make sure they were safe, well and still requiring meals. Lyttleton was completely cut off because the tunnel was closed. A Navy frigate prepared and delivered hot meals twice a day to the most vulnerable and isolated people in that community. The service was so popular after the frigate left that the community continued the meals for some weeks. New Brighton residents had meals flown in by helicopter provided by the "Rangiora Express", a group of volunteers who baked pies, cakes and muffins daily.

The safety of volunteer drivers was paramount in the decision to restart meal deliveries. An attempt was made to start partial deliveries to areas with no bridge or road closures, but this situation was changing by the hour. Volunteers and Meals on Wheels staff spent 60 hours making over 1000 phone calls to recipients and their next of kin before meals restarted. About 80% were contacted; others may have left Christchurch or were staying with family. On the first day of delivery post-earthquake only 25% of the normal number of meals were delivered. Recipients were extremely grateful as many were starting to feel socially isolated. The Meals on Wheels database was shared and cross referenced with Ministry of Social Development information, arising from their phoning and door-knocking.

The Meals on Wheels coordinator reports that, several months after the February earthquake some "rounds" remained very quiet, but due to the state of roads a small number of meals could take a long time to deliver. With many supermarkets, malls and dairies being closed, the service remains important for those who cannot shop or prepare their own meals. Referrals are increasing slowly.

⁶⁴ The Omaha system was developed by visiting nurses in the state of Omaha, USA, to record data in a simple and accurate way. Its use in Christchurch allows clinicians and non-clinicians to classify needs and document their responses, ensuring effective referrals and interventions.

⁶⁵ Nicky Moore, Food Services Contract Manager, Canterbury District Health Board, personal communication.

Psycho-social support

As mentioned in the introduction, the psycho-social consequences of earthquakes and other natural disasters are recognised by researchers. A paper by the Prime Minister's Science Advisor in May 2011 outlined the classical phases of psycho-social recovery, but noted that the process in Canterbury had been disrupted by the numerous aftershocks⁶⁶. Although most people will recover from disaster trauma in time, with only about one in twenty suffering ongoing psychological morbidity, the needs of both groups must be recognised. Gluckman suggests that lack of attention to majority needs (basic listening, information and community-led interventions) will increase the size of the minority which requires specialised care. Normalisation of everyday life is important, accompanied by a sense of control and empowerment. "Open and honest information dissemination is key; mythology and rumours are the enemies of resilience⁶⁷." These points resonate clearly with the situation of older people in Canterbury.

According to Chambers and Henderson's overview (2011), mental health input was an integral part of the CDHB's disaster response. Here again, the September earthquake provided a "dress rehearsal" for the more severe February event. That experience led to improved communication between agencies and more collaborative and flexible ways of working (typified as a shakeup or liquefaction of the boundaries and silos that people have traditionally worked in). The CDHB's Specialist Mental Health Service provided public health messages, educating the public and news media on common psychological and behavioural responses, distributing pamphlets on these topics to households. Specialised psychiatric services for older people, with links to primary health and community agencies, included an anxiety service, with initial funding for one year.

At the sub-clinical level, several agencies offered counselling support for people affected by the earthquakes, including Healthline, staffed by registered nurses; Quake Support and Counselling, managed by Environment Canterbury and the Christchurch City Council; and Te Runanga O Ngai Tahu. The Relationships Aotearoa services were free, funded by the government⁶⁸. Telephone counselling was available anywhere in the country, with a face-to-face service in Christchurch. The theme was "dealing with the emotional aftershocks". "It might be ways to calm down when worried or frightened, or taking time out to avoid flying off the handle."

Notwithstanding the value of specialised services, most effective psycho-social support after a disaster comes from neighbours and communities, and this may be more helpful than contact with professionals in the early stages (Gawith, 2011). This was certainly true for older people. Interviews and diary records in Annear's work (see page 20) illustrate mixed responses by older people, but a great deal of resilience and mutual help. Whether people were vulnerable or resilient is likely to be linked to personality traits. Some coped well, using the September experience to prepare in the expectation of another earthquake. Older people in the less affected areas were widely involved in planning and remediation. Helping and caring for other people also assisted their own recovery.

On the less positive side, over a third of Annear's respondents reported mental health and psychological impacts related to the earthquakes. These included anxiety, insomnia, lethargy, confusion, poor eating, grief and depression. He suggests that his respondents may be more resilient than the general older population, with the real incidence of such problems being higher. Gawith (2011, p.125) reported a rise in falls and increased levels of dementia or disorientation among older people. Earthquake stresses added to other life stresses for some, linked to changes in levels of activity, interrupted access to community venues, transport difficulties, changes in bus routes and general uncertainty about the future. As already mentioned, it was important for older people to talk,

⁶⁶ Gluckman, P. (May 10, 2011). *The psychosocial consequences of the Canterbury earthquakes: A briefing paper*. Wellington: The Office of the Prime Minister's Science Advisory Committee.

⁶⁷ *ibid.*, p.6

⁶⁸ Relationships Aotearoa. Free counselling support is available following the earthquakes. http://www.relationshipsaotearoa.org.nz/our_services/counselling_support_-_christchurch_earthquakes

to interact with neighbours and to resume normal routines as quickly as possible. Finsterwalder (2010) came to the same conclusion with respect to people in general.

Matthew Croucher⁶⁹, a psychiatrist and member of the CDHB Vulnerable Persons Group, describes the stages of health and psychological impacts after the February earthquake for older people. Older people in aged care, generally speaking, had their needs met. Frail older people living at home, especially those suffering from dementia relied on regular and consistent services in both the formal and informal care sectors. Some took to their beds and needed multiple door knocking before any contact was made. Many were taken in by their families. Where there were special needs or the individuals and their immediate carers could not cope, people generally came to the notice of health teams or were taken to emergency and welfare centres. The Vulnerable Persons Group assisted to ensure that these centres offered a GP clinic with mental health and older people's services.

Within a few weeks it became apparent that many families were not coping with caring for dependent older people, especially where formal services had not returned to normal and "usual" nurses and caregivers were not available. Respite services in rest homes or hospital were very scarce, but the VPG managed beds and services.

Consistent with the literature, problems such as depression and anxiety began to appear about six months after the February earthquake. Older people were experiencing anxiety stirred up by ongoing quakes as well as coping with stresses arising from disability, cognitive impairment, social isolation and financial problems. However, Croucher found little actual post-traumatic stress disorder (PTSD). A "super-coping" group of older people could also be identified, who often took the lead in community groups working for recovery. Coping with stress could clearly be related to the amount of control which people had over their circumstances (a finding echoed in other assessments).

Issues for Residents of Retirement Villages

The earthquakes in Canterbury damaged 80% of local retirement villages and three were destroyed. Many residents moved to temporary accommodation in other villages (often part of the same group), motels or stayed with friends and families while damage was assessed and villages repaired. Retirement village residents do not hold individual insurance policies on their units and EQC payments go initially to the statutory supervisors of the village, who allocate the funds to residents and operators/owners. Residents have occupation rights agreements (ORA) or "licenses to occupy". Problems have arisen over what provisions apply through these agreements in the event of total destruction of the village.

Carswell interviewed retirement village residents and recorded their view on what was helpful and what needed improvement in the initial earthquake aftermath (Carswell, 2012). Generally, they considered that they had coped well and attributed this to their relationships with and looking after one another. They appreciated the practical assistance and regular checks by staff, especially after significant aftershocks. They complimented staff for the assistance they provided when they had to cope with their own problems.

Communication about what was happening was very important to retirement village residents, who suggested that the management should have clear plans and regular updates. They also wanted much better communication and recognition by authorities. Some felt that outside agencies regarded them as part of a facility rather than living independently. In one case they were given only one port-a-loo between all of them and, when the rest of the houses in the street got chemical toilets, they did not. Some reported that, although they pay their own power bills they had not had the electricity deductions that other householders had been given.

⁶⁹ Matthew Croucher, psychiatrist consultant and senior lecturer in old age mental health, personal communication.

Several of Carswell's interviewees had been evacuated from retirement villages and felt that this had impacted on them emotionally as well as financially. Losing their home meant losing their community and the social life that they had enjoyed so much. They also felt financially disadvantaged when they received their original purchase price less fees which did not leave them with enough money to purchase a unit in another village.

The 2006 Retirement Villages Code of Practice included a clause which suggested that village residents were to be paid out in full should a village be destroyed. This version of the code was overturned on legal grounds and the clause was not carried forward. The 2008 code did not address how much residents should be paid if they cannot be re-housed within their village. Different retirement villages or groups of retirement villages apply different policies. Clause 21.6 of the 2008 Code allows operators to put into the ORA whatever they want when residents vacate their units, or if rebuilding is required. Many base the repayment on the initial purchase price minus a "Deferred Management Fee". Some mention proceeds from insurance, if this sum is greater. So regardless of what is paid to the owners, it is up to the operator's goodwill to pay residents above the minimum.

The issues came to the fore in the case of Kate Sheppard Gardens (417 New Brighton Road), which was closed after the February earthquake and declared a "total constructive loss" on June 9 2011⁷⁰. Many of the 150 residents were rehoused in other retirement villages. The Kate Sheppard Gardens ORA, which was fully compliant with the Retirement Villages Act and the Code of Practice, stated that the owner could terminate the agreement as a result of total destruction and need only pay back the initial purchase price. The result was that residents were left with refunds insufficient to buy another home⁷¹. Many people, who had been retired for 10 to 20 years, may well have outlived their savings, making re-housing very difficult.

The Retirement Villages Association (RVA) issued a media statement (12 May, 2011) announcing assistance packages for residents (and others wishing to enter retirement villages post-earthquakes), including discounts on units, interest-free loans, and fee waivers. John Collyns, Executive Director of the RVA, said that the code-compliant contracts operating in normal circumstances do not give residents peace of mind if their village is destroyed and not rebuilt, and that cash pay-outs were being delayed by complex insurance processes.

Age Concern and Grey Power spoke up for the affected retirement village residents, calling for the code of practice to be strengthened to provide better protection for residents in the event of a village being destroyed and not rebuilt. Specifically this meant reinstatement of the 2006 wording – repayment of the original purchase price in full.

The RVA agreed that aspects of the Code of Practice should be reviewed to clarify residents' rights, with better protection if villages are destroyed. It took the initiative by issuing a discussion document setting out the industry's views on reviewing the Retirement Villages Code of Practice (RVA, 5 July, 2011) and calling for feedback from stakeholders. The issues the RVA identify included:

- Payments to residents if villages are destroyed and not rebuilt, supporting refund of the original payment without deductions
- Insurance cover and valuations, including disclosure
- The provision of temporary accommodation
- Continued payment of village outgoings, suggesting that weekly fees should cease from the date of the insured event
- Rebuilding the village in another location.

⁷⁰ Anonymous. (June/July, 2011). *'Wriggle room' sought for Kate Sheppard residents*, INsite.

⁷¹ Many older people's affairs were complicated by having their contracts and other legal documents held in solicitors offices made inaccessible in the CBD Red Zone.

Some retirement village operators moved quickly to reassure their residents throughout the country. Summerset sent out a letter on 13 May detailing a commitment that residents will never be left without a home in the event of a disaster⁷². If rebuilding on the same site or in reasonable proximity is not possible, residents will transfer permanently to other retirement villages or will be paid out market value (at the time of the disaster) with no fee deductions, once insurance is received. Other groups have moved or are likely to move towards a similar position.

A formal discussion document on proposed variations to the Retirement Villages Code of Practice 2008 was prepared by the Department of Building and Housing and the Retirement Commissioner, appearing in October 2011. In their submissions on this paper, Age Concern and Grey Power emphasised that the clauses regarding total destruction of retirement villages urgently needed strengthening to protect residents. The aim was to ensure that ORAs provide sufficient funds to purchase equivalent housing, i.e. full replacement. They also called for greater consultation between owners and residents and joint decisions on whether units would be repaired or replaced; more thought to be given to insurance arrangements; and for operators to re-house residents while major repairs are done (or to hold temporary accommodation insurance).

The RVA went along with these proposals and made their own submissions, regarding insurance matters but opposing any amendments to the code of practice which would weaken its flexibility and remove operators' discretion over rebuilding⁷³. The RVA are probably right in their assertion that the majority of older people in retirement villages had access to help and support and had their homes fixed more quickly after the earthquakes than people in the community around them.

In October 2012, Building and Construction Minister Maurice Williamson said that from October 2013, retirement village owners will not be able make deductions when they paid out residents after a natural disaster⁷⁴. Some have already moved to do this and can introduce the change earlier if they wish. In Christchurch, negotiations with insurance companies are not finally resolved. There is an on-going dispute over whether retirement village residents in the red zone qualify for government payouts⁷⁵.

Access to financial and legal help⁷⁶

In the immediate aftermath of the earthquakes, states of civil emergency were declared. This allowed rapid decisions to be made for emergency funding to cover temporary support payments through Civil Defence and other agencies. There were a wide range of sources for immediate financial relief, in addition to government provision, including the Salvation Army Canterbury Earthquake Appeal, Ngai Tahu Hardship Grants, the (Christchurch) Mayor's Welfare Earthquake Relief Fund, the Waimakariri and the Selwyn Earthquake Relief Funds. Corporate New Zealand responded with money, goods, services and volunteers, directly or through relief agencies. No information is available on the extent to which older people were helped through these channels.

The Red Cross Winter Assistance Grant has already been mentioned. The Red Cross also managed other government subsidies and made grants from donations. One scheme was a storage grant of up to \$500 per household, "To assist homeowners who have had to vacate their damaged property and have exhausted other financial assistance to pay for storage"⁷⁷. WINZ provided help with housing costs, through the Accommodation Supplement and also Temporary Additional Support for 13 weeks, to

⁷² Summerset. (June, 2011). *Summerset Life Newsletter*.

⁷³ Retirement Villages Association (November, 2011) Submission to Department of Building and Housing and the Retirement Commission on the review of the Retirement Villages Code of Practice.

⁷⁴ Liz McDonald (11 October, 2012) *New rules give elderly better deal*. The Press. <http://www.stuff.co.nz/the-press/business/7802514/New-rules-give-elderly-better-deal>

⁷⁵ Anonymous. (November 18, 2011). *Rest-home owner plans court for CERA*. The Star.

⁷⁶ CanCERN. (February 17, 2012). *CanCERN Newsletter*, No.26.

⁷⁷ Other schemes included grants for financial advice and to fund local community events.

cover regular and essential living costs which could not be met from other income or resources. Some payments were in the form of recoverable loans, for appliances, furniture, bedding, rents and bonds.

Free legal consultations were provided by some lawyers for people of all ages and Community Law volunteers staffed welfare centres straight away. The requirements were mainly for making claims and “translating” letters from insurance companies, the EQC and CERA. Age Concern Canterbury assisted in giving older people access to these services. At a later stage CanCERN⁷⁸ worked with lawyers to develop information packs on the insurance/decision-making process for Red Zone residents. The assistance centres and information “hubs” were valuable sources of assistance, allowing face-to-face consultations with insurance and bank representatives, lawyers and other advisors. CanCERN Newsletter 12 reported, “Many who have done this have walked away with a greater sense of being heard and understood and more able to see what the options really are.” This was seen as supplementing what could be learned from web sites.

Older people, especially those with health problems and those not familiar with online sources of advice, often needed someone to accompany them to consultations with lawyers, insurance companies and government agencies. Age Concern staff and volunteers and the Earthquake Coordinators were valuable sources of support.

⁷⁸ CanCERN is a network of Residents Association and community group representatives from the earthquake-affected neighbourhoods of Canterbury. It was started in October 2010 by residents in Avonside and local Labour MPs. Brian Barker, CanCERN, personal communication.

Part 2: Long-term issues

Moving into the recovery period

Although there were further significant earthquake events after 22 February 2011, none caused as many deaths or as much large-scale property damage⁷⁹. After the first few months of survival activities, Canterbury moved into a recovery period, which continues until the present and which is the subject of this part of the report. Thus there are overlaps between the issues covered in Part 1 and Part 2.

The recovery stage described in the literature on disasters, which may take months or years, merges into a period of rehabilitation and restoration. Bidwell points out that recovery may be of shorter or longer duration for particular groups of people⁸⁰. In his briefing paper on the psychosocial consequences of the Canterbury earthquakes, Peter Gluckman quotes an alternative categorisation of phases⁸¹. Writing in May 2011, he suggested that Christchurch was in a ‘disillusionment phase’ in which people realised how long recovery would take and were becoming angry and frustrated about difficulties and delays. An illustration of this is an article in the New Zealand Herald, as early as June 2011, under a headline; *Christchurch needs decisions: If the authorities don’t get their act together soon, earthquake anger could bubble over*. A Listener article suggested; “It is the not knowing that is weakening people’s resilience more quickly than the aftershocks that keep on coming”⁸².

Over a year later, Mary Richardson, Christchurch Methodist Mission executive director, claiming housing as a basic human right, emphasised the disillusion and frustration of Cantabrians⁸³.

We have an unprecedented opportunity to create a great city but it must be a plan for city and suburbs. It must put people at the centre of the recovery. Currently only one of the 10 design principles mentions anything about people. Reconstruction has to be for the entire community, rich and poor.

Older people clearly share such feelings, knowing they may not live to see the rebuilding of their city. In April 2012, an “Older Generation Forum” was convened. Explaining the need for this, well over a year after the major earthquake, John Patterson said:

We are told we have to be patient and we will all get through this in time. Unfortunately, time is the one thing that is not on our side and I don’t think the younger generations understand this.

Several other commentators emphasised this point. In his introduction at the forum, John ably summed up local feelings:

⁷⁹ There was substantial damage in June 2011 and a significant number of EQC claims arising from it. A rest home resident died as a result of this event.
<http://www.telegraph.co.uk/news/worldnews/australiaandthepacific/newzealand/8574001/One-man-confirmed-dead-after-Christchurch-earthquakes.html>

⁸⁰ Bidwell, S. (April, 2011). *Long term planning for recovery after disasters: Ensuring health in all policies (HiAP)*. Community and Public Health (CPH) for Healthy Christchurch. Version 1, 11, Information Sheet Summary.

⁸¹ Gluckman, P. (May 10, 2011). *The psychosocial consequences of the Canterbury earthquakes: A briefing paper*. Wellington: The Office of the Prime Minister’s Science Advisory Committee.

⁸² Bowker, G. (June 20, 2011). *Christchurch needs decisions*. Listener. 3711. Similar media reports, including rumours about the expertise and ethics of EQC evaluators, have bred distrust.

⁸³ Mary Richardson (September, 2012) *We can create a better city*. Touchstone.
<http://www.methodist.org.nz/files/docs/mcnz%20admin%20office/touchstone/2012/touchstone%20september%202012%20web2.pdf>

When you listen to the news or read the newspapers you get the impression that everyone is fighting each other. EQC's interpretation on an (insurance) policy is different from the insurance company's. The insurance companies themselves don't seem to agree with each other either. Politicians are always fighting each other and I don't know where the council's authority stops and CERA's begin. And we have frustrated people setting up protest groups all over the place. Why can't we all get together and work together for the common good?

Despite bad weather, over 400 people turned up to the April forum. Roger Sutton, head of CERA, came under fire, as the face of officialdom⁸⁴. There has clearly been a loss of trust and a lot of work is needed to regain it. The forum called for an Information Expo to make sure that people know what is going on and for another forum with the insurance people and EQC⁸⁵.

Further Older Generation Forums were held in August and September 2012. In September it was the turn of the Chief Executive of EQC and some of his colleagues. In August representatives from a range of insurance companies and the Insurance Council met with older people. The meeting called for priority to be given to vulnerable people in settling insurance claims; for efforts to be made to resolve difficulties and duplication between the responses of the EQC and insurance companies; that the preservation and protection of community be the basis of the response of the insurance industry; and awareness of the importance of community continuity be in place at all times. Older people at the meeting indicated that while email and information technology-based approaches may be the most preferred way for insurers, it was not the easiest for them and they preferred insurers to have face to face meetings.

Mounting anger and frustration is also being seen in the political sphere. Earthquake Minister Gerry Brownlee's assertions that nothing needs to be done about the serious housing shortage in Christchurch and "exploding" rents led to calls for his resignation by the New Zealand First party⁸⁶. In its press release, New Zealand First called for rent regulation, for concessionary bridging finance for people who cannot finance new homes after accepting the Red Zone offer.

As pointed out by the Salvation Army⁸⁷, long-term financial pressures and the ongoing disillusionment and uncertainty associated with multiple insurance claims, rezoning, property repairs and trying to make major life decisions, are compounded by the trauma and stress sparked by every aftershock. Many people forced out of their homes by earthquake damage have found that the 12-month insurance cover for rental accommodation is beginning to expire; leaving them to pay continued outgoings on houses they can't live in, as well as rent. Older people often moved back into their damaged homes because they cannot afford to pay overheads on two dwellings and many have been overwhelmed by complex and frustrating negotiations with insurance companies, EQC and other bureaucracies. For some, "the reaction is to go inside, close the door and avoid dealing with the problems—this is not uncommon." Bruce Coffey of the Salvation Army, one year on from the February earthquake expressed his concern that vulnerable older people are becoming more isolated and ultimately could be homeless because "they've been unable to make the decisions they need to make."

Psycho-social impacts on older people

Older people share the feelings of anxiety, exhaustion and frustration being felt by many Cantabrians. As Michael Annear points out,

⁸⁴ Carville, O. (May 2, 2012) *Soldiering on 'in the dark' holds no appeal*. The Press, p. A.3

⁸⁵ The Age Concern Positive Ageing Expo was on October 1, at Papanui High School.

⁸⁶ New Zealand First Party Press Release (2010). *Earthquake Minister Must Resign*.

⁸⁷ Salvation Army (February 28, 2011) *Committed to Christchurch*. <http://www.salvationarmy.org.nz/research-media/media-centre/local-news/committed-to-christchurch/>

As Christchurch enters a time of significant rebuilding and recovery, care will need to be taken to address the complex health and social needs of older adults who are isolated, in poor health or predisposed to mental health perturbations.

The literature on disasters portrays two pictures of older people (as outlined in the introduction). On the one hand they are seen as a vulnerable group requiring special support and more likely to suffer in the immediate and aftermath stages. On the other, older people are praised for their resilience and stoicism. Both sides are illustrated in media coverage of the Canterbury situation.

In the week of April 23, 2011, The Christchurch Press ran a series of articles on older people. Some of the headlines make grim reading “*Some old folk isolated*”, “*Death rate spikes after quake*”, and “*Choice gone for Christchurch old folk*”. Another heading uses the term “earthquake victims” above an article which includes several older people amongst those described as “doing it tough”. Elsewhere, there is a piece talking about “rest home refugees”. This language stresses vulnerability, limited autonomy, and a loss of security, which affects older people in particular⁸⁸.

Beyond Christchurch, the Sunday Star Times gave front page billing, on April 24, to a photograph of a 78 year old man, with a bandaged head, and claimed that his image became the enduring media image of the earthquake. Well down in the text, the “backstory” becomes clearer. This man was “miffed” to find his photograph used in this way. He was a regular volunteer showing tourists around Christchurch Cathedral. Under other circumstances, he might equally have become a “cover boy” for Active Ageing.

In the Christchurch Press series, there were also more positive stories, such as the one under the headline “*Warmth of a hug and food ease fears*”. This describes a church hall being used as a drop-in centre for older people to come together for shared food and conversation. Many of their neighbours had moved out, either short or long term, leaving older people more likely to be “home alone” in their street.

Many months after the major earthquakes, volunteers found older people in their homes, who had not asked for help, who did not know what help was available, not wanting to go out, because that was where they felt safe, but who were not complaining⁸⁹. From an outside point of view they were in need of assistance, but the older people themselves did not always share this view. They would be saying “I’m fine - others are worse off than me.” Sometimes it was taking up to three calls to find out what was actually needed; to identify their problems or options for moving^{90 91}. Many had suffered from social isolation even before the earthquakes occurred, and had dealt with challenges throughout their long lives. Wartime experiences were frequently mentioned.

As time went on resilience began to wane. Support from neighbours, which was good initially, tailed off as they moved away or became exhausted themselves. Older people are being left in neighbourhoods which are part deserted, surrounded by untended gardens, broken houses, uneven streets and footpaths. Graffiti and squatters add to the run-down atmosphere. A Salvation Army social worker reported⁹²:

For one client, a favourite pastime was to walk along the river near his house. Now, with the damage to pathways and the river itself, this is no longer possible. It is no longer safe to walk

⁸⁸ Keeling, S. (June 2011) *How are older people in Christchurch doing?* New Zealand Association of Gerontology, Christchurch Branch. <http://gerontology.org.nz/how-are-older-people-in-christchurch-doing>

⁸⁹ Anonymous (January 19, 2012). Extra support for quake-affected elderly. *ONE News*. http://www.wellbeingnc.org.nz/about_us

⁹⁰ Denise Langrish, Neighbourhood Support co-ordinator, Timaru, personal communication.

⁹¹ Tracy Pirie, Strengthening Communities Coordinator, personal communication, Observations on older people in Kaiapoi, personal communication.

⁹² Sue Waight, Earthquake Support Team, The Salvation Army, personal email communication.

in their once familiar and safe environment.

Another community worker feared that the reluctance of older adults to ask for help could result in decreased resources being allocated to the sector.

Older people who moved to live with family could still be isolated, as relatives were likely to be out all day, and they are away from their usual social networks, in unfamiliar neighbourhoods. Michael Annear's thesis examines environmental influences on active ageing⁹³. He concludes that the over-65s have proved to be a resilient and energetic resource for recovery. Diaries completed by his respondents, all older people living independently in the community, indicated a high level of post-quake activity and significant resilience in the face of adversity. Like other groups, many suffered psychological trauma, including depression and anxiety, which was understandable. What was unexpected, however, was the degree to which many of them leaped into action when the shaking stopped.

As a society, we are quick to forget that older adults have a lifetime of experiences, including exposure to previous disasters, which often help them cope much better than younger adults in a disaster.

This research⁹⁴ gave many examples of this resilience, which includes providing material support to family, friends and community members (for example, having family members living with them); assisting in disaster recovery activities (being involved in community information centres, arranging forums for information and advice); engaging with social networks to give emotional and psychological support; and using the earthquakes as a source of spiritual growth or personal learning. Annear concludes that these findings challenge social stereotypes about older people and their vulnerability; that older people are a valuable resource for community recovery and family support and that the diversity and effectiveness of coping styles evident offer valuable lessons for younger community members. Older people are the "unsung heroes in the aftermath of the earthquakes". Those who cope best are those with their own resources, social support, good information, purpose, identity and values. Added to this should be good health and mobility.

Older people are as diverse in their earthquake response as any age group, reminding everyone to look beyond the headlines and stereotypes.

Impacts on older people's activities

The loss of community facilities due to earthquake damage and closures when buildings were deemed unsafe (rulings which were continuing to be made over a year after the February earthquake) has had a critical effect on the social interactions of older people, often contributing to serious social isolation. Many churches were destroyed, as well as church halls. Halls which survived were often taken over by businesses. Some suburban libraries housed (fully or partially) Christchurch City Council staff and others were closed on the grounds of safety. As well as losing facilities for group activities and educational opportunities, there was disruption to volunteers' training because venues were not available. Age Concern Canterbury had to vacate its building, which was eventually slated for demolition. The organisation operated out of the homes of its staff for well over a year. Along with other voluntary organisations, Age Concern faced competition from commercial businesses for alternative premises.

Local government and voluntary organisations in Canterbury are well aware of the risk of social isolation for older people and the need to keep them connected with their communities – whether they have stayed put or relocated⁹⁵. There is concern about the reduced number of older people attending groups and activities – because they have moved away or are fearful of leaving home. With financial

⁹³ Anonymous. (September 1, 2011). Value of "Oldie Army" in post quake recovery – research. *Voxy*.

⁹⁴ Annear, M. (May, 2012). Disaster experience research of elderly. *Keeping On*, p.17.

⁹⁵ Wylie, S. (2012). *Social Isolation and Older People in Canterbury*. Prepared for Age Concern Canterbury.

assistance from the Christchurch City Council, Age Concern Canterbury has appointed a Social Network Coordinator and an additional coordinator for the Accredited Visitors Service.

Tracy Pirie, Strengthening Communities Coordinator, Kaiapoi Baptist Church, summed up the reasons why many older people were feeling alone and confused⁹⁶:

Many of the older residents of Kaiapoi have/had lived there for many years.....the sudden disappearance or change in location of a supermarket and other shops, cafés, doctors surgery even a church (everything they had always known) had a profound impact. The changes within the community were fast, sudden and unexpected. These changes, although unavoidable, added to the feeling of loss and grief. This loss was also a loss of social interaction and conversation. This in turn led to an increased feeling of social isolation.

Elder abuse

Age Concern Canterbury report an increase in elder abuse and neglect cases since the earthquakes⁹⁷. They suggest that the actual instances of abuse may not have grown, but may be more exposed due to current living conditions⁹⁸. On the other hand, sometimes older people collude with their abusers and do not give permission for intervention. Some cases have arisen when family members are looking after elderly relatives and their care has become too much of a burden.

Financial abuse is a risk as older people receive substantial pay-outs from the EQC and insurance companies, which often arrived quite quickly in the early post-quake period. These may offer temptation to family members experiencing their own financial pressures, fitting with the general conclusion that much elder abuse is opportunistic⁹⁹. Age Concern community health nurses report stories of elderly people being forced into a bank to get money that will be taken from them by a younger relative waiting outside. There have also been cases where a family member has "intimidated or stressed" an older person into letting them take over their claim with the EQC¹⁰⁰.

One woman left her earthquake-damaged home to stay with a couple from her church. When her daughter visited, she physically and verbally abused her. The couple reported it. Another elderly couple, who had moved into respite care, were financially abused by their daughter who wanted to get her parents back home where she could control them and their money¹⁰¹.

In the rebuilding phase, older people may become the victims of fraud relating to recovery work, such as bogus trades people/assessors, inflated and/or incomplete repair work and scams. Some have been taken advantage of when they "opened their doors to anyone." Elderly people with disabilities and chronic illness were particularly vulnerable as they were often socially isolated and relied on others. "Sadly, people may take advantage or over-step the rights and decisions of older people."

Data submitted to the national Age Concern database, relating to their Elder Abuse and Neglect Prevention Services, do not reflect the reported rise in incidence. This arises from difficulties of

⁹⁶ Tracy Pirie, Strengthening Communities Coordinator, The Person to Person Help Trust/Kaiapoi Baptist Church, personal communication.

⁹⁷ Todd, R. (April 23, 2011). More reports of abuse as elderly shift to new accommodation: Our Elderly. *The Press*, p. A.9.

⁹⁸ Jane Morgan, Community Wellbeing Outcomes Programme Manager, Canterbury Earthquake Recovery Authority personal communication.

⁹⁹ Davey, J. and McKendry, J. (2011) *Financial Abuse of Older People in New Zealand*. Institute of Policy Studies Working Paper 11/10. <http://igps.victoria.ac.nz/publications/publications/list/7>

¹⁰⁰ Nicole Mathewson (October 29, 2012) More cases of elder abuse reported after quakes. *The Press* <http://www.stuff.co.nz/the-press/news/christchurch-earthquake-2011/7874522/More-cases-of-elder-abuse-reported-after-quakes>. Increases in elder abuse have also been reported by the police and health authorities.

¹⁰¹ Cases reported in Canterbury Age Concern's narrative report to Age Concern New Zealand, 2012.

definition, privacy and confidentiality concerns and the fact that many cases “belong” to other agencies.

Transport

Accessible and affordable transport is a key element in keeping older people involved and active in their communities, with consequential benefits for their physical and mental health and wellbeing. Older people are heavily dependent on private transport, but the earthquakes resulted in many of them losing their confidence to drive, and relocation has deprived many of their usual sources of lifts to shops, medical services, clubs and social occasions¹⁰². John Patterson illustrated some of the access difficulties for older people in the recovery phase¹⁰³:

The roads and the footpaths around where we live are still in a terrible condition. It's like driving or walking through an army assault course. Most of the damaged water and sewerage pipes are under the roads so they are having to dig up the already damaged roads to fix the pipes. It's going to take a long time but workers are doing a fantastic job.

A range of measures have been taken to help older people to ‘get out and about’ and to meet their needs for contact and services, despite the poor condition of many streets and disruption to public transport. In some areas supermarkets have provided buses or delivered groceries to older people. The Red Cross distribute taxi chits for older people struggling with mobility issues or social isolation as result of the earthquakes¹⁰⁴. Red Cross, Age Concern and other organisations have helped older people who have moved to new areas to access the services they need and to apply for assistance, for example, through the Total Mobility scheme¹⁰⁵. In addition to voluntary sector initiatives, errand and driving services aimed at older people have sprung up, including “I get around” and Driving Miss Daisy, the latter pre-dating the earthquakes.

Information for older people

Recovering after disasters for people of all ages is greatly assisted if they have accurate and timely information about what they can do for themselves and what services are available. The situation of many people in damaged homes has been made more stressful by not knowing what is going on, by confusing accounts (whether official or hearsay) and by changes in rules and procedures. The importance of good communication and information was a major theme in Sue Carswell’s research (2010, 2012).

A good example of effective information dissemination is the Waimakariri District Council’s New Foundations brand¹⁰⁶. This has been used across all council earthquake-related communications since 2010, in newsletters, on the website and notice boards. The council believes that these initiatives will help with physical, social, and economic recovery and will be a source of reassurance for its residents.

A Christchurch City Council report (Older Adults Sector) suggested that useful communication channels, in addition to web sites (which many older people do not have access to), include newspapers, especially free community newspapers, Age Concern’s ‘Keeping On’ free magazine and the ‘Older and Bolder’ magazine; radio stations – talk-back shows have played their part, especially for isolated older people at night - and direct mail. Communication through existing networks and

¹⁰² Tracy Pirie, Strengthening Communities Coordinator, Initial Observations of Older People within Kaiapoi, personal communication.

¹⁰³ John Patterson, personal communication.

¹⁰⁴ Anonymous. (May, 2012). Red Cross provides mobility assistance for over 65s. *Keeping On*, p.17.

¹⁰⁵ This provides subsidies for taxi transport for people who are certified by a GP as having disabilities. The scheme is administered through Regional Councils.

¹⁰⁶ New Foundations, Kaiapoi Earthquake Hub <http://www.newfoundations.org.nz/news/new-foundations-newsletter.aspx>

groups that people attend in their communities has been mentioned throughout this report, but subject to access and the availability of venues for meetings. Older adults often prefer not to go out at night and large public sessions can be difficult for those with hearing difficulties. So face-to-face communication has been valuable, continuing from the initial survival stages, and much of this has been accomplished through voluntary work. The importance of informal communication and how it has changed as Canterbury moved from the response to recovery stages is being researched at Canterbury University¹⁰⁷.

New Initiatives

Initiatives to revive social capital and improve morale in the recovery period have been varied, ranging from the very informal to the fully organised. Many have involved Cantabrians of all ages. This section looks at some initiatives especially aimed at older people.

John Patterson gives an example of informal initiatives:

There are some wonderful things happening. Neighbours have got to know each other, communities are working together and people are looking after each other much better than we did before. I talked with some people on the west side of town who invited older people to lunch at their houses and these lunches have been running successfully now for about five months. Today, Anne and I took four women, ages 73 to 84, to one of these lunches. It wasn't really a lunch, our hosts put on a beautiful dinner, including wine. We met in a lovely house in a lovely part of town and had a lovely meal. It was great just to sit there and listen to all the chat and all the laughter. Each of these women live in a Red Zone. For the past year they have been in broken homes with no toilets and a driveway that gets flooded every time a big tide comes up the river. Now they have to leave and find somewhere else to live ---- it won't be easy.

Addington Action

After the February earthquake, a community group was set up to help low income residents, especially those with no insurance, by providing free house repairs¹⁰⁸. By July 2011, Addington Action had done about 800 jobs for 500 households¹⁰⁹. The work included emergency repairs on about 115 homes, delivering food parcels and offering support. Disabled people, single parents with young children and elderly homeowners were eligible for help. "About half of the people who are uninsured are elderly," organiser Mike Peters said. "They can't afford to maintain their properties and can't afford insurance." The work of Addington Action was facilitated by the Sister Suburb scheme, which aims to 'buddy-up' suburbs. Addington has been partnered up with South Dunedin. A DIY store in South Dunedin donated materials, and builders from the area travelled to Christchurch to help out at the weekends.

Home Share¹¹⁰

Enliven's innovative Home Share programme was pioneered in the Ashburton district in 2006 and has proved so successful that there are now over 20 groups in Canterbury and the West Coast, some of which have developed as a result of earthquake-related needs. Home Share enables isolated older people or those with dementia, who cannot access existing day-care facilities, to meet in small groups in private homes to enjoy activities, companionship and a home-cooked meal. Hosts with suitable premises are contracted to open their homes for six hours a session. They are trained and paid and receive ongoing support from the Enliven co-ordinator. Home Share is run in partnership with DHBs. Clients go through a needs assessment process and the service tries to match their interests and

¹⁰⁷ Colleen Mills, Canterbury University, personal communication.

¹⁰⁸ Mathewson, N. (2012). Group helps poor, uninsured families. *The Press*, p. A.4.

¹⁰⁹ Anonymous. (July 7, 2011). Scheme brings sisterly love to Christchurch. *ONE News*.

¹¹⁰ Presbyterian Support Upper South Island. (2010). Easter Newsletter 2010. <https://uppersouthisland.ps.org.nz/resources/PHP/easter2010>

backgrounds with those of their hosts. The maintenance and expansion of the programme is limited by transport availability¹¹¹.

Canterbury Communities' Earthquake Recovery Network (CanCERN)

CanCERN's aim is to facilitate efficient, accurate and timely two-way information flow and engagement between earthquake-affected communities and agencies and to provide a forum for identifying and addressing the concerns of those communities, within the context of earthquake recovery. CanCERN membership represents 38 residents' groups from areas that suffered extensive damage in the earthquakes. Some of its activities and commentaries are recorded elsewhere in this report.

Rockers of Ages Elders choir

This project – part of the Muse Community Music Trust - supported by Hagley Community College and the CDHB (Community and Public Health), was inspired by Young @ Heart in the USA¹¹². There are four choirs, with no auditions, aimed at participation and fun for older people. They challenge stereotypes and provide health benefits. "It is especially important at this time for people in Christchurch to come together in positive activities and to strengthen our community connections as we rebuild our city"¹¹³.

Group administrator, Jacinta O'Reilly commented:

We did some volunteer work in Aranui straight after the February quake and we realised there was a big gap for older people. We did some door-knocking and we realised that older people didn't get the chance to get out of the house and socialise. We wanted something happening in the badly affected suburbs. We wanted to create the excitement and the joy of music and show that you don't stop singing when you reach a certain age. They get the chance to socialise, learn something new and challenge themselves and do something completely different.

International Day of Older Persons

To recognise the International Day of Older Persons, a Health, Safety and Wellbeing Expo was hosted by Age Concern Canterbury, with support from the Christchurch City Council and Papanui High School, on 10 October 2011 (such Expos have been arranged by Age Concern for several years: another took place in October 2012). "This day gives us a platform to extend our warmest thanks to Christchurch's older residents," said Carolyn Gallagher, Christchurch City Council Community Support Manager¹¹⁴. "We would like to express the respect we all have for their resilience, their leadership, and most of all, their wisdom."

The Expo showcased services and groups in Christchurch which support and celebrate ageing. It attracted support from a wide range of providers and organisations which donated goods for the day. The Expo offered entertainment, including cooking demonstrations; education about issues relevant to older adults and the resources available to them, and an avenue for information exchange and networking among elder service providers. "The event enables older people to get out and enjoy the day after what has been a pretty stressful year," said Stephen Phillips of Age Concern Canterbury.

International Active Ageing Week

Reported under the headline "*Exercise keeps quake stress at bay for elderly*", residents of Ryman Healthcare's five Christchurch retirement villages demonstrated their exercise skills in September 2011¹¹⁵. Several years earlier, Ryman introduced the "Triple A" (Ageless, Active and Aware)

¹¹¹ Valda Revely, Presbyterian Support, personal communication

¹¹² Gates, C. (September 22, 2011). The golden age of rock 'n' roll: rockers of ages choir. *The Press*, p. A.1.

¹¹³ Diane Shannon, health promoter, personal communication.

¹¹⁴ Christchurch City Council. (2011, September 27). Christchurch's older population thanked [Press release].

¹¹⁵ Glass, A. (2011, September 27). Exercise keeps quake stress at bay for elderly. *The Press*.

programme in their retirement villages. The initiative, which promotes physical health, independence and improved quality of life, provides free weekly exercise classes for residents at all levels of care.

The Triple A programme continued during the earthquakes and helped foster a sense of community and support by allowing residents to come together to exercise and chat. "The Triple A programme has not only benefitted our residents' wellbeing but provides a wonderful opportunity for them to support each other in their daily lives," said a spokesperson.

Age Concern Canterbury - Home and Personal Safety for Older Persons Campaign

The Age Concern campaign, developed in partnership with the Police, Fire Service, Civil Defence, Christchurch City Council and Neighbourhood Support Canterbury, provides tips and helpful information to older people about being safe and having a good quality of life^{116,117}.

Free seminars, aimed especially at people aged 75 plus, began before the earthquakes, at which representatives from the partnership agencies presented safety messages. These messages are reinforced in a workbook, distributed to each participant. Those attending the seminars are encouraged to consider the steps they can take to become more resilient, to get to know their neighbours and to consider opportunities to become an Age Concern and/or a Civil Defence volunteer. This is in the belief that older people have a huge amount to offer as volunteers, and can spread the campaign messages through their networks. The Fire Service contacts every participant following the presentation to arrange for a safety audit and to install a free smoke detector.

Since the earthquakes, additional messages have been added to the seminars, such as to avoid using candles and to recommend torch radios. There is scope for the extension of the programme to areas surrounding Christchurch City.

Memory Map

The Christchurch Press is calling its readers to share their memories of the residential Red Zone in an online feature – the Memory Map – where they can pin their stories and photographs¹¹⁸. The Student Volunteer Army will be helping gather memories for the map at a series of meetings with elderly Christchurch residents. Volunteer Army projects director, Jason Pemberton, said the meetings were designed to bring two generations together. "We are trying to facilitate intergenerational dialogue because we appreciate that there is so much we can learn from each other," he said.

Kaiapoi Community Meals

The Kaiapoi Baptist Church had been running a regular community lunch for five years before the earthquakes. As a result of the earthquakes, there was an increasing need for people to gather, so the lunches became weekly¹¹⁹. There has also been an increase in attendance, with almost all the participants aged 60 or more. The same church started a community dinner in July 2011, originally for four weeks, but continuing because of a demand from older people, mainly those living alone. These community meals provide not only food for older people who do not eat well or cook for themselves, but also an opportunity for the community to come together and to offer care and support for people who need it.

Results from surveys of recent attendees at the lunches and dinners show that seeking company is the main reason for attendance and there is a strong desire for the programmes to continue. Suggestions include providing transport for people who could not otherwise attend. Social contact was expressed as their leading short and long-term need.

¹¹⁶ Civil Defence Christchurch City Council. (January, 2010). Home & Older Persons Campaign a Hit for Canterbury. *The Civil Defender*. 18.

¹¹⁷ Sandys, S. (February 14, 2012). Age Concern to share quake lessons. *Ashburton Guardian*.

¹¹⁸ Gates, C. (July 30, 2012). Heartbreaking goodbyes in the residential red zone. *The Press*.

¹¹⁹ Tracy Pirie, Strengthening Communities Coordinator, The Person to Person Help Trust/Kaiapoi Baptist Church, personal communication.

Tracy Pirie, coordinator of the programme has noticed that older people, mainly women, who have moved into the Kaiapoi community, often from Christchurch, find that meeting for meals helps them to build new friendships. Many of those attending have no other connection with the Baptist Church.

Other community initiatives in Kaiapoi for older people have included morning teas, bus trips, pre-school picnics involving grandparents and winter firewood distribution. Tracy Pirie concludes:

From my experience post September 2010 our older community residents had many needs. There are many lonely elderly living within our community and I have found the most important resource we have been able to offer is our time, a visit and when required a listening ear. We are fortunate that we don't rely on external funding; our contract isn't going to end so as an organisation we are committed to the community long term. We have time to build trust and relationships with the people.

Caring for Carers¹²⁰

Caring for Carers is a community-funded group that supports people who are providing unwaged care for a family member or friend with a long-term mental, intellectual or physical illness or disability. This support is provided through acknowledgment, education and advocacy. Caring for Carers also liaises with community and government organisations to exchange information and to establish contacts which can be valuable to carers.

Maree McGovern is a social worker who coordinates several Caring for Carers groups around Canterbury¹²¹. One of these is an Earthquake Support Group in Shirley for older people and their carers, which meets monthly for afternoon tea, cards and board games and to view DVDs. This initiative was linked to Age Concern Canterbury's Social Isolation research¹²².

Housing

Red Zone issues

On October 31, 2012, the Canterbury Earthquake Recovery Minister Gerry Brownlee announced that residential zoning in Greater Christchurch had been completed¹²³. Of the approximately 190,000 residential properties involved, 7860 are zoned red, meaning that the land is unlikely to be suitable for continued residential occupation for a prolonged period of time. Residents in the Red Zones have two options: 1) an offer of purchase for the entire property at 2007 rating value, with government assuming all the insurance claims other than contents; 2) an offer of purchase for the land only; homeowners can continue to negotiate with their own insurer. The October 31 announcement stated that the vast majority of property owners in the Red Zones had chosen a buyout option. Red Zone residents have until 12 months from the date on their offer letters or until 31 March 2013, whichever comes first, to accept the Crown's offer to purchase the property¹²⁴.

¹²⁰ Caring for Carers Inc. *About Us - What We Are All About*. (n.d).

<http://www.caringforcarers.org.nz/aboutus.htm>

In 2012, the Todd Foundation Christchurch Earthquake Recovery Fund made grants to Caring for Carers, Alzheimers Canterbury and the Eastside Baptist Community Trust Inc. All these were to assist older people whose lives had been disrupted by the earthquakes.

¹²¹ Maree McGovern, Caring for Carers, personal communication.

¹²² Sarah Wylie (2012) Social Isolation and Older People in Canterbury. Age Concern Canterbury.

¹²³ *Residential land zoning complete* <http://cera.govt.nz/news/2012/residential-land-zoning-complete-31-october-2012>

¹²⁴ <http://cera.govt.nz/faq/residential-red-zone-purchase-offer/the-offer-0>

In September 2011 (when the total of Red Zone properties was still less than 6,000), CERA conducted a Property Owners Survey¹²⁵. At that time 59% of Red Zone properties were still occupied; 24% of survey households were singles or couples aged 65 plus. In the Waimakariri Red Zone, 28% were singles or couples 65 plus. In both cases these are slightly higher proportions than in the 2006 Census population.

For many older people with modest houses on small sections in the east of the city, the value of their Red Zone payout will not even meet the cost of a bare section elsewhere. CERA chief executive Roger Sutton has acknowledged the problem, and floated the possibility of amending the city's planning rules to ensure the release of small affordable sections onto the market. Two examples of the situation for older people were published in *The Listener* in July 2011¹²⁶.

(After the February earthquake) Brian Frisken (aged 75) was without power, running water or sewerage. It was a month before electricity was restored and he went four months without sewerage, reliant on a chemical toilet that he emptied into holes in his garden. EQC assessors told him his house, which was shunted several centimetres sideways, would have to be rebuilt. Shortly after the EQC visit, an assessor from his insurance company told him the place could be jacked up, repiled and repaired for \$66,000.

If Brian sells the land and house to the Government at the 2007 rating valuation, he will receive \$222,000. If he sells only his section to the Government at the rating valuation of \$82,000, he can pursue his house claim with his insurance company. Although he is yet to receive a detailed assessment from State Insurance, he fears it will offer only the \$66,000, rather than full replacement. Both options are likely to leave him short of what it will cost to either buy another small one- or two-bedroom home, or a section to build a replacement house on. And, he says, as a retiree, he wouldn't get a mortgage to cover the balance. "So obviously I would have to rent".

Regan and John have continued living in their house since the earthquakes – indeed, compared with many around this city, the interior is in pristine condition. But they have endured three rounds of liquefaction and the house has been declared a write-off by their insurer. But their Red Zone land pay-out – \$73,000 – doesn't come close to the price of good land elsewhere in Christchurch. Adding to the stress, their insurer has told them the value of their rebuild will be only \$1000 per square metre. "You can't build a house for that," says Regan. "Our lawyer says the average price is \$1500." They had been hoping for an affordable land-and-home package in a new subdivision on good land on the northeast fringe of the city, but were told that project had stalled. In the absence of a functioning sewerage system, their waste is diverted into a tank on their property, which council workers suck out every day. It often smells, and if the workers are late it overflows. Despite everything, they don't want to leave Christchurch.

CanCERN¹²⁷ have raised further concerns for Red Zone residents, related to the use of deposits, ongoing payments for mortgages and rent, and salvage from houses which are to be demolished¹²⁸. CanCERN also calls for more attention to be given to the relocation of houses from the Red Zone. All these issues present further stresses for older people in Red Zones, most of whom will have achieved mortgage-free homeownership, but now find themselves facing complex financial and legal issues and the prospect that they will not regain their pre-earthquake assets in their lifetimes.

Other housing zones

¹²⁵ Canterbury Earthquake Recovery Authority. (November, 2011). *Residential Red Zone Property Owners' Survey*. Report prepared for CERA by Nielsen.

¹²⁶ Macfie, R. (July 9, 2011). The plight of Canterbury homeowners. *Listener*. 3713.

¹²⁷ CanCERN. (August 5, 2011). *CanCERN Newsletter No.5*.

¹²⁸ CanCERN. (March 2, 2011). *CanCERN Newsletter No.28*.

Other residential areas were initially described as “hold zones” (still to be decided) pending engineering investigation. Some were rezoned after damage from subsequent earthquakes. Many residents were still waiting a year after the February earthquake to hear if their land would be classified as a “Red” or “Green” (the latter meaning that the damaged homes can be repaired and rebuilt without further need for land assessment). On 6 September 2011, John Patterson wrote:

We live in an Orange Zone so we don't know if our house can be repaired or if it will have to be demolished. If the house has to be demolished we don't know if we will be able to rebuild on our land or have to rebuild elsewhere and we don't know if we will be able to afford to move elsewhere. So we have a lot of don't knows and we are living in limbo; we can't make any plans beyond tomorrow. How long it will take before decisions are made is something else we don't know. You can cope with what you know; it's hard to cope with what you don't know.

In February 2012, Rebecca Macfie reported further examples of how confusing zoning changes could be¹²⁹.

The Orange- and White-zoners are still waiting to be told whether their land is fit to rebuild on. The Blue-zoners were told last June that they were Green and therefore good to go, and then told four months later that because their land is prone to liquefaction they were now members of a new “Technical Category 3” Then there are the Yellow-zoners, who are one notch down from the Blue-zoners on the complexity gradient. And there are people released from the White Zone to Green late last year, but with no idea when their insurers will honour their obligations to fix the severely damaged homes.

Behind all this is a financial time bomb for thousands of displaced householders, whose insurance cover for alternative accommodation is running out. Under most policies, insurers will pay rent only for a year or so. But repairing all the broken houses could take four to five years, the insurers say.

By mid-2012, discussion centred mainly around the 28,000 houses in Technical Category 3 (TC3), many of which are likely to require a rebuild or significant foundation repairs¹³⁰.

Insurance and repair issues

Under its Canterbury Home Repair Programme, the EQC contracted Fletcher Construction – Earthquake Recovery (EQR) as its project manager¹³¹. EQC has committed to fix all homes with damage over \$50,000 by the end of 2013 and homes with damage between \$15,000 and \$50,000 by the end of 2015. Project management and support staff are based in hubs located throughout the community. Home owners can nominate their own contractor as long as they are accredited to Fletcher EQR.

The process is not, however, without its difficulties and frustrations, as pointed out by Can CERN:

There is no set standard for repair or replacement. Every assessor and every insurer has different ideas about costings and methodologies, and as people discuss and compare costings this ultimately generates confusion, mistrust, anxiety and sleepless nights. The process needs to be streamlined and it needs to be rationalised.

Responses from EQC¹³² pointed out the complications that arise when damage has to be allocated to each earthquake event.

¹²⁹ Macfie, R. (February 25, 2012). Christchurch one year on. *Listener*. 3746.

¹³⁰ <http://beehive.govt.nz/release/tc3-workshop-positive-step>

¹³¹ <http://www.eqc.govt.nz/canterbury-earthquakes/home-repair-process/chrp>

¹³² Macfie, R. (June 21, 2011). Ian Simpson interview. *Listener*. Online Only. <http://www.listener.co.nz/commentary/letter-from-christchurch/ian-simpson-interview/>

In September it was simple – we just get there, assess the damage, and pay the cheque. But subsequently, we have to pull out all the claims the individual has put against that house for other aftershocks and other events. We have to allocate the cost of current damage between those events. This means a longer set of steps to get to the payment and the fast track process is not available. There is a huge risk we would end up paying for the same damage twice.

McColl and Burkle (2012) identify delays in the processing of insurance claims as one of the most contentious housing issues arising from the earthquakes. Court action brought by the Insurance Council, over when the maximum EQC cover for a damaged property is reinstated after a natural disaster, caused further delay. There have been calls for government to step in to achieve common processes between insurance companies, given huge differences in how claims were dealt with¹³³. However, in a competitive industry it is hard to achieve standardised processes or agreed frameworks. In the meanwhile people may be caught in their temporary accommodation unsure as to how long their insurer will cover the rent and with inadequate government assistance.

Older people share the problems and delays which many Cantabrians are experiencing in relation to their housing. Their situation is made worse by the lack of time they have to recoup their losses; by the loss of home ownership and by the complexity of the long- and short-term processes involved. Tracy Pirie, from Kaiapoi illustrates some of these issues¹³⁴:

The single most stressful issue post September 2010 and February 2011 has been housing. Some of the initial problems occurred when documentation and information supplied was difficult to understand and in some cases mail remained unopened (a form of denial). Delays in EQC assessors (elderly people don't like to be pushy and are prepared to wait for their turn) and indecision by insurance companies have also added stress. The lack of funds, savings, and at times not having the correct insurance also have not helped the situation, meaning the building of new houses for elderly Red Zone residents has become nearly impossible.

Buying within the Kaiapoi community created its own problems with not only the lack of affordable housing but of suitable housing. The inability to get a mortgage has also limited housing options. There is also group of 50+ (people) that have had to re-mortgage and use retirement savings to be able to afford to build. This has caused extra stress as it has meant, particularly for the women, they have had to seek employment or increase the hours they have been already working.

The options which face older homeowners, the majority of whom have low fixed incomes and very modest savings, are likely to entail financial pressure. If they use whatever compensation they have received from the EQC and insurance pay-outs to move back into homeownership, this is likely to mean taking on a new mortgage, given the high cost of replacement houses and apartments. If they seek to borrow again, and this may be difficult, as lenders are not disposed towards retired people, repayments will eat into low incomes, based on New Zealand Superannuation. In an example, provided by Age Concern, funds received in a pay-out were used to discharge a reverse mortgage, which had the first claim. The older woman was left with a deficit of \$68,000 to rehouse herself. She took out a private loan and is paying off \$309 per month. Some people have taken out bridging finance while they wait and are concerned that they will have to pay it for a considerable time, at high interest rates.

¹³³ CanCERN press release (March 27, 2012). CanCERN calls for Government intervention for Canterbury homeowners.

¹³⁴ Tracy Pirie, Strengthening Communities Coordinator, P2P Help Trust/Kaiapoi Baptist Church, personal communication.

All displaced Cantabrians are faced with the high cost of new sections and houses. Sections on the outskirts of Christchurch will average \$100,000 and new houses \$200,000. As well as being beyond the means of many older people, these are likely to be 40 minutes or more from the city centre¹³⁵.

Rehousing is particularly difficult for older people who have invested heavily, in time and money, to set themselves up for retirement. Many have had upgraded their homes and installed assistive devices in kitchens and bathrooms and will not be able to recoup the value. They may be forced to leave gardens which they had developed over years and which provided them with fruit and vegetables¹³⁶. These situations may be especially difficult to accept when Red Zone houses sustained little damage, but the land can no longer be built upon.

Many older people thus are being forced to leave their homes and their communities, where the personal relationships built up over years have ensured a means of social support. Betty Chapman reports¹³⁷:

These people would have loved to remain here in the eastern suburbs for their remaining days however this is now not possible. I have kept in touch with the seniors that have shifted away to other suburbs, and, when the weather is favourable, they still travel over to join our activities. They say they can't find another group like our one over in the west and they also miss their friends.

But seeking new housing is not an option for many people, and they may feel themselves trapped in their earthquake-damaged homes. John Patterson summed up this situation in April 2012¹³⁸:

I am a 75-year-old trapped in the eastern suburbs of Christchurch. I find that the hardest thing to take is the loss of control of our lives. For all our married lives my wife and I could sell up and move to anywhere we wanted to live. Now we can't. For most of us our house is our main asset. For many of us it's our only asset. At the moment my house has no value and what happens next will be decided by other people I don't even know. We won't have that control back until we have a house with value again and I don't know when that will be. If it takes a few years I am conscious that I could be in my 80s by then and I don't know what I will be like then.

How do we go through this process quickly without rushing people into making the wrong decisions? At times like this people are very vulnerable, especially the elderly. Who is there in this whole process who will act on their behalf? The city is running on rumour and misinformation. A very real concern for our older citizens is what happens if their health causes them to need to move to a retirement village and their house is not repaired or rebuilt. Who will buy their house? Will this be fertile territory for rip-off merchants to capitalise on their misfortune?

These questions are not just economic; they embrace fundamental social justice issues. I would hate to think that the restoration of my control could be delayed by an inefficient building or bureaucratic process.

On July 15, 2012, nearly 17 months after the February earthquake, John and his wife received official notification that their house was to be demolished and were called to a meeting of their insurance company and builders. "It is quite a difficult and long process you have to go through and it's going to be very hard for a lot of people. Many old people are going to need assistance."

¹³⁵ For Red Zone residents: Canterbury Affordable Sections. *Home*.
<http://www.canterburyaffordablesections.org.nz/index.html>

¹³⁶ Gail Payne, Christchurch City Council, personal communication.

¹³⁷ Betty Chapman, Wainoni Avonside Community Services Trust, personal communication.

¹³⁸ Patterson, J. (April 30, 2012). Trapped in quake-damaged suburbs. *The Press*.

There have been moves by the EQC and Fletchers to give priority in the repairs process to “the elderly, the vulnerable, families with young children and those in severely damaged properties”. Uncertainties and discrepancies were highlighted by Christchurch City councillors in mid-2012, who said there were mixed messages from EQC on whether it was dealing with the worst-damaged homes first or those most easily repaired. They called for vulnerable groups to be given special assistance. Problems have arisen over the definition of “vulnerable” and in trying to bring together priority systems mounted by different organisations.

Uninsured older people

Home owners can only make a claim to the EQC if they have house insurance with a private insurer (who collects the EQC levy) and on the contents only if they have contents insurance with a private insurer. EQC cover for land damage which is excluded by private insurers is also only applicable for those with house insurance cover. People who have no insurance on their house or contents have no cover from EQC.

According to estimates provided by the Insurance Council of New Zealand, more than 10,000 properties damaged in the Christchurch earthquake could be without any insurance cover¹³⁹. Older people who are uninsured or underinsured are therefore faced with additional housing problems. There are sometimes genuine reasons why this has happened, as described by Lynne Gibbons, of Age Concern Canterbury. Sometimes a husband looked after premium payments and they lapsed after his death or were not increased. In some cases dementia may be a factor. Cases are cited where homes had not been measured properly by insurance companies or additions to homes had not been taken into account. The costs of premiums may be beyond some older people (this will certainly be the case once post-earthquake, greatly increased premiums have to be faced) and some just take risks.

Free financial advice

Late in 2011 the Commission for Financial Literacy and Retirement Income (CFLRI) received funding from the Christchurch Earthquake Appeal Trust to develop tailored information and resources to help Canterbury Red Zone residential property owners with their financial decisions¹⁴⁰.

The Commission produced the *Red Zone Financial Decision Guide* booklet and online resources with a special page on Sorted (www.sorted.org.nz/redzone). Hard copy information was also available from CERA, earthquake hubs and other government and community organisations. Feedback on the guide was very positive, but a need emerged for a financial advice service on a one-to-one basis to allow people to discuss their financial concerns and gain a better understanding of their financial options.

The Commission sought further funding from the Christchurch Earthquake Appeal Trust¹⁴¹ to set up a service - in February 2012 - to provide Red Zone residential property owners with free individual financial advice consultations at the CERA earthquake hubs at Avondale and Kaiapoi. The advice is provided by a group of experienced, local professional financial advisers from a number of well-known and reputable organisations, who do not represent the CFLRI. All are Authorised Financial Advisers who can provide advice on a range of topics from term deposits, insurances and mortgages, to other investments and financial planning. They are not there to sell people products and there is no cost to residents who seek advice.

¹³⁹ John Grant, Insurance, September 7, 2010 *Helping the over 10,000 uninsured quake victims will create a moral hazard*
<http://www.interest.co.nz/insurance/50615/helping-over-10000-uninsured-quake-victims-will-create-moral-hazard>.

¹⁴⁰ Louise Gibson, CFLRI, personal communication.

Feedback from users of the free financial advice service has been good. They have found the advice valuable, professional, and the service met their expectations. Feedback from Earthquake Support Coordinators has also been positive. Of the people who have used the service to date – 50% have been aged 60 years or older. However, despite what appeared to be an obvious need, the early demand has been less than expected, although it may build over time and by word of mouth.

The Commission has collected information on possible barriers to take-up of this service. Some people feel they are capable of making their own financial decisions based on information provided by the EQC, their insurance companies and lawyers. Pride may be a factor - people have managed all their lives and they don't want to ask for help. The advice offered may be too late for some and too early for others. Some people have received pay-outs and moved on: others are still awaiting final insurance and EQC assessments, so are not yet in a position to make financial decisions, but may use the service once the unknowns are resolved.

While those in the red zone have been the hardest hit, many other people in the Canterbury community are facing difficult financial decisions. In response to this, in October 2012, the Commission launched a second booklet, *Understanding Your Financial Situation and Options*, also funded by the Appeal Trust¹⁴². To support the new booklet, the free financial advice service has been extended to all earthquake-affected Canterbury residents.

Retirement Villages

Following on from the issues outlined in Part 1, problems for displaced retirement village residents continue to be in the news¹⁴³:

The displaced occupants of retirement villages in the Red Zone feel they have been abandoned by the Government. Before the earthquake, Barbara Powell lived in the pleasant Kate Sheppard Retirement Village, but the 82-year-old now rents a chilly Rangiora flat. Having paid \$240,000 for the right to live indefinitely in the retirement village, she got back just \$204,000, a year after being forced to leave the village ... (which) is not enough to buy a place in another retirement village, even with special offers of interest-free loans some villages have made.

Sue Carswell's research (2012) covered long-term impacts for residents of retirement villages. Looking back most felt that they had coped well and attributed this to looking after each other, although continuing aftershocks have created uncertainty and fear. For those who had damaged units there has been on-going uncertainty about when these will be repaired due to the time it has taken EQC and insurance companies to settle claims.

Rental accommodation¹⁴⁴

The largest providers of social rental housing in Christchurch are the Housing New Zealand Corporation (HNZC) and the Christchurch City Council (CCC) and. Between them they lost large numbers of houses and housing units as a result of the earthquakes. About 50% of CCC tenants were older people. As late as August 2012, older people in CCC rental housing in Brougham Village were given seven days to leave their homes, after an engineering assessment found that the complex would not withstand significant seismic activity¹⁴⁵. All these tenants were offered assistance to move, funded by the Christchurch City Council.

¹⁴² The new booklet - *Understanding Your Financial Situation and Options* as well as the *Red Zone Financial Decision Guide* are available from CERA earthquake hubs and other government agencies and community organisations in Canterbury as well as online (www.sorted.org.nz/canterbury).

¹⁴³ Anonymous. (June 24, 2012). Christchurch elderly feel abandoned. *Stuff.co.nz*.

¹⁴⁴ Christchurch Housing Forum minutes, 14 March 2012, facilitator Helen Gatonyi from Tenants' Protection-TPA. On-going meetings on housing issues took place on May 9th, June 1 and June 13- led by a local Counsellor Glen Livingston, Chair of the Housing Committee.

¹⁴⁵ Stylianou, G. (August 8, 2012). Elderly given seven days to leave quake homes. *The Press*.

In March 2012, a Housing Forum in Christchurch brought together public sector and community spokespeople who raised issues about the availability and cost of rental housing, for either short or long-term tenancies. Strain on the rental market was a common theme¹⁴⁶. “Some landlords are ethical and are not charging rent while people move out and the properties are repaired, but others are continuing to charge, and alternative accommodation is at a premium with rents families can’t possibly afford”¹⁴⁷. The Real Estate Institute of New Zealand surveyed its member property managers and found 66% of the agents were trying to find month-long temporary accommodation for tenants while their houses were repaired. The property managers said virtually nothing was available in the city. About 40% said it was impossible to relocate tenants, and most were remaining in quake-damaged homes while tradesmen work around them. At that time CCC reported almost full occupancy of their remaining rentals and HCNZ had several hundred units vacant due to damage. The City Mission found that the homeless population of Christchurch was growing. Businesses and NGOs relocating in areas which were traditionally residential was making matters even worse.

The Tenants’ Protection Association pointed out that many displaced people were new to renting and needed basic information and education. This applies to many older people who have lost their freehold status, perhaps for ever. People in this situation, as well as those lodging short term (sometimes with older people who have spare rooms) or living with family, may need the protection of the tenancy tribunal if difficulties arise. Increasing rents, even with support provided by the Accommodation Supplement, will again reduce the income which older people have to support their retirement. They are likely to see any savings they have diminish, reducing the ability to provide an inheritance, if this has been one of their life aims¹⁴⁸.

Despite abundant evidence of Christchurch's worsening rental housing crisis, Earthquake Recovery Minister Gerry Brownlee appeared to rule out further government intervention, saying, in early 2012, that the solution is best left to the market¹⁴⁹. If government had jumped in earlier, he said, it could have artificially lowered the appetite of private investors to provide a solution. This was refuted by Robin Clements, a senior economist with research and investment house UBS, insisting that the state should step in – “Christchurch's market is working and it is doing what markets do, but that is not providing an outcome that is socially acceptable”¹⁵⁰.

Assistance with housing

While unhappiness and frustration about housing issues are clear and widespread, this is not to suggest that nothing has been done to assist older people (and all people) in Canterbury with their housing issues. Central government agencies, CERA and local authorities have provided housing subsidies, temporary housing villages, and Red Zone schemes to buy people out of properties, as well as the Accommodation Supplement and income-related rent supplement for Housing New Zealand Corporation properties. The extent to which older people have used these means of assistance is not easily ascertained.

Canterbury Earthquake Temporary Accommodation Assistance (CETAS)

CETAS was set up in early 2011, jointly by the Ministry of Social Development (MSD) and the Department of Building and Housing (DBH) to help households find temporary accommodation. CETAS staff work with householders to assess their accommodation needs and match and place them with the best available housing. One of its functions is to provide temporary accommodation assistance (TAA) for displaced people. TAA can help with rent, board or motel stays and is available

¹⁴⁶ Carville, O. (April 12, 2012). City rental crisis deepens. *The Press*, p. A.1.

¹⁴⁷ Jigsaw. (March 24, 2012). One year on - aftermath of Christchurch earthquakes continues to cause stress. *eNews*.

¹⁴⁸ Strongman, L. January 24, (2012). Resilience, Toughness and Damage. *Australian Design Review*.

¹⁴⁹ Anonymous. (March 20, 2012). Christchurch rental crisis 'best left to market' – Govt. *ONE News*.

¹⁵⁰ Olivia Carville (April 3, 2012) Rental shortage -State must step in. *The Press*. <http://www.stuff.co.nz/the-press/news/christchurch-earthquake-2011/6734583/Rental-shortage-State-must-step-in>

to all homeowners regardless of income. To be eligible people must be: unable to live in their house because it is unsafe until rebuilt or repaired; required to leave their home while land remediation and/or house rebuild or repairs occur; intend to return when their house is habitable; have used all insurance coverage for temporary accommodation. People in the Red Zone must intend to live in the Canterbury region once they receive part or full settlement from the Government or full settlement from their insurance company¹⁵¹. Set payments are available of \$180 per week for a single person and \$275 for a couple¹⁵². There are examples of discrepancies between TAA and rents payable, suggesting that some people will eventually run out of money to pay the difference.

The Press reported on the inadequacy of TAA for an older lady¹⁵³.

Rob Mayes was dismayed to learn his mother would receive just \$180 a week in government support (TAA, via CETAS) after the temporary accommodation insurance allowance on her quake-damaged home ended. The future of her White-zoned property was uncertain and the house was too dangerous for her to remain. Mayes said the \$180 would pay for little more than a "room in a student flat" because of the city's spiraling rental prices... A Ministry of Social Development spokesman said displaced homeowners struggling with living costs should visit Work and Income. They would be dealt with on a case-by-case basis.

TAA ceases when a client receives full settlement from the Government and/or their insurance company (as this is when they cease to have to meet costs on their uninhabitable home); when their Government offer lapses, or 17 February 2013, when the programme was originally to expire. The availability of the Temporary Accommodation Allowance was extended in late September, 2012. Residents will now have access to the programme until March 1, 2015.

CETAS also administers the temporary accommodation villages, used by people whose homes are uninhabitable and who need accommodation while their homes are repaired or rebuilt. Three sites were selected by the Department of Building and Housing (DBH) in conjunction with the Christchurch City Council, with portable dwellings to be available for up to two years. The sites were chosen in heavily damaged areas to help people remain connected and involved with their existing community. Some of the portable homes have been specifically designed and constructed to provide a level of accessibility and usability for people with disabilities (e.g. wheelchair ramps, accessible showers, etc.). There is flexibility about how different occupants are grouped; families may be clustered together, while elderly people may want to be in quieter areas¹⁵⁴.

Ongoing housing assistance is also being offered to older people through voluntary and community groups. Comcare is working with older people with mental health issues¹⁵⁵. As well as helping to find alternative housing when repairs are carried out, the Earthquake Support Coordinators, Age Concern, church groups and others are helping with removals. These can be taxing both physically and emotionally for older people who may have been in residence for decades, especially those without family support. Older people in rental accommodation are still facing relocation and many boarding houses in the city centre have been demolished. There are still older people living in Red Zones amid empty sections and abandoned and vandalised housing, who are finding it hard to make decisions and go through the required processes¹⁵⁶.

¹⁵¹ Canterbury Earthquake Temporary Accommodation Service. *Frequently Asked Questions*. (n.d.) <http://www.quakeaccommodation.govt.nz/frequently-asked-questions>

¹⁵² The rates are close to rental costs set for temporary villages, but are intended to be available only until 17 February 2013 - 2 person (1 bedroom) \$190 per week; 4 person (2 bedroom) \$271 per week; 6 person (3 bedroom) \$337 per week; 8 person (4 bedroom) \$423 per week

¹⁵³ Greenhill, M. (April 10, 2012). Elderly in post-earthquake plight. *The Press*.

¹⁵⁴ CETAS also administers the Earthquake Support Coordinators services covered in Part 1, earlier led by Family and Community Services in MSD. <http://www.quakeaccommodation.govt.nz/>

¹⁵⁵ Comcare's Housing Service has been developed to address the particular housing needs and issues of people who experience mental illness and addictions. <http://www.comcare.org.nz/our-services/housing-services.html>

¹⁵⁶ Examples cited at the Wainoni Methodist Church craft and art groups, October 2012.

Health Services

Despite fears about epidemics, the health system in Canterbury appears to have operated well after the initial survival phases. Messages about hygiene and care with food and water were well propagated and appear to have been observed. Pandemic planning relation to a bird 'flu threat seems to have been useful for health and care services (Carswell 2011).

The Canterbury Primary Response Group (CPRG), with Pegasus Health, has for some years maintained a multidisciplinary health service response, with advice for primary care and pharmacy services¹⁵⁷. Pegasus has a large database of practices and patient demographics for those enrolled with Partnership Health. This group was invaluable during the earthquake period and also for other emergencies, such as snowstorms and power breakdowns. There is also an information website for GPs (and clinicians generally) called Health Pathways. Kingman (2012) calls for health providers to address 'exposure estimation', i.e. who needs to be targeted after an earthquake, and a need to prioritise treatment¹⁵⁸.

The winters of 2011 and 2012 were cold, with episodes of snow, and the DHB issued regular reminders for people to check on elderly and disabled people, especially those living alone. Programmes to replace open fires with heat pumps can create problems, especially for older people, when the power is cut¹⁵⁹. In June 2012, The Press reported on how services were being maintained for older people living in earthquake damaged homes¹⁶⁰. Vulnerable residents affected by the cold would be better prepared after last year's snow, said Mary Richardson of the Methodist Mission. "Welfare agencies had also learnt valuable lessons".

Anecdotal evidence suggests that chronic conditions among some older people have been exacerbated recently by cumulative stress¹⁶¹. This has resulted in hospital admissions for asthma, pneumonia, and anxiety attacks (sometimes thinking these were heart problems). Some GPs in the eastern suburbs have attributed the increased number of asthma attacks to dust in the atmosphere resulting from liquefaction as well as from demolitions.

Although 2011 was a light winter for influenza, Christchurch news stories from July 2012 report a severe outbreak of 'flu which put pressure on hospital admissions. On July 17 it was reported that there were 52 people with influenza in isolation in Christchurch Hospital and five in intensive care. This is well above the national average and the highest rate among DHBs¹⁶². Canterbury Health Laboratories virologist Dr Lance Jennings wondered whether the Christchurch earthquakes, leading to cramped conditions in houses, schools and business premises, could have been a factor¹⁶³. There was no mention of the age of influenza sufferers.

Mental Health

¹⁵⁷ Dr Jenny Keightley, Clinical Leader Aged Care Workstream, GP and Clinical Leader Primary Care, Christchurch., personal communication.

¹⁵⁸ Kingman, S. (2012, March 05). The impact of exposure to the earthquake on geographical variations in non-emergency stress related health. *Presentation at the University of Canterbury Earthquake Research Forum*. University of Canterbury: Christchurch.

¹⁵⁹ Wilkinson, D. (2011). Christchurch Earthquake: Part 1. *Neighbourhood Watch Australasia*. March. 6(1), pp.18-21.

¹⁶⁰ Greenhill, M. (June 7, 2012). Welfare workers brave snow to ensure vulnerable cared for. *The Press*, p. A.3.

¹⁶¹ Betty Chapman, Community Co-ordinator, Wainoni Avonside Community Services Trust, personal communication.

¹⁶² Stylianou, G. (July 17, 2012). Canterbury flu rate 4 times. *Stuff.co.nz*.

¹⁶³ Daly, M. (July 27, 2012). Flu epidemic fears talked down. *Stuff.co.nz*.

Whereas many older Cantabrians are resilient and stoic, getting on with day-to-day activities, there is a proportion, possibly 5-10% who require mental health services. In June 2011, Canterbury mental health liaison officer, Cerina Altenburg, said that people who were only "just managing" after the previous earthquakes were now seeking professional help¹⁶⁴. "We are seeing anxiety and depression, and harmful use of alcohol." Some residents were struggling with relationships and people who lived alone, particularly the elderly, were vulnerable.

Psychological support for Canterbury residents is available through the public system, but also the voluntary sector. Salvation Army social workers manage teams of mobile community care workers, supported by Westpac Bank. The Community Care vans give people easy access to help or simply the chance to have a chat over coffee and receive some much-needed emotional support. Twelve months after the February earthquake, Salvation Army social workers were becoming more involved in complex case management, referring those in need of treatment to mental health agencies. Counsellors are dealing with symptoms such as sleep deprivation, anxiety, depression, hyper-vigilance, irritability and anger in dealing with financial and housing issues, and grieving for friends and family who have moved away.

The effects on older people's mental health can vary, as Matthew Croucher noted¹⁶⁵:

I have been aware of some older people with chronic depression and anxiety who have rallied tremendously after the quake, particularly when they needed to care for others, so that their mental health has improved," he said. "I have also been aware of some older people with the same problems who have had their ill- health worsened with the stress, worry and grief associated with what has happened to them and those they care for." Mr Croucher (sic) said people assumed old people with dementia would not be affected by traumatic events because they could not remember them. However, most people with dementia could remember something about the quake. He said communities needed to "wrap around" older people and their carers, to give extra support. Carers needed to show people with dementia that they were able to cope, by showing they can get by despite the stress and hardships.

Several studies related to mental health after the earthquakes were carried out under the University of Otago summer studentship programme¹⁶⁶. These identified the importance of control and stability in people's lives¹⁶⁷ and of social support¹⁶⁸. A study of seven people aged 70-84 at the Mabel Howard Clinic discussed their recovery from anxiety¹⁶⁹. Disruption to their everyday activities made dealing with anxiety more difficult, but self help was valuable, such as breathing exercises, keeping busy, and retaining a sense of humour. Most of the people chose to avoid medication if possible. The study showed that older people can recover from anxiety with self management and good external supports.

Another mental health issue, particularly for older people, was identified by Age Concern community nurse Kerry Howley at a forum in May 2012¹⁷⁰. She said that the earthquakes had revealed more cases of people living in cluttered, filthy conditions, often linked to hoarding. "This issue has always been around, but because of people knocking on doors and maybe because of repairs to homes and inspections, we've seen more cases." She said there were no New Zealand statistics or research on this issue, and called for agencies to work together to deal with it. Anxiety, depression, attention deficit

¹⁶⁴ Glass, A. and Gates, C. (June 6, 2011). Mental health takes a big hit from quakes. *Stuff.co.nz*.

¹⁶⁵ Anonymous (May 2, 2011). Elderly's mental illness up. *The Nelson Mail*, p. 5.

¹⁶⁶ University of Otago Research Office (2012). *2011/2012 Summer Studentship Programme: Lay Reports*. Christchurch: University of Otago.

¹⁶⁷ Chamberlain, M. (2012). Post-earthquake experiences and stressors in those seeking treatment for earthquake-related distress. In University of Otago Research Office, op.cit.

¹⁶⁸ Eggleston, K. (2012). The predictor of mental health effects of earthquakes. In University of Otago Research Office, op.cit.

¹⁶⁹ van Rij, N. (2012). What supports recovery? Older people recovering from anxiety talk about their experience. In University of Otago Research Office, op.cit.

¹⁷⁰ Stylianou, G. (July 6, 2012). Urge to hoard linked to depression. *Stuff.co.nz*.

disorder and social phobia were common problems in hoarders. Workers from the Christchurch City Council, SPCA, Red Cross, Salvation Army and Presbyterian Support were among those who attended the forum and formed a working group to help tackle hoarding and squalor in Canterbury.

On a more spiritual plane, the Anglican Bishop of Christchurch, Victoria Matthews, said she was seeing a "deep weariness of soul" among Christchurch residents¹⁷¹.

This is going to be a huge challenge to the spiritual and mental health of the community. I was talking to an elderly man the other day who had lived through war, and been evacuated six times in his life. He knows the drills, so to speak. But we are a generation who have never been through a war, never lived through a sustained, critical period like this.

Home support services

Given the loss of hospital and residential care beds due to earthquake damage, there has been an emphasis on keeping frail older people at home, if at all possible. Home support services have had to grapple with a continuation of the issues outlined in Part 1. One provider reported a shortage of home support workers in the eastern parts of Christchurch and "a group of clients in the Red Zone areas who haven't yet been able to relocate, so they are still in their homes and they still need quite a bit of care"¹⁷².

Access is still a major problem because of the condition of the roads, and many support workers are less willing to travel. Travel costs have escalated and caregivers are not compensated for the additional cost of wear and tear on vehicles caused by driving to clients over potholed and broken roads. The general manager of a home support organisation summed up the issue. "We're seeing people's cars that can no longer cope with the roads. The maintenance costs become so high - suspension and the tyres - that (caregivers) exit work. A lot of people who work for us don't have the most modern vehicles, they don't stand up to earthquake conditions."

A report from the Meals on Wheels service in July 2012 showed that numbers of recipients were still down 15-20% compared to pre-earthquake numbers¹⁷³. In some areas "rounds" had been discontinued (such as Red Zone areas of Redcliffs and Avonside). But there are now waiting lists for Meals on Wheels in the western suburbs, such as Halswell, Upper Riccarton and Papanui. These are areas with many motels and flats, and little damage to houses. When recipients have to move out of their houses during repairs the meals service can still be provided in their new locations. Meals on Wheels is another service which provides valuable face-to-face contact for older people, as well as food.

CREST (Community Rehabilitation Enablement and Support Team) is an initiative to relieve pressure on hospital and residential aged care facilities; free up hospital beds by reducing the duration of hospital stays and supporting people at home. CREST was planned before the earthquakes (on the lines of a similar programme in Waikato, called START),¹⁷⁴ but the CDHB moved its establishment forward. The programme started admitting patients from wards at Christchurch, Burwood and Princess Margaret hospitals in April 2011. In general, people are now able to leave hospital two or

¹⁷¹ Anonymous (June 17, 2011). Frayed nerves showing, say helpers; Residents turn to professionals. *Manawatu Standard*, p.5.

¹⁷²New Zealand Human Rights Commission (2012) *Caring Counts*, Wellington, p.29 The Human Rights Commission is monitoring the effects of the Christchurch earthquakes on the human rights of those affected, in particular vulnerable groups such as frail older people. It is using the human rights approach outlined in the IASC (Inter-Agency Standing Committee) Guidelines on the Protection of Persons in Situations of Natural Disasters, 2011. The guidelines that relate to older persons include non-discrimination, participation and consultation, special attention during evacuation and family re-unification, among other issues.

¹⁷³ Nicky Moore, Food Services Contract Manager, Canterbury District Health Board, personal communication.

¹⁷⁴ Helen Lloyd, Clinical Nurse Specialist, Princess Margaret Hospital (March 2012). "The CREST Service – Is this the answer to managing demand for aged care?" Presentation at Council of Christian Social Services Conference, Wellington.

three days earlier than they would without the intensive support available through CREST. The comparative costs are \$690 a day in hospital and \$90 per day at home (Carswell, 2011)

Interdisciplinary teams visit discharged patients in their homes four times a day, seven days a week, for up to six weeks. The aim is to improve function and independence in a way that restores independence, “doing with, rather than doing for”¹⁷⁵. Many patients achieve partial or complete recovery. Others can be handed on to the long-term needs team¹⁷⁶.

Residential care

By May 2011, the CDHB was considering policies for the “repatriation” of residential care evacuees¹⁷⁷. There was still a scarcity of residential care beds and prioritising was necessary¹⁷⁸. The criteria applied included fairness, compassion (end-of-life situation), to minimise harm and keep up care standards. Priority was given to returnees. Where people did not wish to return, travel costs for family would cease. The process for deciding priority included a special panel, plus independent review. The CDHB prioritisation process was supported by the New Zealand Aged Care Association as it provided a single point of entry system, which cut administration costs for rest homes and eased pressure from families seeking bed spaces. On the other hand there was reduced choice for older people and their families. “The choice they previously enjoyed in terms of where they wanted to age has all gone,” said Martin Taylor of the NZACA.

The impressions of aged care residents, including evacuees, and also staff and managers were presented in a report to the CDHB in April, 2012 (Heppenstall et al. 2012). This data confirmed the value of InterRAI and the need for accessible centralised records. Resilience among older people in care was helped by their life experiences, including wartime evacuations, and extensive support in the receiving areas from church and school groups helped a great deal. The research also emphasised the importance of communication, with the older people themselves and with their families.

In her second report for Eldernet and the CDHB, Sue Carswell reported the views of older people in residential care during the recovery period (Carswell 2012). The long-term impacts of the earthquakes affected their health; many felt that they had become more fragile, anxious and hyper vigilant due to uncertainty about aftershocks. There were social impacts, because access to family and friends had changed. Several residents said their close family members had to leave their homes and move out of the region/country, which meant they visit far less regularly. Some had suffered material loss in the form of possessions and treasured heirlooms. For other rest home residents the earthquakes had had little impact as their facilities held up well and their own positive attitudes had helped them to cope.

The experience of the earthquakes led to immediate improvements in the aged care sector relating to emergency planning and preparedness (Carswell 2011). Quite a few facilities had reviewed their plans after September 4, putting in new systems, equipment and supplies and further enhancements were applied after February. Providers operating on a national scale had many advantages in terms of access to staff and equipment. They could arrange for structural engineers and facilitate repairs. Mutual aid to accommodate evacuees, to provide laundry and food services also extended to independent facilities.

Carswell (2011) lists practical advice for residential care and learnings from the earthquake experiences, some of which apply to other health services for older people. These emphasise the need for facilities to plan for self-sufficiency for at least a week; to update contact lists and essential patient

¹⁷⁵ Healthcare of New Zealand. (October, 2011). *Supporting people to return home from hospital sooner*. <http://www.healthcarenz.co.nz/latest-news/2011/10/12/supporting-people-to-return-home-from-hospital-sooner/>

¹⁷⁶ Stylianou, G. (30 October, 2012) 1700 Cantabs kept out of hospital *The Press*. <http://www.stuff.co.nz/the-press/news/7878924/1700-Cantabs-kept-out-of-hospital>

¹⁷⁷ Canterbury District Health Board. (2011). *The Repatriation of those relocated out of Canterbury after the Earthquake. May 2011*. Christchurch: Canterbury District Health Board.

¹⁷⁸ Todd, R. (April 25, 2011) Choice gone for Christchurch old folk. *The Press*.

information and ensure it is accessible in an emergency; to maintain hygiene standards and guard against infections; for management to remain calm, accessible and supportive to staff, appreciating their need for relief and time to manage their own affairs. In the interests of the residents it is important to maintain basic routines and normal meals, plus warmth, comfort and reassurance. For many older people in care the impact of the earthquakes was more emotional than physical.

Summary

Older people faced a range of issues in the recovery period whether they remain in their homes or relocated. If older people remain in their homes:

- Disruption of well-established neighborhoods; loss of local shops, GP surgeries and other services
- Loss of local transport routes and services, bus stops may now be inaccessible, therefore increased reliance on others for transport
- Safety and security in areas where many people have left, including danger of walking on uneven surfaces
- Loss of familiar neighbourhood areas where they could walk for exercise and to activities
- Loss of social activities because venues can no longer be used
- Family and friends who provided support may have moved away, leaving them isolated
- Worsening of chronic conditions, sometimes linked to stress and isolation, plus risks to health over winter made worse by housing damage and heating inadequacies
- Difficulties and delays in negotiations with EQC, insurance companies
- Inability to sell homes, perhaps to join family who have moved away, even if they are willing to do this
- Risk of elder abuse linked to crowded or unsuitable living conditions, as well as from bogus tradespeople and assessors.
- People who have been able to manage independently at home may now have to consider residential care.

If older people move:

- Unwillingness to move from a familiar neighbourhood, but possible forced evacuation from homes in Red Zones
- Losing neighbours of longstanding and loss of support from local friends and relatives
- Losing social networks and activities, difficulty in re-establishing these
- Difficulties of rehousing – short-term and long term, assessing options for the use of insurance pay-outs
- Financial difficulties arising from the need to re-house and refinance
- Worsening of chronic conditions, sometimes linked to stress and isolation
- Risk of elder abuse linked to living conditions – with family, in temporary housing.

Part 3: Lessons for the Future

Preparedness and Survival

Christchurch City Council's "Ageing Together" document includes a section on public information. The council operates the CINCH (Community Information Christchurch) database and this can be accessed online or at libraries. Advice and information sharing is facilitated through strong interagency collaboration in the Canterbury Region. Examples of this from the older adults sector include:

- Age Concern Canterbury operates an online database with most neighbourhood groups for older adults, including contact details for Over 60s, Friendship and Senior Citizens Clubs, Probus Clubs, faith based activities, Grey Power, recreation events and outings;
- Elder Care Canterbury, led by Presbyterian Support, has a substantial organisation membership list and facilitates regular Pacific Fono, Kaumatua Hui, consumer group meetings, and a large interagency provider forum that meets two monthly;
- The Council of Social Services includes many community agencies in the NGO sector;
- Christchurch City Council's Strengthening Community Advisors facilitate neighbourhood network meetings that include local older adults' organisations. The council's recreation team runs specific recreation programmes for the sector. The Council also has a metropolitan community advisor holding an older adults' portfolio.

Maintaining and developing these networks would clearly assist in the event of any future disasters, as well as improving the wellbeing of older people in normal times. More targeted initiatives linked to disaster preparedness have already been mentioned, including Age Concern's home safety courses and Life Tubes. Specific information for older people, disseminated through country-wide networks should be updated in the light of the Canterbury experience. The method of information dissemination needs to take into account what works best for older people. Alternative communication methods may be necessary, noting varying literacy levels, cultural and language barriers and lack of access to the internet. Many reports suggest that the radio is a valuable and accessible medium of communication for older people (an emphasis on having battery or wind-up radios is part of earthquake preparedness messages) and non-English language stations cater for minority communities.

An informant from Timaru Neighbourhood Support emphasised the need to be quite clear and careful about how messages are put out.

You have to be very careful what you say and think about the consequences, as people can take you literally. Conversely, there is the importance of trying to get the message across around what to do which will not be heard unless it 'hits the heart.'

There is evidence that, although awareness of earthquake danger is high in New Zealand, levels of preparedness are low. In the 2008 New Zealand General Social Survey (NZGSS), only 11% of households met all the requirements for what was termed "better preparation" (15% met requirements for "basic" preparation)¹⁷⁹. These levels rose to 13% and 18%, respectively, in the 2010 NZGSS. Levels of "better" preparedness were higher in Canterbury and Wellington (20% and 18%, respectively), but much lower in Auckland. Disaster preparedness needs to be part of everyday life for everyone, linked to community wellbeing. For older people, the emphasis on local action and self help - looking after each other - is especially important as they are likely to be in scattered suburban areas when disaster strikes.

¹⁷⁹ Statistics New Zealand (June 2012). *How prepared are New Zealanders for a natural disaster? Results from the 2010 General Social Survey*. Wellington: SNZ.

Although the purpose of this report is to discuss the impacts of natural disasters on older people, these are not the only emergencies which they need to be prepared for. Robyn Tuohy's Ph.D. research¹⁸⁰, although still in its early stages, shows that health emergencies are particularly salient in older people's minds. They are probably more likely to experience these – falls, strokes, heart attacks– than earthquakes or tsunamis. In an ageing population, this is an important consideration for public education and policy responses.

Preparedness - Messages for older people

Older people can take numerous steps to prepare for natural disasters and to mitigate their impacts. This recognises the value of self help and the reality that outside help may not be immediately available. Sue Carswell's respondents emphasised being prepared to survive on your own as you could not rely on the emergency services in a large scale disaster.

Civil Defence advises people to “Drop, Cover and Hold” in the event of an earthquake. This may not be appropriate for older people with limited mobility. “Stay put and hang on” should be the watchword. They are advised to remain where they are: to brace themselves in place; protect their heads; to stay in bed, if that is where they are, and protect their heads with a pillow; and to stay away from windows to avoid injury from flying glass¹⁸¹.

Most of the following call for forward thinking and most would enhance the wellbeing of older people, even in the absence of major disasters.

- Become involved in neighbourhood support groups and consider being an Age Concern and/or a Civil Defence volunteer¹⁸².
- Encourage groups of older people, meeting for social contact, hobbies and common interests, to include disaster preparedness discussions in their programmes.
- Get to know neighbours before a disaster happens. In neighbourhoods and retirement villages formalised schemes for people to check on one another are helpful.
- Have current contact information ready and near the phone and find out where to go for information and help. Life tubes are useful if they are accessible and up to date¹⁸³.
- Have a disaster pack ready, preferably on wheels for easy movement. This should include water and food, medication, radio and other essentials.
- Candles in emergency kits are not recommended; they are a fire risk, especially in aftershocks. Wind-up or battery torches are preferable. Wind-up radios often have lights and a means of re-charging mobile phones¹⁸⁴.
- A non-cordless landline phone should be retained.
- It is useful to know how to turn the water supply off at the mains, so that damaged pipes and hot water cylinders do not cause problems.
- Keep insurance policies comprehensive and up-to-date and become familiar with their coverage and processes.
- Age Concern Home and Personal Safety courses are a good way of preparing for health emergencies as well as disasters. These need to be more widely available.

Preparedness and response - Messages for people working with older people

- Information on preparedness and survival should be age-specific¹⁸⁵, recognising, for example, that older people may not be able to lift chemical toilets or heavy emergency packs¹⁸⁶.

¹⁸⁰ Research in progress, Robyn Tuohy, personal communication.

¹⁸¹ More information about what to do in an earthquake for people with disabilities or mobility issues is available at: Get Thru. *People with disabilities or special requirements*.

<http://www.getthru.govt.nz/web/GetThru.nsf/web/BOWN-7H442K?opendocument>

¹⁸² Civil Defence Christchurch City Council. (January, 2010). *The Civil Defender*. p.18.

¹⁸³ Age Concern Life Tubes are described in Part 1. Life Tubes are sold through Age Concerns nationwide. This service is recognised by St John, Police, and Fire Service as a valuable tool in an emergency.

¹⁸⁴ Similar messages are promoted for rest home residents through Sue Carswell's research.

- It should not be assumed that older people have internet access.
- Given the stoicism and reserve of many older people, support workers probably need to be more proactive to finding out their needs¹⁸⁷.
- Identification and tracking methods for vulnerable older people will be valuable (see health services section).
- Psychological “first aid” after a disaster will include basic non-intrusive care with a focus on listening, assessing needs, ensuring basic needs are met, as well as protection from further harm.
- Older people may need help with financial, legal and insurance matters. It would be better for supporters to accompany older people to such meetings rather than simply making referrals.
- At the same time, older people should be seen as a resource, making use of their resilience and strengths for recovery.

Caring for vulnerable older people

Many commentators recommended that a register or database of older people being supported in the community, or requiring special care, is central to the disaster response. As shown in Part 1, a range of organisations keep such lists. They include:

- The Ministry of Social Development’s national database of New Zealand Superannuation recipients. Sub-groups can be identified within this, such as people who receive a Disability Allowance or live alone.
- Primary Health Organisation lists of patients. “Flags” could be added to indicate particular health conditions or medication requirements.
- District Health Boards have information on older people who receive their services – home support, district nursing, Meals on Wheels.
- Utility providers have databases of customers, not usually indicating age, but which could be tagged for special needs, for example, reliance on electricity for medical equipment.
- Databases built up from referrals or self-referrals through Help Lines, such as the Earthquake 0800 number, counselling services or CETAS.
- Voluntary agencies also have lists of their members/people supported – Age Concern, Red Cross, Alzheimer’s Society, church groups.

Such lists can be used as a basis for phoning and door-knocking after an emergency to check on safety and survival needs. Issues such as privacy, updating, ensuring access and resources will need to be worked through. Coordination is a challenge, but it appears that allowing some duplication is preferable to missing people, recognising that several calls may be needed to identify needs and overcome some older people’s resistance to accepting help. High needs people, who were well connected with services received numerous calls after the earthquakes and some were irritated by this. Experience in Canterbury showed that many older people were not in touch with the usual services and networks and that new needs were emerging even months after the earthquakes. Many were said to be “on the cusp” of frailty and thus needed regular contact and support. If serious need was to be addressed, callers need to know what questions to ask – what one community worker called “a mini-assessment”. The Red Cross has a useful check-list.

An important question to be addressed is whether registers of older people and their needs in a disaster situation should be global (e.g. based on receipt of superannuation, electoral roll), based on fragility (DHB service recipients) or segmented according to type of vulnerability (dementia sufferers). This mirrors the universal/targeted debate in social policy. Workers in the community,

¹⁸⁵ Work being carried out at the Joint Centre for Disaster Research includes studies of community resilience, emergency management planning and hazard education. Results of the latter will be used to design education strategies to meet the specific needs of communities (through local authorities), businesses, schools and others.

¹⁸⁶ Sandys, S. (February 14, 2012). Age Concern to share quake lessons. *Ashburton Guardian*.

¹⁸⁷ Sally Keeling, personal communication.

from all sectors, suggest that the global and the local approaches both have their strengths and weaknesses. Both are required in the aftermath of disasters and they agreed on the value of face-to-face contact. The global approach is more likely to contact all older people, given the universality of New Zealand Superannuation, but they are not being approached by people they know and therefore may be less open in their responses. The narrower the scope, the greater the possibility that some people will be missed. Even a broad-based approach may overlook the transient and reclusive. General Practitioner registers may be a useful way of tracking older people as almost all are registered with a doctor. The United States “Gatekeeper” programme, mentioned by Sarah Wylie in her report on social isolation involves proactive identification of at-risk older adults and may have applications in this country, generally, as well as in disaster situations (Barrett, Secic & Borowske, 2010)¹⁸⁸.

A further issue is the level at which such registers should be maintained. Should this be at national, regional (local authority) or neighbourhood level? This is linked to the discussion of whether assistance should be delivered through “top-down” or “bottom-up” systems, or through some mixture of these. Community-level responses in emergency situations can respond quickly; they have in-depth knowledge of needs and are based on on-going relationships. It is, however, the top-down systems which have the resources to provide survival and recovery needs.

Community-level responses

The ways in which community-level organisations responded after the earthquakes, to provide care and support for older people, have been described earlier. These organisations showed great initiative in working together and developing new activities and services, such as door-knocking, setting up drop-in centres so that people had opportunities to talk and work their way through bureaucracies, share experiences and receive information, and longer term, organising events to raise morale¹⁸⁹. Capacity has clearly been built in the sector as well as mechanisms for sharing and working together. The challenge is now to retain and develop this capacity, which includes interactions with local and central government agencies.

As the Canterbury experience has shown, community driven initiatives appear to be particularly successful on a local scale and contribute significantly to disaster relief and recovery¹⁹⁰. Most people derive initial support from neighbours, relatives and friends. They are more likely to know if an older person needs assistance as it takes time for Civil Defence and similar organisations to identify vulnerable people in a large scale emergency. Familiar people and surroundings also encourage trust and solidarity. Disaster preparedness can also be devolved to the local level, using a community development approach¹⁹¹.

The appropriateness of community-level approaches in supporting older people in disaster situations (as well as in more normal circumstances) suggests that more support should be given to Neighbourhood Support Groups and the emerging Communities and Neighbours (CAN) initiative.

Neighbourhood Support is now working with other organisations to set up a database of needs, resources and skills within the local groups. Email and text networks will be developed. Success depends on volunteer coordinators to “make things happen” at street and suburban level. Across the city there is a great deal of variation in how well organised Neighbourhood Support is. David Wilkinson suggests that this is not so much dependent on socio-economic level but on initiative and

¹⁸⁸ Wylie, S. (2012). *Social Isolation and Older People in Canterbury*. Prepared for Age Concern Canterbury, p.17

¹⁸⁹ Torstenson, S. & Whitaker, M. (2011) *Supporting Community Resilience in Post-Quake Christchurch*. July 2011. Report prepared for Canterbury Earthquake Recovery Authority. Older people are mentioned among the groups in need of support, but no detail is included.

¹⁹⁰ Bidwell, S. (March, 2011). *Long term planning for recovery after disasters: Ensuring health in all policies (HiAP). Social cohesion and resilience*. Information Sheets 7 and 8.

¹⁹¹ Miriam Hughes, Massey University, Wellington, personal communication.

enthusiasm¹⁹². There are no formal structures and no practice manuals. Each group sets up what is best for them, giving the ability to be flexible. The local coordinators are mainly women of all ages and retired or semi-retired people. Each group is encouraged to identify people most at risk in an emergency. It is a challenge to get the message about preparedness through to the general population, despite resources being put into “Get Thru” and similar programmes.

The challenge is to increase the coverage of Neighbourhood Support throughout the country in urban and rural areas. This must be adequately resourced, but managed in a way which retains the groups’ autonomy, flexibility and ability to respond as “good neighbours”.

Communities and Neighbours (CAN)¹⁹³ is a concept based on neighbourhoods, which has the potential not only to provide support for older people, but also to build on the resources and resilience of active older people, both in disaster and normal situations. According to Eleanor Bodger of Eldernet, one of the promoters of CAN, who has been developing the concept for some years¹⁹⁴, this initiative:

...will reinvigorate neighbourhoods and streets to the extent that mutual support will occur in a natural way. People won't see themselves as “volunteers”. Their neighbourly assistance will just be “what happens in a neighbourhood” and it will be effective because it is well planned and the process carefully facilitated.

The purpose of CAN is “to improve the health and wellbeing of older people by facilitating and strengthening neighbourliness and connectedness to local community” through the reintroduction of the “friendly supportive” neighbour. This will be done by:

...integrating communities in a way that fits with modern living - i.e. not winding back the clock to how things were in the past and not expecting too much of the participants. We believe that if CAN is successful it will work for the whole of the community not just older people. If people are known to one another, then in a potential crisis they will be better able to manage locally.

The concept of CAN draws strongly on the values and ethics of the community development approach, emphasising self help and local action, in this case empowering communities in their own recovery. Reciprocity among neighbours will build a sense of inclusion, bringing the psychological benefits of being a contributing member of the community. The aim is to avoid reliance on the service delivery model by asking people what they can do to help in their communities.

A diverse Steering Group has been formed, with representation from the Hornby Presbyterian Church, Christchurch City Council and Presbyterian Support, as well as Eldernet, to develop a model and process for CAN. There is a clear link with the Neighbourhood Support Group movement, to which CAN could be linked. The group requires funding for facilitators, but has developed job descriptions and training approaches. The facilitators will become local coordinators, assessing needs and managing referrals. They will co-opt neighbours who could support older people, make introductions and develop networks. Despite the rhetoric of community action and capacity building, many traditional funders have not been forthcoming, although the CAN group is optimistic of support¹⁹⁵.

Collins, Glavovic, Johal and Johnston (2011), provide examples of how community engagement could be fostered in their post-disaster New Zealand case studies. They conclude that many people embrace opportunities to build and restore their communities. Resources and support provided in a flexible way to communities can enable them to develop processes and systems to respond to and

¹⁹² David Wilkinson, personal communication.

¹⁹³ Communities and Neighbours (CAN). (27 April 2012) Draft core document,.

¹⁹⁴ Eleanor Bodger, Eldernet, personal communication.

¹⁹⁵ CAN group meeting: Blair Stirling, Presbyterian Minister, Donna Ellen, Partnership Health Canterbury. Eleanor Bodger, Eldernet, personal communication.

contribute to recovery processes. But it is common for government officials to work from a client delivery model – assuming that people need to be helped – trying to “do recovery” for communities. This leads to disempowerment, perpetuating a disabling environment and taking away people’s freedom of voice and influence. The more people are informed and involved in decision-making processes and feel valued and contribute in meaningful ways, the better their recovery and the recovery of their communities. This did not happen in Darfield in the early stages after the September 2010, earthquake, leading to frustration. On the other hand, it may be unrealistic to expect communities to participate in complex decision-making and action in times of stress. The aim should be to achieve a balance in which communities can be actively involved as well as receiving support. This type of balance was illustrated in the model of Civil Defence Emergency Management (CDEM) coordinating immediate response to a disaster and then “handing back” to NGOs and communities for the recovery phase

Using neighbourhoods and communities as the basis for recovery and ongoing support is recognised as a valuable strategy by the Ministry of Social Development and in the literature (Gluckman 2011, Jacobs and Williams 2011). Studies on community resilience, arising from the Canterbury post-quake experience also stress the value of connectedness at the local level – neighbours knowing each other and offering helpful, informal support¹⁹⁶. An example of public sector attempts to empower the community in its own recovery has been the development and implementation of workshops for frontline support workers, social workers, community leaders and NGO managers, initiated and funded by MSD as part of the Canterbury Earthquake Psychosocial Support Response (Britt et al., 2011). These workshops provided training for volunteers and paid staff of organisations delivering post-earthquake support.

Preoccupation with response and recovery, however, leaves little time or energy to collect and analyse empirical evidence to evaluate the effectiveness of what agencies, in whatever sector, are doing (Mooney et al., 2011). The lack of documentation available to the writers of this report is a reflection of this. In order that lessons from the Canterbury experience are built upon, it is vital that ongoing monitoring and evaluation of the recovery process is resourced. This applies not only to formal agencies and academic research. Community centres can collect information on the effectiveness of interventions and the ongoing need for them. An example of an initiative which calls for evaluation is the phenomenon of the Student Army. This was mobilised after the major earthquakes using social networking sites and provided both practical and psycho-social assistance to many Cantabrians, especially older people, as described in Part 1. Was the Student Army successful because it did not operate through formal channels and was not restricted by best practice manuals, over-zealous privacy concerns and risk management? How can such initiatives be celebrated, harnessed and applied elsewhere, without risking their spontaneity? In an ageing population the potential of such intergenerational programmes is immense.

A means, if somewhat belated, of monitoring the recovery process in Canterbury is CERA’s Wellbeing Survey¹⁹⁷. Currently, Nielsen is surveying 500 greater Christchurch residents aged 18 and over, randomly selected from the Electoral Roll. The second stage of the Wellbeing Survey is an online version which will give all residents the opportunity to provide insights and feedback on a self-selected basis. This research will help CERA and other agencies working on recovery to better understand people’s perceptions and experiences and will help to identify where more support, assistance and resources may be needed. Results will be available on the CERA website in early 2013¹⁹⁸.

¹⁹⁶ This is supported by the findings of the research project, *Building Community Resilience; Learning from the Canterbury earthquake response*, by Louise Thornley and Jude Ball, personal communication.

¹⁹⁷ CERA (15 October, 2012). *Wellbeing survey goes online*. Press release.

¹⁹⁸ Matthew Walters, CERA, personal communication

Public sector responses

Central government agencies operating in Canterbury were faced with the twin challenges of keeping their usual services operating (such as processing benefits and payments) as well as responding to earthquake-related needs¹⁹⁹. Activating the regional welfare advisory group (Ministry of Social Development, Civil Defence), territorial authority response and recovery groups and the DHB's Vulnerable Persons Group were all established procedures (in the latter case linked to planning for a possible influenza epidemic). Once established, CERA took over MSD work on recovery. The value of having one agency – in this case CERA – to promote integrated and coordinated responses was pointed out by Bidwell²⁰⁰ and also Mooney et al. (2011).

Civil Defence has an important role in coordinating emergency responses through the Canterbury Civil Defence Emergency Management (CDEM) Coordinating Executive Group (CEG), which includes police, fire service, DHB, central and local government representatives²⁰¹. After the 22nd February 2011 earthquake the Christchurch CDEM Group initiated their Emergency Operation Centre (EOC) to coordinate the response from government agencies, emergency services, lifeline utilities and welfare agencies. The Christchurch City Council provided some staff for this centre. The Canterbury District Health Board had their own EOC to coordinate a response from the health sector.

The fact that many designated CD sector posts were not activated after the earthquakes gave the impression that CD was not providing support in suburban areas, although they were very much in evidence in the CBD. The role of sector posts needed to be clarified. This point was raised especially in relation to the needs of aged care facilities (Carswell, 2012, p. 30). A review of the CDEM response to the February earthquake was released in October 2012²⁰².

Carswell's research highlighted the problems experienced by facilities - rest homes, hospital and dementia units and retirement villages- operating within the Red Zone cordons. Home Support workers also reported having difficulties moving in and out of cordoned areas to look after their clients. In any future emergencies, those in charge of operating cordons require a better understanding of who is living inside the cordon and what their needs are.

Welfare responses were part of the Coordinated Incident Management Structure (CIMS) which is used by all the Civil Defence sector agencies to enable better coordination and communication. Welfare is defined by CD as "the response of the CDEM sector and their welfare partner agencies will deliver to those people (individuals, families/whanau and communities) directly affected by an emergency. This includes provision of food, shelter, clothing, financial assistance, psycho-social (psychological and social) support and extends throughout response and recovery". The Civil

¹⁹⁹ Ministry of Social Development. (2011). *Annual Report 2010/2011*. Wellington: Ministry of Social Development.

²⁰⁰ Bidwell (March 2011) examined lessons from 1931 Napier earthquake in *Long term planning for recovery after disasters: Ensuring health in all policies (HiAP). Introduction, Recovery phases and Lessons from Napier Earthquake of 1931*. Information Sheet 2. She notes that, at that time government owned most of the public services and society was less dependent on technology. The Napier earthquake was the catalyst for the establishment of building codes, earthquake insurance and Civil Defence, none of which had existed previously. Strengths of the Napier response included the rapid formation of a Citizens' Committee and public consultation about recovery efforts and building style.

²⁰¹ The responsibilities of Civil Defence are set out in the Civil Defence Emergency Management (CDEM) Act 2002. There is a national CDEM Plan and regional CDEM Plans which provide principles and guidelines for the Civil Defence sector agencies and organisations to follow.

²⁰² McLean, I. et al. (June 29, 2012) *Review of the Civil Defence Emergency Management Response to the 22 February Christchurch Earthquake*. Ministry of Civil Defence & Emergency Management http://www.civildefence.govt.nz/memwebsite.nsf/wpg_URL/For-the-CDEM-Sector-Publications-Review-of-the-Civil-Defence-Emergency-Management-Response-to-the-22-February-Christchurch-Earthquake?OpenDocument

Defence emergency response to the aged care sector (residential and home support services) was primarily via the Welfare Section.

Carswell (2012) points out that civil defence management incorporates the principle of subsidiarity, that the crisis or emergency is managed by agencies as close to the community affected as possible. The examples cited in this report illustrate ways of identifying and assisting vulnerable older people in the community. “These initiatives demonstrated innovative partnerships and coordination between community, NGOs, government and private sector. A consideration for government agencies when planning emergency response is how to be flexible enough to allow innovative partnerships to occur, particularly with volunteer groups.” The use of local neighbourhoods as a first response mechanism, promoted in the community development approach outlined above, aligns with the principle of subsidiarity.

The Vulnerable Persons Team liaised primarily with the CDHB EOC but also had links with Civil Defence and the Christchurch City EOC. The Vulnerable Persons team role included co-ordination and liaison between CDHB funded and contracted services, government and community services (e.g. CCC, ACC, Salvation Army etc) to facilitate the response to aged care facilities and vulnerable persons in the community. The new CDHB emergency plans have now formally added the Vulnerable Persons Team to their EOC plan.

As with community groups, public sector agencies needed to work together in the earthquake response period and to avoid the common “silo” mentality. The declaration of states of emergency assisted with information-sharing. Cooperation was facilitated by the Christchurch Social Policy Inter-agency network of agency heads, which has existed for 20 years and by comparative stability in management staff.

The State Services Commission examined the experiences of public sector agencies in Christchurch as part of its Better Public Services programme²⁰³. Lessons learned include the use of co-location and secondments (which became a necessity for some after the earthquakes) and bottom-up innovation (giving people on the ground permission “to do what it takes”). The Earthquake Support Coordination Service is cited as a case study. This delivered support to households and individuals through the 0800 line, web-site, its team of coordinators and CETAS (see Part 2). Government agencies (MSD, Inland Revenue, Te Puni Kokiri and CERA) worked successfully with local government social service, health, Maori and Pacific organisations.

Regular meetings between NGOs and public sector agencies have been crucial for coordination and cooperation. Canterbury, possibly because the main urban area is compact, already had good public-voluntary sector networks. The value of the Earthquake Support Coordinators network was noted in Part 2. Designated coordinators to work with older people were appointed from Age Concern, Presbyterian Support and Senior Services²⁰⁴. Another relevant example is Eldercare Canterbury, a collective of people representing organisations, service providers and consumers who have an interest in improving health services for the older people of Canterbury²⁰⁵. It is a successful example of integration and coordination between the various stakeholders. ECC initiatives include:

²⁰³ Helen Walker, State Services Commission, personal communication.

²⁰⁴ Community workers expressed concern that funding for the Earthquake Support Coordination Service was to be cut in 2013, although earthquake-related issues were likely to continue for several years.

²⁰⁵ Elder Care Canterbury (ECC) is community-based and community-driven and enables active involvement of older people. ECC was established in 1997, when Pegasus Health and geriatricians expressed concerns about the provision of health services for older people in Canterbury. It has since grown to include groups and individuals from across the health sector and the community. From April 2006, ECC has been administered by Presbyterian Support Upper South Island (PSUSI) under contract to Canterbury District Health Board's Planning and Funding Department, which previously administered ECC internally. See <https://uppersouthisland.ps.org.nz/services/ECC>

- The Consumer Group, which monitors the health systems as they affect older consumers. It feeds back issues to CDHB and other agencies as appropriate.
- Provider Forums, where information from government agencies, the Christchurch City Council and CDHB is shared. Areas where collaboration will improve services and access to these services are identified and worked on.
- Forums with a rural focus are held in North Canterbury (Rangiora) and Mid Canterbury (Ashburton).
- Bi-annual Hui and Fono are organised with CDHB to ensure issues affecting older Maori and Pacific people are heard.
- The Older Persons Refugee and Migrant Health Issues Group, which was established in 2007.

Eldercare Canterbury provides an excellent model for other regions. It is now being developed in Otago, with the help of Age Concern.

New initiatives, such as MSD's phone campaigns were valuable to maintain contact with older people and to direct assistance to where it was needed. These procedures improved over time, but a formal evaluation of what worked well and what did not is needed. As with the health services databases, mentioned above, it is important that information should be regularly updated, privacy protected, clearly defining what data is to be collected, why and how, and what action is to be taken. As far as the public is concerned, however, the push for "e-government" must take into account variations in access to and competence in computer-based systems. Older people especially may require help with on-line forms. Libraries may be useful bases for public education in this area, including help with texting and cell-phone use.

Learnings for the Health Services

Several assessments have been made of how the health services coped after the Canterbury earthquakes and what can be learned from these experiences. In relation to older people, planning and preparedness must consider a range of needs and services:

- Acute admissions to hospital as a result of injury or sudden illness
- Immediate needs of rest home/geriatric hospital residents, including the need for evacuation
- Immediate and ongoing needs of frail older people living independently in community, including emergency housing
- Immediate and on-going care for dementia patients living in the community, including those who have to be relocated
- Respite care and support for carers of frail older people living in the community, including dementia patients
- Mental health services for older people, both short- and long-term
- Availability of workers with relevant experience to maintain care for older people in institutions and in the community (recognising the impacts of the earthquakes on health workers and their families).

Many of the learnings arising from the Canterbury earthquakes apply across the services, but others are more specific.

Preparedness and Planning

- Geriatricians and workers in older people's health services need to be involved in disaster management planning; each area should have a disaster plan that focuses on older people.
- GPs, the health professionals most likely to be in touch with older people, and PHOs should be an important element in disaster planning.
- The growing nationwide use of the InterRAI assessment tool allows health information to be accessed externally on a national basis.
- Age care facilities and retirement villages should have emergency plans and ensure that residents know what to do and that there are enough staff rostered on at all times to cope in the event of a disaster. These facilities, as well as home support services should explore how they can work together to deal with the aftermaths of disasters, to maintain services for older people.
- Emergency transfers need to be planned for, with systems for tracking of patients/residents.
- The Canterbury experience showed the value of establishing a Vulnerable Persons Group as soon as possible.
- Options for long-term follow-up of physical and mental health needs should be planned for, as well as immediate responses.

Information and privacy

- A central emergency communications plan covering whole health system would help to coordinate activity, ensure good information dissemination and avoid conflicting messages.
- All care services for older people need to maintain comprehensive emergency contact details for their users, including next of kin contacts at home and work, locally and nationally. These need to be kept in multiple locations, in electronic and hard copy and updated regularly.
- A system is required for people receiving community-based services in the community (home support, district nurse), so that staff know if they have left home and where they have gone.
- Privacy issues need to be worked through: sharing of contact data, with appropriate safeguards, would help to make such services more efficient.
- Residents need to be updated by regular meetings in emergency situations.
- Clear and up-to-date information should be available to the public on which health services are available and where to have their enquiries deal with. This should include information on evacuations from hospitals and rest homes.

Evacuation and transfer²⁰⁶

- Inform relatives at the time of admission about processes for contacting them if there is an emergency. Residents and their families should be informed about evacuation and destinations as soon as possible. Having friends and family in the receiving centres was beneficial, as was the support of receiving communities. These contacts should be considered before the moves and people informed.
- Prepare lists of possessions which residents can take with them in case of evacuation.
- When patients are transferred, staff should be sent with them, especially when delays may be experienced or arrange for receiving facility staff to collect evacuees. The latter may be a better option where staff from facilities in the disaster area need to deal with their own issues.
- Match type of transport to the needs of residents and make sure that this is understood by transport organisers.
- Wrist bands were found to work best for resident identification, especially for people with cognitive disabilities.
- Minimise waiting time for transport; night time departures and arrivals should be avoided, to reduce stress on evacuees.

²⁰⁶ Further details are available in Sue Carswell's reports and in CDHB reports, including *The Impact of Mass Evacuation of Older People from Residential Care Facilities following the 22 February 2011 Christchurch Earthquake*.

- Spouses and friends should be kept together.
- Information about medication and preferably personalised pre-packed medications should accompany evacuees. Rather than sending information transfer sheets with evacuees, send the resident's whole folder and keep spare copies of information which will help to organise placements.

Mutual aid between aged care facilities and home support providers developed in the aftermath of the earthquakes. They drew agencies together in the face of urgent need and led to the sharing of offices, facilities and resources as well as case coordination. Mutual aid was especially valuable for small operators who were not part of national groups. These initiatives could be evaluated to bring out learnings for application elsewhere.

Residential care

The experience of the earthquakes led to immediate improvements in the aged care sector relating to emergency planning and preparedness (Carswell 2011). Quite a few facilities had reviewed their plans after September 4, putting in new systems, equipment and supplies and further enhancements were applied after February. Providers operating on a national scale had many advantages in terms of access to staff and equipment. They could arrange for structural engineers and facilitate repairs. Mutual aid to accommodate evacuees, to provide laundry and food services also extended to independent facilities.

Carswell (2011) lists practical advice for residential care. In addition to those listed above, these emphasise the need for facilities to plan for self-sufficiency for at least a week; to maintain hygiene standards and guard against infections; for management to remain calm, accessible and supportive to staff, appreciating their need for relief and time to manage their own affairs. In the interests of the residents it is important to maintain basic routines and normal meals, plus warmth, comfort and reassurance. For many older people in care the impact of the earthquakes was more emotional than physical.

The lessons from the earthquake experience will influence future provision of residential care and collaboration between the CDHB and providers. New Zealand Aged Care Association chief executive, Martin Taylor, said "Christchurch is a test case for the future. The solutions we find in Canterbury will be instrumental in addressing future issues for the rest of the country."

Mental Health

Comprehensive information on the outcomes of the Canterbury earthquakes for older people's mental health is not yet available. There were certainly occasions where existing mental health and chronic diseases were exacerbated. There was also widespread sub-clinical need, illustrated by Annear's findings on self-reported anxiety and depression among older people.

Matthew Croucher²⁰⁷ concludes that this level of need is best dealt with through psycho-social support, good management and community resources; in other words, it is social capital-related. Bidwell (2011), reviewing the health impacts of disasters generally, suggests that most mental health problems are self-limiting and that belief in self-efficacy and coping skills are the preferred option to avoiding post-traumatic disorders, rather than professional interventions. Bidwell also found that domestic violence, substance abuse and suicide rates are likely to rise especially among displaced populations.

This suggests that the strengthening of community networks and support systems, as suggested above, will be effective in ameliorating low-level mental ill-health among older people in disaster situations. Crisis intervention training for paraprofessionals who work with older people, helping survivors to regain a sense of control and normalcy in their lives, practical information about resources and

²⁰⁷ Matthew Croucher, CDHB, personal communication.

services, monitoring progress, talking through situations, are recommended initiatives. This will also allow formal mental health services to concentrate on cases with higher level needs²⁰⁸.

The Canterbury branch of the Alzheimer's Society reported what they had learned from the earthquake experience, with respect to dementia sufferers²⁰⁹:

- Previously they had only paper based notes. They have developed a web-based data system, which can be accessed from anywhere.
- While recognising the value of volunteers, they need coordination and management to set up support groups as quickly as possible. Volunteers could also provide transport for people no longer confident to drive.
- Older people who are of most concern need to be identified, such as those living alone, with no family and socially isolated.
- Agencies working with vulnerable people need to know where they fit into a community plan.

The Society calls for better understanding of dementia, less stigmatisation and more support for carers. Familiar surroundings and routine are important for older people with dementia so ideally they should remain in the community, although options for this may be limited. Caring for dementia sufferers differs from caring for other older people with other types of disability in terms of the demand for attention at night, the emotional and psychological impact on carers and the potential for them to become socially isolated.

Psychosocial needs in the recovery period

Part 2 illustrated the longer term impacts of the earthquakes in psycho-social terms. Many of these apply to people of all ages. Several articles in the New Zealand Journal of Psychology list these learnings, summarised below (Black and McLean, 2011; Mooney et al., 2011; Parsonson and Castelfranc-Allen, 2011).

Learnings

- People need to know that their concerns are being taken notice of; that they are valued; to have voice and influence. Top-down, command and control approaches will disempower people.
- Authorities need to create meaningful opportunities for communities to determine their own recovery destiny; to assist people and communities to regain a sense of control, to return to effective functioning and make sense of their experiences. This means that resources and processes must be flexible. Meetings called to discuss recovery must allow meaningful feedback and participation.
- Setting short-term, realistic and manageable goals will help to give people a sense of control over their environment.
- A post disaster reality will be a new and changed reality, which people must adapt to. Messages to the public should recognise that a full return to the previous situation may not be possible.
- Promises need to be kept. Anger, disappointment and disaffection may lead to disapproval of the efforts of authorities and belief that no one is listening.
- Uneven distribution of resources before a disaster, coupled with disaster impacts, community fragmentation, loss of normal support networks, and displacement can increase vulnerability and encourage learned helplessness, thus delaying recovery and reducing resilience.
- People who have been displaced have special needs for information and support.

²⁰⁸ In October 2012 a free seminar series was advertised - Networks of Support for Māori Mental Health: The response and recovery of Tangata Whaiora through the Ōtautahi earthquakes. These are presented by the Mental Health Education and Resource Centre in collaboration with Lincoln University and Te Puni Kokiri.

²⁰⁹ Darral Campbell, Alzheimers Society, personal communication.

- Community recovery and regeneration encompasses cultural, psychological, social, economic and physical (including housing, infrastructure and physical health) dimensions. It will need to accommodate spiritual and cultural expectations, therefore rituals and ceremonies.
- Resources need to be allocated to monitor and evaluate the recovery process and to assess which factors can positively influence community resilience. A process is needed to ensure that empirical evidence is used to inform future preparedness.
- Information on the psycho-social impacts of disasters could be a valuable part of professional training in health, psychological services and education.

Housing

Numerous housing issues arise in post-disaster situations²¹⁰. Initially, there are issues of displacement, temporary housing, social dislocation, access to services, decisions whether to return and flow on effects in other communities as new residents arrive. Further down the track, housing shortages, house price and rent rises can be expected, to the disadvantage of low income people. Many of these issues have been illustrated in Parts 1 and 2, referring to the Canterbury situation²¹¹. For older people, especially those who are displaced at some stage in the recovery process, housing is a central concern, but often one of several issues they have to contend with.

In summary:

- Older people need assistance to understand what is happening, to feel connected and to be able to navigate through the processes of repairing and/or rebuilding houses, selling and buying a new house and how to negotiate this in an economical way. In doing this they are competing with the general population.
- The financial situation of older people differs from younger generations as they generally live on low incomes, have few opportunities to increase their incomes and will be disadvantaged when seeking loans and mortgages.
- Older people who are not able to re-establish themselves as homeowners must adjust to renting, dealing with landlords, etc.
- There is not enough adequate, affordable housing for older people to move into if they have to relocate. Part 2 showed cases where people in their 80s are taking out mortgages and paying them off from their superannuation and/or running down their savings and funeral funds.
- Many older people would like to take the opportunity to move into smaller, more manageable and accessible houses, but this may be difficult because of availability and insurance requirements, which may insist on replacing like with like.
- The location of available housing is often not appropriate for older people who need to be close to services, such as shops, chemist, and their doctor.
- Although some priority has been given to older people for repairing winter heating, there are reports of some remaining in cold houses, which increases their pre-existing vulnerability.

Housing initiatives

As outlined in Part 2, the Canterbury earthquakes and the subsequent red-zoning of residential areas have given rise to a demand for new houses and sections at affordable prices. The government

²¹⁰ Bidwell, S. (March, 2011). *Long term planning for recovery after disasters: Ensuring health in all policies (HiAP). Housing Issues*. Information Sheet 5.

²¹¹ Giovanazzi et al (2012) note that a four-step approach was observed following the Canterbury earthquakes: 1) welfare centres; 2) campervans; 3) medium-term temporary housing; and 4) repair/reconstruction of permanent housing. Displaced persons following Christchurch earthquake did not seem to “accept” short-term solution (campervans) and to some extent the medium-term one (e.g. temporary housing at Linwood Park). “People/communities have shown a great adaptive capacity and resilience choosing either to share accommodation with other families or to stay in their damaged house, adapting to the lack/reduced availability of lifeline services”.

payouts for most Red Zone properties are well below the market price of new sections. The Canterbury Co-operative Land Trust is facilitating the development of sections in the \$90,000-\$120,000 range (\$60,000 for townhouses) for Red Zone homeowners²¹². The Trust will work with CERA and local councils to identify appropriate land to be acquired.

Real Estate Institute of New Zealand Canterbury spokesman Tony McPherson said the proposal could help homeowners whose red-zoned properties were smaller than most currently on the market, which would include older people. He said the co-operative approach was likely to save money for participants as it reduced risk for developers.

Land which has become available as a result of demolitions offers an opportunity for housing developments specially designed for older people. These could be undertaken by social housing providers, groups such as Abbeyfield²¹³ and voluntary agencies (possibly on sites previously occupied by churches or church buildings). The Social Housing Unit of the Department of Building and Housing has expressed some interest in such developments, which could include rental and ownership units as well as innovative types of tenure²¹⁴. The Methodist Mission is currently a large social housing provider for older people (along with residential age care). The Mission is looking at expanding this in the future, possibly using church land²¹⁵.

There is a great opportunity in the rebuild of Canterbury housing to promote universal design, which is in its infancy in New Zealand, but which is a necessity if housing is to meet the needs of an ageing population²¹⁶:

Universal Design is a worldwide movement that is based on the idea that all environments and products should be usable by all people, regardless of their ages, sizes, or abilities. Because this movement applies to everyone, the concept of Universal Design is known around the world as “design for all,” “inclusive design,” and “life-span design.”

The concept of universal design is endorsed in the City Council’s Healthy Christchurch document²¹⁷.

Retirement Villages

Earthquake damage has brought to the fore shortcoming in the regulations surrounding retirement villages, as pointed out in Part 1. The result is likely to be changes to the Code of Practice for Retirement Villages and to Occupation Right Agreements (ORA). As Carswell (2012) points out, the forthcoming changes should address the issues raised by village residents in Canterbury. While any changes may not be enacted retrospectively, they will assist residents in the future. The experience has highlighted the need for prospective residents to examine and understand the terms of ORAs so they know what would happen in the event of permanent evacuation. Retirement village operators have also been alerted to the need for planning in the event of future disasters.

²¹² Sachdeva, S. (December 5, 2011). Trust plans to reduce section costs. *The Press*.

²¹³ Even before the earthquakes, Abbeyfield was evaluating a range of possible options to develop an Abbeyfield house, or possibly houses, in Christchurch. Abbeyfield has formed a steering committee comprised of interested local volunteers. The committee has joined with other not-for-profit community housing providers who are negotiating with the local council to jointly develop a community housing project that will include an Abbeyfield house for 11 older people in Hornby. Fenn Shaw, personal communication.

²¹⁴ Michael Pead, Director, Social Housing Unit (March, 2012). “*Investing in affordable housing for older people – working with the SHU to make a difference.*” Presentation at the Council of Christian Social Services Conference, Wellington.

²¹⁵ Mary Richardson, Executive Director Methodist Mission, personal communication.

²¹⁶ Universal Design Renovations. *Universal Design Definition*.

<http://www.universaldesignrenovations.com/pages/Universal-Design-Definition.html>

Age Concern. *Lifetime Design*. <http://www.ageconcern.org.nz/my-home/home-choices/lifetime-design>

²¹⁷ http://www.healthychristchurch.org.nz/media/33274/agefriendlycity_111125.pdf

Lessons for future planning²¹⁸

Summary of learnings

- Pre-disaster planning is vital to ensure appropriate and timely responses and to avoid short-term decisions which may cause problems. Pre-planning in preparation for feared influenza and SARS epidemics was clearly useful in Canterbury, especially in the health and aged care sectors.
- The Canterbury experience emphasises the value of agencies and sectors working together. This report has presented many examples of how this worked well in support of older people and with their participation.
- The strengths of the voluntary sector and volunteer action include flexibility and adaptability which should be recognised and not hampered by official agencies.
- Rebuilding also offers opportunities to create a more equitable community, recognising that people are not equally at risk from disasters. Older people may have poorer health and less physical ability; people in rental accommodation may have less control over their surroundings and less invested in community
- Work is needed to find out how best to compile and maintain a register of vulnerable people.
- Official agencies should anticipate and recognise activism by residents and work with it. Raising community expectations which cannot be fulfilled and long delays in action and implementation lead to frustration and ultimately delay psycho-social recovery as well as impacting unfavourably on physical and mental health.
- The loss of meeting places has had a serious impact on social wellbeing, especially for older Cantabrians. In rebuilding the city, multi-purpose public buildings could be encouraged (e.g. many old churches were destroyed and could be replaced with buildings suitable for community activities as well as worship).
- Recognising the difficulty of measuring resilience, social cohesion and social capital, indicators of recovery need to be identified and monitored to assist future planning (such as the Christchurch City Council's Canterbury Welfare Index). These should include indicators of the wellbeing of older people. This work is ongoing.

The rebuilding of Christchurch is an opportunity to promote Age Friendly cities²¹⁹, as well as universal design in housing and public facilities, recognising the needs of an ageing population. This opportunity is recognised by the Christchurch City Council²²⁰.

The WHO's Checklist of Essential Features of an Age-friendly City can be used to assess the strengths and weakness of a city's ability to cater to the needs of older people. It provides a list of features that would help make urban environments safer and more attractive. Although the Checklist highlights attributes that would appeal to older people (e.g. non-slip pavements, clear signage, good outdoor lighting, etc), most of the features aim to make cities good places for people in general (e.g. ensuring public transport options are affordable and reliable, there is a variety of housing options, a range of affordable events and activities are available).

Michael Annear's work includes many suggestions of features which could support active ageing²²¹, which include:

²¹⁸ Bidwell, S. (April, 2011). Long term planning for recovery after disasters: Ensuring health in all policies (HiAP). Community and Public Health (CPH) for Healthy Christchurch. Version 1, 11, Information Sheets.

²¹⁹ The World Health Organisation has developed an Age Friendly Cities Framework that provides a useful checklist in relation to: outdoor spaces and buildings; transportation; housing; social participation; respect and social inclusion; civic participation and employment; communication and information; and community and health services. http://www.who.int/ageing/age_friendly_cities/en/index.html and http://www.who.int/ageing/publications/Age_friendly_cities_checklist.pdf.

²²⁰ Christchurch City Council (2011) *Health Profile Te Oranga- Participation in Society*.

²²¹ Michael Annear (May 18, 2012). *Active Ageing in Christchurch Study*. Recommendations in support of active ageing. Community Symposium presentation.

- Footpaths safe for pedestrians and mobility scooters
- Affordable public transport to accessible destinations
- Parks which encourage intergenerational interaction (e.g. seats near playgrounds)
- Accessible public amenities – toilets, seating
- Navigable, well sign-posted and unique urban areas
- Well-designed shopping centres.

A Disability Action Plan was discussed in a Cabinet paper of July 2011²²². It proposed a range of actions “to ensure the rebuild of Canterbury achieves better accessibility for disabled and older people, a more liveable city for all and more modern, inclusive and self-directed supports and services for disabled people.” The plan proposed a “whole of life” and “person-centred” approach to building and street design, incorporating Lifetime Design. The Christchurch City Council is responsible for the Central City Recovery Plan, which includes urban design, transport and buildings in the central city. 41 Section 19(2)d of the Canterbury Earthquake Recovery Act 2011 states that the Minister for Earthquake Recovery must “have regard to” the New Zealand Disability Strategy before approving recovery plans for the Canterbury earthquake.

Older people as a resource

Reports of activities in Canterbury in the immediate aftermath of the earthquakes, and in the recovery period which is still on-going, illustrate the contribution which older people have made. While it must be recognised and planned for, the vulnerability of older people should not be seen as their main characteristic. Stereotyping them as frail and needy is not only wrong but can also lead to undervaluing of older people as a resource in any disaster situation.

Michael Annear’s survey data suggest that a high level of resilience was a characteristic of many older residents of Christchurch. Many turned their attention to meeting the material and psychological needs of family, friends and neighbours, drawing on psychological resources developed across the life course. Many used the earthquakes as a “learning experience” and put emergency planning strategies into action. They displayed a range of successful post-quake, coping strategies and were able to maintain some normal routines, even when they were experiencing hurdles associated with the earthquake and the on-going and unpredictable aftershocks.

Christchurch City Council documents, including the Healthy Christchurch report and the Ageing Together Policy, while identifying post-quake challenges, call for the strengths, wisdom and knowledge of older adults to be remembered, affirming respect for people as they age and upholding their rights to independence, participation, and access to opportunities and resources.²²³

John Patterson, at the time of the older people’s forum in April 2012, called for dispelling myths about older people:

Younger people will be thinking “those oldies at their forum will be having a good chat over a cup of tea but they needn't worry, we will look after them”. Look around this room. We have an ex-Mayor of Christchurch, an ex-Dean of the cathedral, an ex-cabinet minister. We have ex-builders, plumbers, school teachers, nurses, engineers, accountants, etc. We have an enormous amount of skills, talents, expertise, experience, know-how and wisdom. It is high

²²² Disability Action Plan: (Cabinet paper, July 2011) *Including disabled people in the Canterbury recovery* <http://www.odi.govt.nz/what-we-do/ministerial-committee-on-disability-issues/disability-action-plan/cabinet-paper-july-2011-disability-action-plan.html>.

²²³ http://www.healthychristchurch.org.nz/media/33274/agefriendlycity_111125.pdf
<http://www.ccc.govt.nz/thecouncil/policiesreportsstrategies/policies/groups/community/ageingtogether.aspx#jumpink1>

time that the powers that be and leaders of this city recognised this. They should be looking for ways to use this huge and growing resource.

As well as having a role to play in the wider recovery, older people can act within the 65 plus age group – a cohort which covers more than one generation; the “young old” can assist the “old-old”. The latter are more likely to exhibit vulnerability and the need for help and do not have “time on their side”. The housing, financial and legal processes which face people in Canterbury are difficult for everyone, but especially challenging for the old.

McColl and Burkle (2012) quote an unscientific newspaper poll of 15,089 voters taken in June 2011. At that time, 19% said they were planning to leave Christchurch and 26% said they would leave if they could but were tied by property or a job. A further 3% were prepared to walk away from their properties. This left 37% who did not want to leave the city and 15% did not know what to do. Statistics New Zealand estimates that the population of Christchurch decreased by 8,900 people in the year to June 2011 due to net migration loss²²⁴. No accurate information is yet available on the long-term extent of the population exodus. Given that Christchurch already had the oldest population among the main centres and that older people generally prefer to remain where they are, it is possible that the earthquakes will, in the long run, contribute to the ageing of the Christchurch population. This makes it even more important to ensure that the impacts of the earthquakes on older people are recognised, along with their potential to contribute in this and in other disaster situations.

²²⁴ Statistics New Zealand (25 October, 2011) *Christchurch population decreases after earthquakes*. Press release.

Appendices

Appendix 1: People consulted

Ann Marie Bailey, Ministry of Health, Wellington

Anne Foley, Ministry of Health, Wellington

Annette Harris, President, Age Concern Canterbury

Betty Chapman, Community Co-ordinator, Wainoni Avonside Community Services Trust

Blair Stirling, Presbyterian Minister, Director of Te Whare a Whero, Hornby

Brian Parker, Communications Manager CanCERN

Bruce Coffey, Christchurch Earthquake Recovery Manager, The Salvation Army

Carol Moffat, Fletchers

Carolyn Gallagher, Unit Manager, Community Support, Christchurch City Council

Chris Greengrass, Earthquake Support Coordinator, Kaiapoi

Claire Heppenstall Canterbury District Health Board, Medical Registrar, Older Persons Health, Princess Margaret Hospital, Christchurch

Colleen Mills, University of Canterbury

Darral Campbell, Manager, Alzheimers Canterbury

Dave Wilkinson, Neighbourhood Support Canterbury

David Johnston Associate Professor, Director of the Joint Centre for Disaster Research School of Psychology Wellington Campus

David Griffiths, Ministry of Social Development

Denise Langrish, Neighbourhood Support Co-ordinator, Timaru

Dianne Smith, Presbyterian Support and Home Share

Donna Ellen, Partnership Health Canterbury

Eleanor Bodger, CAN and Eldernet

Gail Payne, Metropolitan Community Advisor Older Adults, Christchurch City Council

Gill Coe, Senior Project Office, Partnership Health

Ian Brownie, President, Greypower, Christchurch

Jane Morgan, CERA

Jared Thomas, Opus

Jennie Gill, Presbyterian Support Social Worker

Jessica Petersen University of Canterbury

John Patterson, Christchurch

John Collyns, Executive Director, Retirement Villages Association

Jude Ball, Quigley and Watts

Judith Bruce, Eldercare Canterbury and Burwood day care centre

Karolin Potter, Human Rights Commission

Kay Vessey, Presbyterian Support, North Canterbury, Minibus Trust –Rangiora

Kerry Howley, Age Concern Canterbury

Kevin Bennet, City Housing and Community Facilities Manager, Christchurch City Council

Kim Wright, GNS Science, Wellington

Linda Irvine, Healthcare NZ

Liz Baxendine, Christchurch

Liz Reese, Accredited Visitors Service, Canterbury

Louise Gibson, Commission for Financial Literacy and Retirement Income

Louise Thornley, Senior Research Associate, Quigley and Watts

Lucy D'Aeth, Community Resilience Manager, CERA

Lynne Gibbons, Age Concern Canterbury

Maria McEntyre, Ministry of Social Development

Matthew Croucher, CDHB, psychiatrist consultant and senior lecturer in old age mental health

Matthew Walters, Community Resilience Team Relationship Manager, CERA

Maureen Mooney, Research Officer, Joint Centre for Disaster Research, School of Psychology Massey University, Wellington

Michelle Mitchell, CERA, former regional MSD manager

Mike Annear, Ph.D. student, University of Otago, Christchurch

Miles Jackson, Grey Power North Canterbury and member of Grey Power national board

Miriam Hughes, Massey University, Wellington

Nicki Goss, Assessment and Related Services Manager, CETAS

Nicky Moore, Food Services Contract Manager, CDHB (Meals on Wheels)

Paul Whitinui, University of Canterbury

Phil Shaw, Community and Safety Manager, Christchurch City Council

Regan Jackson, Ministry of Social Development

Rosemary Du Plessis, Adjunct Associate Professor of Sociology, University of Canterbury.

Robyn Tuohy, Ph.D. Student, Massey University, Wellington

Sally Keeling, University of Otago, Christchurch

Sandra Kirikiri, National Manager Senior Services Delivery, Ministry of Social Development Head Office

Sandra James, Social Recovery Manager, Kaiapoi

Sarb Johal, Joint Centre for Disaster Research, School of Psychology Massey University, Wellington

Shona Van Zijll de Jong Auckland (formerly NIWA)

Siobhan Storey, Senior Policy Analyst, Strategy and Planning, Christchurch City Council

Stella Ward, CDHB

Stephen Phillips, Chief Executive, Age Concern Canterbury

Sue Carswell, Independent Research & Evaluation, Christchurch

Sue Missen, researcher and counsellor, Rangiora

Susan Gee, Canterbury District Health Board

Sue Waight, Recovery Coordination Manager, Social Work Team, Earthquake Support Team
The Salvation Army,

Tom McBrearty, CanCERN

Tracy Pirie, Strengthening Communities Coordinator, P2P Help Trust/Kaiapoi Baptist Church.

Valda Revely, Eldercare Canterbury and Presbyterian Support

Yvonne Palmer, Age Concern Canterbury

Appendix 2: Formal publications

- Aldrich, N. & Benson, W. (2008). Disaster Preparedness and the Chronic Disease Needs of Vulnerable Older Adults. *Public Health Research Practice and Policy*, 5(1), 1-7.
- Ardagh, M., Richardson, S., Robinson, V., Than, M., Gee, P., Henderson, S., Khodaverdi, L., McKie, J., Robertson, G., Schroeder, P. & Deely, J. (2012) The initial health-system response to the earthquake in Christchurch, New Zealand, in February, 2011. *Lancet* 379, 1-6.
- Atkins, S., Lewin, S., Smith, H., Engel, M., Fretheim, A., & Volmink, J. (2008). Conducting a meta-ethnography of qualitative literature: Lessons learnt. *BMC Medical Research Methodology*, 8(1), 21-31.
- Barrett, D., Secic, M. & Borowske, D. (2010). The Gatekeeper Program: proactive identification and case management of at-risk older adults prevents nursing home placement, saving healthcare dollars program evaluation. *Home Health Nurse*. 28(3), pp.191-197.
- Batt, J., Atherford, C. & Grant, N. (2011, October). Te Arawa Responds. *Kai Tiaki : Nursing New Zealand*, 17(9), 38-39.
- Black, J. & McLean, J. (2011). For better or for worse: How initial support provision adapted to needs. *New Zealand Journal of Psychology*. 40(4), pp.111-120.
- Britt, E. et al (2011). Promoting Recovery and Building Resilience for Individuals and Communities. *New Zealand Journal of Psychology*. 40(4), pp.76-78.
- Britten, N., Campbell, R., Pope, C., Donovan, J., Morgan, M., & Pill, R. (2002). Using meta ethnography to synthesise qualitative research: a worked example. *Journal of Health Services Research & Policy*, 7(4), 209-215.
- Carswell, S. (2011). *What we have learnt: Aged care provider learnings on responding to the February earthquake in Canterbury*. Commissioned by Eldernet with funding support from the Canterbury District Health Board.
- Carswell, S. (2012). *What we have learnt (Report 2): Aged care sector response to the Canterbury earthquakes – residents' perspectives and emergency assistance*. Commissioned by Eldernet with funding support from the Canterbury District Health Board.
- Chambers, R. & Henderson, R. (2011). An Overview of the Canterbury District Health Board (CDHB) Mental Health Service's Response to the 2010 - 2011 Canterbury Earthquakes. *New Zealand Journal of Psychology*. 40 (4), pp.70-75
- Collins, S., Glavovic, B., Johal, S. & Johnston, D. (2011). Community Engagement Post-Disaster: Case Studies of the 2006 Matata Debris Flow and 2010 Darfield Earthquake, New Zealand. *New Zealand Journal of Psychology*. 40(4), pp.17-25.
- Corin, C. (2011). The Christchurch hospital social work service response in the first hours after the Christchurch earthquake of 22nd February 2011. *Aotearoa New Zealand Social Work*, 23(3), 58-62.
- Dunstan, K. & Thomson, N. (2006). Demographic Trends. In Boston, J. and Davey, J. (Eds.), *Implications of Population Ageing: Opportunities and Risks*, p.9-49. Wellington: Institute of Policy Studies.

- Fernandez, L., Byard, D., Chien-Chih, L., Benson, S. & Barbera, A. (2002). Frail elderly as disaster victims: Emergency management strategies. *Prehospital and Disaster Medicine*, 17(2), April-June, 67-74.
- Finsterwalder, J. (2010). On Shaky Grounds? Customer Needs and Service Provision after a Major Disaster in the Light of Maslow's Hierarchies [online]. *New Zealand Journal of Applied Business Research*, 8(2), 1-28.
- Fitz-Gibbon, C.T. & Morris, L.L. (1987). *How to Analyse Data*. Newbury Park: Sage Publications.
- Gawith, L. (2011). How Communities in Christchurch Have Been Coping with Their Earthquake. *New Zealand Journal of Psychology*. 40 (4), pp.121-130
- Goldstraw, P. et al. (2012). The care of older people during and after disasters: A review of the recent experiences in Queensland, Australia and Christchurch, New Zealand. *Australasian Journal on Ageing*, 31(2), June, 69-71.
- Heppenstall, C. et al. (2012). *The Impact of Mass Evacuation of Older People from Residential Care Facilities following the 22 February 2011 Christchurch Earthquake*. Unpublished report to Canterbury District Health Board.
- Jacobs, K. & Williams, S. (2011). What to do now? Tensions and dilemmas in responding to natural disasters: a study of three Australian State Housing Authorities. *International Journal of Housing Policy*, 11(2), 175-193.
- Kamo, Y., Henderson, T. L., & Roberto, K. A. (2011). Displaced Older Adults' Reactions to and Coping With the Aftermath of Hurricane Katrina. *Journal of Family Issues*, 32(10), 1346-1370.
- Lewins, F. (1992). *Social Science Methodology*. Melbourne, Australia: Macmillan Education Australia PTY Ltd.
- Marshall, C., & Rossman, G. (1989). *Designing Qualitative Research*. Newbury Park: Sage Publications.
- McCull, G. J., & Burkle, F. M. Jr. (2012). The New Normal: Twelve Months of Resiliency and Recovery in Christchurch. *Disaster Medicine and Public Health Preparedness*, 6, 33-43.
- Mooney, M. et al. (2011). Psychosocial recover from disasters: A framework informed by evidence. *New Zealand Journal of Psychology*. 40(4), pp.26-37.
- Noblit, G.W. & Hare, R.D. (1988). *Meta-ethnography*. Newbury Park: Sage Publications.
- OECD. (2003). *Ageing, Housing and Urban Development*. Paris: Organisation for Economic Co-operation and Development.
- Norris, F.H., Friedman, M.J. & Watson, P.J. (2002). 60,000 Disaster Victims Speak, Part II Summary and implications of the disaster mental health research. *Psychiatry* 65(3), pp.240-260.
- Parsonson, B. & Castelfranc-Allen, J. (2011). Responding to the psychological consequences of disaster: lessons or NZ from the aftermath of the Georgian-Russian conflict in 2008. *New Zealand Journal of Psychology*. 40(4), pp.12-16.
- Poulsen, J. et al. (2011). The Omaha System Helps Find Meaning in Despair (Using the Omaha System to Document Disaster Recovery Efforts). *Health Informatics New Zealand 2011 Conference: Presentations and papers*. Health Informatics New Zealand.

Strongman, L. (2012). Resilience, Toughness and Damage. *Australian Design Review*, January 24.

Ticehurst, S., Webster, R. A., Carr, V. J., & Lewin, T. J. (1996). The Pyschosocial Impact of an Earthquake on the Elderly. *International Journal of Geriatric Psychiatry*, 11(11), 943-951.

Appendix 3: News media “cuttings”

- Anonymous (2011, June 17). Frayed nerves showing, say helpers; Residents turn to professionals. *Manawatu Standard*, p.5.
- Anonymous (2011, March 12). Hercules gives elderly refugees a lift. *The Nelson Mail*, p. 7
- Anonymous (2011, May 02). Elderly's mental illness up. *The Nelson Mail*, p. 5
- Anonymous (2012, January 19). Extra support for quake-affected elderly. *ONE News*.
- Anonymous. (2011, July 07). Scheme brings sisterly love to Christchurch. *ONE News*.
- Anonymous. (2011, June/July). ‘Wriggle room’ sought for Kate Sheppard residents, *INsite*.
- Anonymous. (2011, November 18). Rest-home owner plans court for CERA. *The Star*.
- Anonymous. (2011, September 01). Value of "Oldie Army" in post quake recovery – research. *Voxy*.
- Anonymous. (2012, June 24). Christchurch elderly feel abandoned. *Stuff*.
- Anonymous. (2012, March 20). Christchurch rental crisis 'best left to market' – Govt. *ONE News*.
- Bowker, G. (2011, June 20). Christchurch needs decisions. *Listener*. 3711.
- Carville, O. (2012, April 12). City rental crisis deepens. *The Press*, p. A.1.
- Carville, O. (2012, May 02) Soldiering on 'in the dark' holds no appeal. *The Press*, p. A.3
- Daly, M. (2012, July 27). Flu epidemic fears talked down. *Stuff*.
- Gates, C. (2011, September 22). The golden age of rock 'n' roll: rockers of ages choir. *The Press*, p. A.1.
- Gates, C. (2012, July 30). Heartbreaking goodbyes in the residential red zone. *The Press*.
- Glass, A. & Gates, C. (2011, June 06). Mental health takes a big hit from quakes. *Stuff*.
- Glass, A. (2011, August 03). Elderly evacuee deaths 'high'. *The Press*, p. A.2.
- Glass, A. (2011, September 27). Exercise keeps quake stress at bay for elderly. *The Press*.
- Greenhill, M. (2012, April 10). Elderly in post-earthquake plight. *The Press*.
- Greenhill, M. (2012, June 07). Welfare workers brave snow to ensure vulnerable cared for. *The Press*, p. A.3.
- Kinita, D. (2011, March 01). City finds space for the elderly. *The Daily Post*, p. A.5
- Koubaridis, A. (2010, September 17). Respite ward helps elderly to cope. *The New Zealand Herald*, p. A.4
- Macfie, R. (2011, July 09). The plight of Canterbury homeowners. *Listener*. 3713.

- Macfie, R. (2011, June 21). Ian Simpson interview. *Listener*. Online Only. Retrieved September 18, 2012, from <http://www.listener.co.nz/commentary/letter-from-christchurch/ian-simpson-interview/>
- Macfie, R. (2012, February 25). Christchurch one year on. *Listener*. 3746.
- Mathewson, N. (2012). Group helps poor, uninsured families. *The Press*, p. A.4.
- Patterson, J. (2012, April 30). Trapped in quake-damaged suburbs. *The Press*.
- Price, A. (2011, May 19). Quake evacuations report 'a joke'. *The Press*.
- Sachdeva, S. (2011, December 05). Trust plans to reduce section costs. *The Press*.
- Sandys, S. (2012, February 14). Age Concern to share quake lessons. *Ashburton Guardian*.
- Stylianou, G. (2011, June 01). Heating grants for city's elderly. *The Press*, p. A.9
- Stylianou, G. (2011, June 11). Few apply for heating subsidy. *The Press*, p. A.17
- Stylianou, G. (2012, August 08). Elderly given seven days to leave quake homes. *The Press*.
- Stylianou, G. (2012, July 06). Urge to hoard linked to depression. *Stuff*.
- Stylianou, G. (2012, July 17). Canterbury flu rate 4 times. *Stuff*.
- Todd, R. (2010, September 17). Temporary ward to close next week. *The Press*, p. A.9
- Todd, R. (2011). Some old folk isolated; Our Elderly. *The Press*, p. A.7.
- Todd, R. (2011, April 23). More reports of abuse as elderly shift to new accommodation: Our Elderly. *The Press*, p. A.9.
- Todd, R. (2011, April 25) Choice gone for Chch old folk. *The Press*.
- Young, S. (2011, July 27). Volunteer visitor relieves quake victim's loneliness. *The Nelson Mail*, p. 8