

Building Community Resilience: Learning from the Canterbury earthquakes



**Final Report to Health Research Council and
Canterbury Medical Research Foundation**

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**Authors: Louise Thornley, Jude Ball, Louise Signal,
Keri Lawson-Te Aho, Emma Rawson**

Mihi

He mihi tuatahi ki te Wairua Tapu. Nāna te tīmatanga me te whakamutunga o ngā mea katoa. He mihi hoki tēnei ki ngā mate. Haere, haere, haere atu rā ki te wairua maha o te Atua me ngā Tīpuna kua wehe atu ki te pō. Te hunga ora ki te hunga ora. Te hunga mate ki te hunga mate.

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Mā te Atua koutou e manaaki e tiaki i ngā wa katoa.



Photo: '185 Empty Chairs' memorial art installation by artist Pete Majendie – a tribute to the 185 people who lost their lives in the February 2011 earthquake.

Cover photo: Christchurch's Sumner beach, June 2012, showing earthquake damage and shipping containers to protect the road from further rock fall.

Acknowledgements

The Canterbury earthquakes have had, and continue to have, a huge impact on all who live in the region. The researchers gratefully acknowledge all the people who took part in this research. We thank the participants for giving their time during a very difficult period, and for sharing their views and experiences. Their reflections and insights have directly informed the potential learning from this research.

We acknowledge and thank the local community coordinators who assisted with recruitment of participants.

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1 Summary

Community participation is vital in disaster planning, response, and recovery. Around the globe, disaster experts agree on the need to increase the resilience of communities. But limited research exists into what increases a community's ability to adapt after a disaster, especially from the perspective of post-disaster communities themselves.

Christchurch, New Zealand's second-largest city, was hit by a series of devastating earthquakes in 2010 and 2011. The Health Research Council of New Zealand and Canterbury Medical Research Foundation funded this research as one of five projects studying the health implications of the earthquakes.

Canterbury District Health Board (Community and Public Health), Mental Health Foundation, University of Otago, and Quigley and Watts Ltd carried out the research. Ethical approval was given by the Department of Public Health, University of Otago Human Ethics Committee.

1.1 Research purpose

The project gathered information from six affected Canterbury communities to understand what helped (and hindered) their resilience. The overall aim was to inform action, by communities and authorities, to better prepare communities for future adverse events.

1.2 Case-study communities

Communities are groups of people linked by a common bond. The six case studies focused on:

- Lyttelton
- Shirley
- Inner City East
- marae communities¹
- migrant and refugee communities
- Christchurch Community House (a workplace community).

These diverse communities were selected on advice from local experts and included some of the hardest hit communities in Canterbury. The fieldwork for this research project took place from May to July 2012, 15-17 months after the destructive February 2011 earthquake.

1.3 Research participants

More than 90 community leaders and residents took part in the research, through focus-group discussions and interviews. Participants ranged in age from 21 to 79 years and were ethnically diverse:

- New Zealand European – 55%
- Māori (indigenous New Zealanders) – 32%
- Other ethnic groups – 13%²

¹ A *marae* is a Māori meeting place or cultural community centre where Māori culture is celebrated, Māori language is spoken, and iwi (tribal) obligations are met. The marae is a wāhi tapu – a sacred place where iwi and Māori culture can flourish.

² These population-group percentages are approximate. Several participants identified as more than one ethnicity (e.g. Māori and NZ European, or Māori and Samoan).

Most Māori participants identified as Ngāi Tahu, the largest South Island iwi (tribe).

1.4 Key findings

Our research identified four common influences on community resilience:

- pre-existing community connectedness³ and community infrastructure⁴
- community participation in disaster response and recovery
- community engagement in official decision-making, and
- external support from organisations and authorities outside the community.

1.4.1 *Community connectedness and infrastructure*

The research found that strong pre-existing community connectedness and infrastructure (e.g. local organisations, marae, and leaders) were critical in helping communities adapt after the disaster.

Differences in community responses and outcomes between the six case studies can be attributed largely to differences in community connectedness and infrastructure *before* the earthquakes. Communities that identified their own needs and solutions were well placed to adapt.

After the earthquakes, opportunities to connect with others were vital – through organised community events (e.g. concerts, anniversaries, and festivals) in community-based venues. Community connectedness was hindered in communities where most venues were closed because of earthquake damage.

1.4.2 *Community participation in disaster response and recovery*

In the case-study communities, community-based responses to the earthquakes included informal, spontaneous support and organised responses led by community and iwi (tribal) organisations.

Most organised responses were initiated by existing community groups or leaders, but some new initiatives emerged, such as the creative arts project Gap Filler and the youth-led Student Volunteer Army.

The pre-existing marae network was a key hub for recovery support, for both Māori and non-Māori.

Participants emphasised the importance of cultural practices and values in assisting recovery and adaptation. For example, core Ngāi Tahu/Māori values of manaakitanga (caring and hospitality, e.g. on marae) and kotahitanga (the iwi acting in one accord to support the people of Christchurch, regardless of race, culture or ethnic identification).

Effects of community responses on well-being

Community-based support – both informal and organised – enhanced the well-being and sense of belonging of both givers and receivers. This suggests that the act of contributing may be crucial in adapting after disasters, and in building resilience to future adverse events.

³ *Community connectedness* refers to: relationships, interactions, and networks within and across a community

⁴ *Community infrastructure* refers to: community-based organisations, marae, grassroots groups, leaders, networks, and/or facilities (e.g. community halls, parks, playgrounds, and libraries)

In connected communities with strong pre-existing infrastructure and a comprehensive local disaster response (e.g. marae communities, Lyttelton, Inner City East), a 'virtuous circle' seemed to develop. Taking part in community support and responses enhanced well-being both individually and collectively – and gave rise to further community involvement. Many participants reported a heightened sense of community and continued to feel energised and empowered by a post-earthquake 'culture of possibility', where subsequent innovation and community action could more easily happen.

1.4.3 Community engagement in official decisions

Community engagement in official decisions is the process of building relationships between community members and authorities as partners, to plan and work towards change in a community.

Participants in the more engaged communities said that their communities wanted to initiate local action and be involved in local and city-wide recovery, including planning for the future.

The contribution of community engagement and empowerment (e.g. self-determining actions, greater involvement in official decisions) to resilience is highlighted in our research and in international literature.

Some participants felt that engagement between authorities and communities needed to improve. They advocated for greater community participation and good communication about official decision-making.

They wanted officials to listen more to community perspectives, to explain the rationale behind decisions made, and to support the community to meet local needs.

1.4.4 Importance of external support

In all six case studies, support from outside the community was vital, especially from local and central government agencies. In general, high levels of external support helped communities to adapt after the earthquakes. However, many participants also reported a lack of official support, especially early-on in the central city and in Shirley.

1.5 Suggestions for increasing community resilience

Our findings point to three broad strategies to increase community resilience:

- encourage community-led action
- understand community complexity and diversity, and
- develop and strengthen partnerships between communities and government.

Our research highlights the key role of community-led action (e.g. through health promotion, iwi/tribal development and community development⁵ approaches), and informal social networks, in strengthening the resilience of communities.

Resilience-building efforts need to be developed by and with community leaders, and supported by authorities. Getting to know communities, and understanding community dynamics, is vital. This may require new models of partnership and shared decision-making between authorities and communities.

⁵ *Community development* refers to: communities working together to identify their own needs and to create shared solutions

Our research highlights a need for communities and authorities to work together to:

- build strong, empowered communities through community-led action, e.g. marae development programmes, community development, and neighbourhood events
- strengthen community infrastructure by enabling and resourcing community-based organisations and iwi/tribal infrastructure, especially in areas where this is lacking
- promote volunteering – to enhance the well-being of givers as well as receivers
- better understand community needs and wants, and
- strengthen partnerships between communities and authorities to support resilience-building and engage communities in decision-making.

More research into effective ways to increase community resilience would be useful, especially kaupapa Māori research (from a Māori world-view).

Our research illustrates *why* it is important to build strong, engaged communities – because these communities cope better with crises. This is consistent with international literature on disaster resilience and mental well-being.

2 Introduction

This report presents the findings of case-study research on six Canterbury communities after a series of devastating earthquakes in 2010 and 2011.

The research explores how the communities responded to the earthquakes. It focuses on the factors that helped and hindered their resilience, both during the response and in the recovery phase.

The report is intended primarily for communities, community organisations, and iwi (tribes) in New Zealand, especially the Canterbury participants in the research. It will also be of interest to government agencies at local and national levels in New Zealand, as well as internationally. Articles aimed more specifically at a wider international audience will be submitted for publication in 2013.

Note: The overall findings across all the case studies are presented in the body of the report, and detailed findings from each case study are attached as appendices (Appendices 1-6).

The findings are structured according to the research objectives. The research methods and findings are followed by a discussion and implications for policy and practice.

Specialised terms used, including Māori words, are defined in the glossary and within the report.

2.1 Funding and support

The Health Research Council of New Zealand and Canterbury Medical Research Foundation funded the research as one of five projects studying the health implications of the earthquakes.

Community and Public Health (Canterbury District Health Board), Mental Health Foundation, University of Otago, and Quigley and Watts Ltd carried out the research. Ethical approval was given by the Department of Public Health, University of Otago Human Ethics Committee.

2.2 Background – the Canterbury earthquakes

Since September 2010, Canterbury has suffered a series of devastating earthquakes, with the major quakes taking place in September 2010, December 2010, February 2011, June 2011, and December 2011.

The February earthquake was especially destructive, resulting in the loss of 185 lives. At the time of writing, the earthquakes and associated aftershocks have contributed to chronic stress and uncertainty in the community for over two years.

The Canterbury earthquakes are unique internationally in their intensity and in the repeated damage they have caused in large urban and suburban communities, including the central business district (McColl and Burkle 2012). The February earthquake's peak ground accelerations, which describe an earthquake's intensity, were among the highest ever recorded worldwide (Pacific Earthquake Engineering Research Center NGA Database 2012, National Geophysical Data Center 2012, Anderson 2010).

2.3 Research approach – a focus on communities

Natural and human-made disasters are an important public-health problem (Kessaram and Signal 2011).

Our research focuses on community responses, drawing on perspectives from public health and mental health promotion (e.g. Kobau et al 2011, Cooke et al 2011). We sought the views of residents and

community leaders, rather than authorities, to explore post-disaster experiences of ‘ordinary’ people living through extraordinary circumstances.

We note, however, that resilience can be experienced and promoted at individual, community, and societal levels (Boulton 2012, Kobau et al 2011). These three levels – individual, community, and societal – are inter-related (Castelden et al 2011).

Community responses, and associated community organisations, are just one aspect of the overall earthquake response and recovery. We acknowledge that many other vital responses occurred in Canterbury, especially from central and local government agencies, emergency authorities, and private-sector organisations.

2.4 Literature in support of the community-based approach

Internationally, there is growing recognition of the vital role of strong communities in disaster contexts and more generally.

Research shows that the well-being of individuals is helped by socially supportive communities (Friedli et al 2007, Wilkinson and Marmot 2003) and that local community involvement in disaster recovery efforts can speed up the recovery (Global Health Workforce Alliance 2011, Government of the Republic of Haiti 2010).

New Zealand’s Psychosocial Recovery Advisory Group (initiated by the Joint Centre for Disaster Research, Massey University and GNS Science) has noted that working with individuals in the context of families, and the wider community, strengthens disaster recovery (Mooney et al 2011). It recommends drawing on a community’s existing strengths (a strengths-based approach) to promote recovery, integrating individual, family/whānau, and community needs and perspectives (Mooney et al 2011).

2.5 Aim and objectives

Our purpose was to gather information from six affected Canterbury communities to understand what helped (and hindered) their resilience. The overall aim was to inform action, by communities and authorities, to better prepare communities for future adverse events.

The research objectives were to:

1. examine community responses to the earthquakes
2. describe the effects of community responses on well-being
3. identify factors that affected community resilience (including pre-existing community strengths or constraints and post-earthquake strategies and practices)
4. examine how the experiences of Christchurch communities compare with international and indigenous research findings on disaster resilience and mental well-being
5. provide recommendations for action, by communities and authorities, to increase and support community resilience.

Note: The research does not evaluate the effectiveness of community responses. Rather, it examines and describes a selection of those responses to identify factors that increase community resilience.

2.6 Definitions

2.6.1 Community resilience

Community resilience is defined as the process of communities adapting positively to adversity or risk (Kobau et al 2011, Cooke et al 2011).

This definition is consistent with those in the literature on disaster resilience. For example, experts have defined such resilience as developing the capacity of people, communities, and societies to anticipate, cope with, adapt to, and develop from the consequences of disaster (Paton and Johnston 2001, cited in Mooney et al 2011).

Resilience is viewed as a capacity that grows out of people and communities rather than as something imposed on them (Paton and Johnston 2006).

The **resilience of Māori communities** incorporates Māori cultural processes such as whanaungatanga (sense of family connection)⁶ and manaakitanga (caring and hospitality), and is based on mana whenua⁷ status and whakapapa⁸ obligations (Kipa 2011, Lawson-Te Aho 2011). Marae, hapū, and iwi are the settings and mechanisms for responses to disaster.

2.6.2 Community resilience as a process

Our research considers community resilience as a process, not an outcome. We are concerned primarily with the psychological resilience of communities, rather than other aspects of resilience in a disaster context, e.g. infrastructural or economic resilience. However, we acknowledge that these various elements of resilience are interconnected and difficult to separate.

2.6.3 Communities

Communities are groups of people linked by a common bond. This research includes geographical communities (e.g. neighbourhoods and suburbs) and communities of interest, e.g. a workplace (Christchurch Community House), ethnic communities, and the whakapapa (kinship)-based community of Rāpaki.

A community is more than just a collection of individuals. It has its own interests, preferences, resources, and capabilities (Patterson et al 2010).

Māori communities are defined as communities linked by both whakapapa and kaupapa (Lawson-Te Aho 2011). *Whakapapa* describes the kinship and historical relationships that connect members of whānau, hapū, and iwi⁹ (Lawson-Te Aho 2010).

Kaupapa refers to the common priorities and experiences that bind a community together.

⁶ *Whanaungatanga* refers to: a sense of family connection that develops from kinship rights and obligations and can also extend to others with whom one develops close reciprocal relationships

⁷ *Mana whenua* refers to: territorial rights associated with possession and occupation of tribal land

⁸ *Whakapapa* refers to: kinship and historical relationships that connect members of whānau, hapū, and iwi

⁹ *Whānau* refers to family or groups connected by close reciprocal relationships, *hapū* refers to subtribe, and *iwi* refers to tribe

2.7 Research team and advisors

Our research team comprised Louise Thornley and Jude Ball (Quigley and Watts Ltd), Louise Signal (University of Otago), Keri Lawson-Te Aho (University of Otago/Ngāi Tahu, Ngāti Kahungunu), and Emma Rawson (Community and Public Health¹⁰, Canterbury District Health Board/Ngāti Ranginui, Ngāi Te Rangi, Raukawa).

An advisory group guided the research. The advisors were: Alistair Humphrey (Canterbury Medical Officer of Health, Canterbury District Health Board), Lucy D’Aeth (Canterbury District Health Board), Hugh Norriss (Mental Health Foundation), Freedom Preston-Clark (Mental Health Foundation/Ngāti Kahu, Te Aupouri), and Richard Egan (University of Otago). They ensured that the research was relevant, and designed and carried out appropriately, based on local knowledge.

An informal cultural advisory process was established through Keri Lawson-Te Aho. In this process, she accessed her networks in Ngāi Tahu to seek advice from the iwi leadership and whānau (family) living in Canterbury. This input contributed to a culturally safe and appropriate research process.

The next section discusses our research methods.

¹⁰ Community and Public Health is the public health division of the Canterbury District Health Board, and provides public health services to those people living in the Canterbury, South Canterbury, and West Coast regions.

3 Research methods

The research uses a case-study methodology (Yin 2009) and includes a literature review and six community case studies.

3.1 Literature review

We carried out an international literature review to identify key lessons on: a) disaster resilience, particularly what helps and hinders community resilience, and b) mental well-being in relation to disasters. We received advice from the Mental Health Foundation and agreed on review questions with the wider advisory group.

We used targeted database searches, internet searches (Advanced Google Scholar), and references from key articles to find relevant literature. Keri Lawson-Te Aho provided literature on indigenous resilience from Māori and overseas indigenous sources (e.g. Boulton 2012, Lawson-Te Aho 2012, Kirmayer et al 2009, Ungar 2008). The Joint Centre for Disaster Research (Massey University/GNS Science) also provided advice.

Search terms included: community resilience, indigenous community resilience, disaster resilience, enablers, facilitators, barriers, mental well-being, mental health promotion, and post-traumatic growth¹¹.

3.2 Case studies

The six case studies were:

- Lyttelton
- Shirley
- Inner City East
- marae communities
- migrant and refugee communities
- Christchurch Community House (a workplace community).

All six communities viewed themselves as just that – groups linked by a common bond.

3.2.1 Selection of communities

We selected the case studies on advice from the advisory group. The rationale was to include both geographic communities and ‘communities of interest’, including ethnic and workplace communities.

Selection criteria included the extent of earthquake impact (among the hardest hit) and socioeconomic and ethnic diversity. The researchers appraised other research underway in Canterbury to reduce potential duplication and avoid particular communities feeling ‘over-researched’.

3.2.2 Socioeconomic and ethnic diversity

All the case studies, with the exception of Lyttelton, focused on communities with widespread experience of disadvantage and marginalisation before as well as after the earthquakes.

¹¹ *Post-traumatic growth* refers to: the experience of positive change that emerges from the struggle with highly-challenging life crises

Compared with the wider Canterbury region, Inner City East and Shirley are relatively socioeconomically deprived. Median incomes are lower, and there are lower rates of home ownership (Statistics New Zealand 2006a). Both areas are more ethnically diverse than Canterbury as a whole, with fewer European and more Māori, Pacific, and other residents (Statistics New Zealand 2006a). By contrast, Lyttelton residents are predominantly New Zealand European, although there is a significant Māori community based mainly at Rāpaki. Lyttelton's median income is slightly higher than that of the Canterbury region (Statistics New Zealand 2006a).

3.2.3 Community organisations

The number and reach of community organisations is relatively low in Shirley compared to the other two geographic case studies (and other Christchurch communities). For example, Shirley had only four community organisations in 2011 – one for every 3,250 residents (Christchurch City Council 2011). By contrast, Lyttelton had approximately one community organisation for every 100 residents, and Inner City East had one for every 220 residents (Christchurch City Council 2011).

3.2.4 Experiences of hardship and funding constraints

Many of the participating community organisations (e.g. Rēhua Marae, Te Whare Roimata, Community House) work primarily with people facing significant hardship. Some residents who took part were themselves experiencing homelessness, including several using the City Mission's services in Inner City East.

The participating community workers were part of organisations that tend to have insecure funding and resourcing constraints. Most organisations are small (e.g. with only two or three paid community workers). Though funded largely from government sources, the participating organisations are in touch with their communities. In general, they are 'grassroots' organisations (i.e. ordinary people are involved as workers, leaders, and volunteers, and the work centres on the needs and priorities of ordinary people).

3.2.5 Marae communities

Māori communities face both historical and ongoing social and economic disadvantage (Robson and Harris 2007). The marae was selected as a case-study focus because of the key role of marae after the earthquakes. The marae that took part were Rēhua, Wairewa, and Rāpaki Marae. As some participants were also involved with Tuahiwi Marae, some comments about Tuahiwi are included.

Almost all participants¹² in the marae communities case study were Māori, mostly of Ngāi Tahu descent. Our research has a strong focus on Ngāi Tahu over other tribes or the wider Māori community. We selected this iwi because of its coordinated response and its prominence as the largest South Island iwi. Ngāi Tahu holds mana whenua status/tribal authority in the area. The Papatipu Rūnanga (local tribal councils) involved were Ngāi Tūāhuriri in Christchurch, Ngāti Wheke in Rāpaki, and Ngāti Irakehu covering the Banks Peninsula.

However, we note that only 28% of Māori living in Christchurch identify as Ngāi Tahu (Statistics New Zealand 2006b). This means that the Ngāi Tahu perspectives cannot be read as representing all Māori in Canterbury.

¹² One participant was Pākehā (New Zealander of European descent)

Various research projects have shown that the hardest hit Ngāi Tahu communities were in Kaiapoi, Christchurch East, and Rāpaki (Families Commission 2012) – all included in our case studies.

We held two focus groups with whānau/family members (as opposed to marae leaders) in two socioeconomically-disadvantaged areas that were especially hard hit by the earthquakes, Avondale and Kaiapoi. One of the whānau has whakapapa links to Ngāi Tūāhuriri from Tuahiwi Marae.

3.2.6 Migrant and refugee communities

Migrant and former-refugee participants represented many diverse communities, including: Chinese, Korean, Japanese, Somalian, Nepalese, and Ethiopian. People who resettle in New Zealand differ widely in their levels of education, skill, and English-language proficiency, and in their prior experiences.

Members of former-refugee communities tend to have had little control over their move to New Zealand and may have experienced persecution, war, torture, deprivation, or civil unrest in their home countries (Ministry of Social Development 2008). In New Zealand, they commonly experience unemployment, homelessness or housing insecurity, language barriers, and difficulties in accessing services (Ministry of Social Development 2008).

3.2.7 Christchurch Community House

We included a workplace as a community of interest, reflecting that people increasingly identify as part of communities that are not geographically based (Bach et al 2010). Christchurch Community House is a large ‘one-stop-shop’ of 52 community organisations (not-for-profit social services) based in a shared office space. It is a collection of workplaces where community members share facilities, services, collegial relationships, and networks.

3.3 Research participants

Participants were recruited by local coordinators – one for each case study – with a good knowledge of the community. Sometimes, a ‘snowball’ technique was used, whereby already-recruited participants recommended other participants according to specified criteria.

- A total of 92 community leaders and residents took part in the case studies.
- The fieldwork comprised 11 focus groups and interviews with 29 individuals.
- Participants’ ages ranged from 21 to 79 years.
- Just over half of participants were New Zealand European (55%), almost a third were Māori (32%, mostly Ngāi Tahu), and the rest were of other ethnicities (13%).¹³

The Māori participation rate was much higher than the percentage of Māori in the Canterbury region (just over 7% in the 2006 Census, the latest available). This is because we specifically recruited Māori in the marae and Shirley case studies.

Our research involved community-based leaders and ordinary residents, whose voices may have had less coverage in disaster research compared with those of experts or authorities. Community leaders who participated were generally paid or unpaid community workers, and most had been in their role for years. Some new ‘natural’ leaders also emerged in the post-earthquake period.

¹³ These population-group percentages are approximate. Several participants identified as more than one ethnicity (e.g. Māori and NZ European, or Māori and Samoan).

Including residents ensured that the perspectives captured were wider than those of community organisations. Of course, categories often overlapped as people had various roles. Most community leaders in the geographic case studies were also residents.

We interviewed a number of displaced people, in the Lyttelton and Inner City East case studies, to capture the perspectives of residents who had left their neighbourhood because of the earthquakes. Several who had left Christchurch altogether were also included.

3.4 Fieldwork

We developed a semi-structured interview schedule, which we adjusted after piloting to improve the order of the questions. We used this schedule for our interviews and focus groups (see Appendix 7), adapting the questions slightly as required. A Maori-specific schedule was used in the marae and Shirley focus groups. The questions focused on the post-earthquake period from September 2010 to July 2012, which included both response and recovery phases.

We carried out the fieldwork between May and July 2012, approximately 16 months after the destructive February earthquake. Experienced researchers ran the focus groups and interviews. Most discussion centred on the February quake, but some participants, especially those in Kaiapoi and the Avon Loop, discussed the September 2010 event as well, because they were severely affected by that earthquake.

The group discussions lasted between two and three hours, and the interviews about one hour. Both were digitally voice-recorded. Detailed notes were taken as back-up in all but one focus group, where they were written up after the meeting.

3.4.1 The Māori research process

Keri Lawson-Te Aho (Ngāi Tahu, Ngāti Kahungunu) and Emma Rawson (Ngāti Ranginui, Ngāi Te Rangī, Raukawa) led the Māori research process. The Māori-specific groups were overseen by a Ngāi Tahu kaumātua (respected elder), Riki Pitama (Ngāi Tūāhuriri, Ngāti Irakehu, Ngāti Wheke).

All groups except one were co-facilitated by two Māori researchers – Keri Lawson-Te Aho and Adrian Te Patu (Te Āti Haunui-a-Pāpārangi, Ngāti Ruanui, Ngāti Apa, Ngarauru, and Rangitāne ki Wairarapa), a local Māori facilitator living in Christchurch. The exception, because of illness, was co-facilitated by the Ngāi Tahu kaumātua and a non-Māori researcher. A Ngāi Tahu peer-review process was built into the project, enabling iwi representatives to give feedback at various points as we carried out and wrote up the research.

3.4.2 Feedback from participants

At the focus-group discussions, many participants (mostly community leaders, but some residents) commented that this was the first time they had reflected on their experience, and that the process had been useful.

3.4.3 Overview of case studies and participants

Table 1, on the following page, gives an overview of the fieldwork for the six case studies and details about participants.

TABLE 1: CASE STUDIES AND PARTICIPANTS

Community	No. of participants	Focus groups	Interviewees	Ethnicity	Age
Lyttelton	18	2 small groups of 3 people each, all community leaders. Mix of paid and voluntary leadership roles.	12 interviewees – 4 community leaders, 6 current residents, and 2 former (displaced) residents.	Most Pākehā ¹⁴ , 1 also Māori, 1 also French Polynesian. 3 were migrants to New Zealand of European ethnicity.	30–68 years, with an even spread within this range.
Shirley	13	1 focus group of 12 people, mostly residents but including 1 community worker.	1 interview with a former community worker, displaced and living outside Christchurch.	1 Māori community worker, 1 Pākehā community worker. Residents were a mix of Māori (7) and New Zealand European or ‘New Zealander’ (6).	21–58, with median of 42. Younger profile than other case studies.
Inner City East	23	1 group of 7 community leaders. Mix of paid and voluntary leadership roles.	16 interviewees (4 community leaders and 12 residents). Of these 16, 2 leaders and 2 residents were displaced.	Most Pākehā, 1 Māori, 1 ‘Afro-Kiwi’. 2 leaders were migrants to New Zealand of European ethnicity.	33–79, more in their 50s and 60s than younger or older.
Marae communities	19	5 focus groups – mostly small: Rēhua (6) Wairewa (3), Rāpaki (3), Avondale (4), Kaiapoi (3).	None.	All but 1 identified as Māori, 1 also Samoan. 1 Pākehā (whānau member).	24–72, most over 50 years old.
Migrant and refugee communities	11	2 groups, refugee leaders (4 participants) and migrant leaders (5 participants). Mix of paid and voluntary leadership roles.	2 interviews (1 a refugee leader, 1 a Ministry of Social Development-funded coordinator for migrant and refugee resettlement).	Refugee leaders were Ethiopian, Somali (2), Nepalese, and Bhutanese. Migrant leaders were Indonesian, Indian, Korean, Chinese, and Japanese. 1 New Zealand European resettlement worker.	28–72, with an even spread within this range.
Community House	8	None.	8 interviewees (Manager and Chair, and 6 staff of tenant organisations).	Most Pākehā, 1 Māori/Pākehā.	30–64, all but 1 aged 40–64.

¹⁴ Pākehā refers to New Zealander of European descent

3.5 Analysis

After the fieldwork, all recorded data was professionally transcribed. The transcripts were checked for accuracy by research team members who had been present at the focus groups and interviews, with reference to the voice recordings and notes where necessary. A Māori research team member checked the Māori-specific transcripts to ensure accurate transcription of cultural concepts.

First, we analysed the six case studies individually, and then compared data across all six case studies to identify the overall findings. The third stage of the analysis was to compare the findings with international and New Zealand literature.

The coding frame, used to structure the analysis, was based on the research objectives and initial analysis of the transcripts. It included Māori concepts of whakapapa (kinship), leadership, tino rangatiratanga (self-determination), whanaungatanga (sense of family connection) and manaakitanga (caring and hospitality).

Our analysis also drew on the evidence-based, *Five Ways to Well-being* (Aked et al 2009) mental health promotion framework. The five ways to well-being are: connecting, giving, taking notice, keeping learning, and being active).

We used recognised strategies to check the accuracy, consistency, and completeness of our analysis of participants' accounts. For instance, two researchers were involved in analysing and writing-up the six case studies, and each systematically checked the findings of the other against the participant transcripts. Furthermore, participants, advisors and experts peer reviewed the report before we finalised it.

3.6 Peer review and reporting

We wrote up the fieldwork in October and November 2012. Peer review of the report was carried out in four stages:

- The draft report was peer reviewed by members of the advisory group.
- Key contacts from each of the six case-study communities (the local coordinator and other individuals as appropriate) provided feedback and a check for accuracy on the draft case studies.
- In December 2012, we held six telephone discussions to reflect on the overall findings with representatives of various local and central government agencies: Christchurch City Council, Canterbury Earthquake Recovery Authority, Ministry of Civil Defence and Emergency Management, Te Puni Kōkiri, Housing New Zealand Corporation, and Ministry of Social Development.
- The final report was also peer reviewed by the two funding agencies, the Health Research Council of New Zealand and Canterbury Medical Research Foundation.

We incorporated comments and suggestions from the peer reviews and discussions, and finalised the report in February 2013, two years after the destructive February 2011 earthquake.

3.6.1 Presentation of quotes from participants

In reporting direct quotes from participants, the researchers have removed repeated words and fillers such as 'you know' or 'sort of' (unless they are needed for meaning or emphasis).

Participant quotes are highlighted throughout the report using: a) inverted commas for short quotes, and b) indentation and italics for longer quotes.

3.7 Limitations of the research

3.7.1 *Scale of the earthquakes versus scale of the research*

The earthquakes and their aftermath were so large and complex that even people with overview roles could not possibly understand everything that happened. Participants' accounts provide a necessarily partial view.

Also, our research examines only six communities at a particular time – between May and July 2012. Views may have differed elsewhere and changed throughout the recovery process.

We acknowledge that, because of the above, our research cannot provide a complete picture of the situation. Nevertheless, it provides a useful snapshot in time. The findings from the six cases have been compared, and together they shed light on community resilience in the wider Canterbury region and in other communities facing adversity or risk.

3.7.2 *Subjectivity of participant perceptions*

The findings are based primarily on participants' perceptions, which are naturally subjective.

Nevertheless, the findings are consistent with those uncovered in the international and local literature review, strengthening their reliability.

Also, perceptions to some extent shape reality. For example, research consistently shows that *perceived* social support impacts positively on health and well-being independently of actual social support (e.g. Thoits 2010, Ozbay et al 2007, Wilkinson and Marmot 2003).

3.7.3 *Potential biases*

1 The community leaders may have a positive bias about the contribution of community organisations because of their leadership role in them.

However, community leaders did not focus only on positive factors but spoke frankly about challenges and constraints. Their contributions to the research were vital as they had insider knowledge of their organisations. Many were volunteers or in unpaid governance roles, reducing the likelihood of them overselling their organisations' impact.

Furthermore, their views were generally consistent with those of residents. Some community-leader participants emerged as leaders after the earthquakes, and were not part of community organisations. Even so, to reduce any potential bias, we have distinguished between comments made by residents and by leaders where appropriate.

2 Selection bias may be an issue since the research is largely reliant on the particular communities, community leaders, and residents selected as participants.

That said, considerable efforts were made to achieve a diverse range of participants (see section 3.3). Both current and displaced residents were included.

3 Recall bias could be an issue because the fieldwork took place approximately 16 months after the February 2011 earthquake.

The discussions focused on: 1) the early weeks and months from late February 2011, and 2) the first few months of 2012. Participants' memories and recall of the first stage in particular may be less reliable than if the fieldwork had taken place earlier.

For sensitivity and practical reasons, we could not have carried out our fieldwork straight after the February earthquake. Affected communities were necessarily focused on coping with the immediate effects.

As stated, our findings present a 'snapshot' in time; other factors may have affected resilience in the immediate aftermath that participants then forgot or now take for granted. Given our interest in community well-being, the medium-to-long term is more critical than the immediate aftermath.

The next section presents the overall findings of the research.

4 Findings

This section presents our research findings, combined across all six case studies. Detailed findings from each case study are attached as appendices (Appendix 1-6).

The findings are structured according to the following headings, based on the research objectives.

Outline of findings section

- 4.1 Effects of earthquakes on well-being
- 4.2 Community responses to the earthquakes
- 4.3 Effects of community responses on well-being
- 4.4 Factors that affected community resilience
- 4.5 Advice for other communities

4.1 Effects of earthquakes on well-being

The Canterbury earthquakes had dramatic effects on individual and collective well-being. Aside from the obvious consequences – including loss of life, injuries, and widespread damage to buildings, facilities, and services – there were other ongoing effects.

Fear of aftershocks and stress of uncertainty, especially in relation to housing and employment, were common concerns for people – in the immediate aftermath and especially in later months (6-17 months after the February earthquake).

‘Burnout’ of workers was also discussed, as many people were working long hours in difficult conditions, trying to help the most vulnerable people. Some participants commented on the grief of losing public places, including the central business district and historic heritage such as churches. Even participants who did not attend church felt the loss of these strong symbols of community.

Participants in several communities emphasised that earthquake-related stress exacerbated existing social and health problems. Some mentioned that alcohol-related problems increased as the months went by.

Many participants said that people did not always seek help because of the stigma associated with mental-health problems; because other people were seen as ‘worse off’ (a widespread perception); or because asking for help meant ‘loss of face’. In several case studies, Māori participants said that reluctance among some Māori to seek help was related to feeling *whakamā* (shy or ashamed) about admitting a need for support. Pacific peoples and the elderly were also identified by participants as groups that were particularly reluctant to seek help. The well-being of people who didn’t access support when they needed it is likely to have been negatively affected.

Further effects on well-being are discussed as part of the following sections.

4.2 Community responses to the earthquakes

Note: The responses of community organisations to the earthquakes were diverse, as were informal responses. The community organisations varied in size, structure, funding sources, and degree of influence. In reading the findings, this diversity should be kept in mind.

Participants reported that communities responded proactively after the earthquakes, both in the immediate response phase and in the months that followed.

Many said that, during the immediate aftermath, there was little official response from disaster authorities in their neighbourhood, especially in terms of welfare assistance. However, some community leaders said that timely official emergency assistance, such as water and power restoration, was extremely helpful (discussed more in section 4.4.5). It appears that the extent of official support from disaster authorities varied among the selected communities. It is also possible that some individuals may not have been aware of some official support on offer.

Many residents said that, because of a lack of official help, they had little choice but to turn to each other and community-based organisations for support. For example, participants in the Shirley case study said:

P1: As far as services go, there was bloody nothing, nothing at the shops, nothing up – ...Here we are, stressed to the max – everything's closed.

P2: We were all getting sent to the Shirley Library but not even there, there was nobody that we could talk to.

4.2.1 Informal community responses

Informal support between neighbours was widespread, and one participant described it as 'absolutely fantastic'. The support provided was both practical and emotional. It included checking on people's well-being; feeding and housing people who had lost their homes; allowing public access to water from private wells; distributing food and water to neighbours; and undertaking a range of other practical tasks.

Participants reported that just being together, talking, and sharing cups of tea were important aspects of neighbourly support. Spontaneous gatherings in backyards and on street corners continued in the months after the major earthquakes, particularly when a significant aftershock occurred. In Māori communities (marae), whakawhanaungatanga – the nurturing of whānau and other relationships – took on greater importance throughout the disaster and post-disaster period.

According to participants, individual citizens were largely responsible for spontaneous creative initiatives, which featured particularly strongly in accounts from Lyttelton and Inner City East. The initiatives included:

- decorating fences with ribbons, flowers, and banners bearing messages of hope
- putting flowers into the orange traffic cones that were widespread on the broken roads
- knitting colourful blankets for the shipping containers that were being used as barriers against falling rocks and
- sewing heart brooches to give to passers-by.

Some initiatives were started by one or two individuals but quickly gained their own momentum and eventually became organisations. An example is 'Gap Filler' – an initiative to temporarily use vacant sites in Christchurch for community art projects (see www.gapfiller.org.nz).

4.2.2 Organised community responses

Participants reported that established community groups and organisations mobilised quickly and pragmatically, using whatever resources they had available to address community needs. Examples

included Te Whare Roimata (Inner City East), Te Rūnanga o Ngāi Tahu¹⁵ (marae communities), and the Christchurch Migrants' Centre and Canterbury Refugee Council (migrant communities).

Actions included establishing unofficial community hubs such as the Linwood Community Arts Centre (Inner City East) and the Christchurch Mosque, which became a hub for the Islamic community (migrant communities). These hubs were staffed by community workers and volunteers. They provided a central coordination point for receiving and distributing emergency supplies and information immediately after the earthquake. Some also provided a meeting place, food, and accommodation for displaced residents.

In some case studies (e.g. Lyttelton, Inner City East, marae communities), systems were set up to match skilled volunteers to practical tasks that needed to be done, such as checking and securing buildings. In other case studies (e.g. Shirley, migrant and refugee communities), community groups or other leaders organised volunteers to help clear silt. Some community organisations (e.g. Community House management and some ethnic associations) checked on the welfare of each of their members in the days after the February earthquake. In most case studies, community groups and leaders took on an advocacy role on behalf of their communities (e.g. to ask for water tankers or portable toilets in neighbourhoods that had been overlooked). A key role in migrant and refugee communities was translating official emergency-response messages into diverse languages.

In all case studies, community groups collectively solved problems and shared ideas and information through inter-agency meetings at the community level. For example, daily meetings were held at Rēhua Marae for agencies serving migrant and refugee communities. An organiser of these meetings said: 'Within two to three days, we had 60 to 70 people coming to every meeting.'

Beyond the initial emergency-response phase, community organisations continued to play a key role in connecting people (e.g. through recreational and memorial events); disseminating information; collectively solving problems; fundraising; and advocating on behalf of their communities. Supporting vulnerable residents was also a focus, including new initiatives such as delivering meals to the elderly, visiting homes to assess needs, and offering bus services for grocery shopping.

4.2.3 Responding according to Māori practices and values

The marae communities case study emphasised Māori practices and values as a vital part of the response.

Marae leaders and whānau members emphasised the Māori value of manaakitanga, which meant that Ngāi Tahu sought to care for all people living in their iwi area regardless of tribe or ethnicity. The opening of marae to wider communities exemplified this value. Participants reported that marae whānau worked tirelessly to support those in need. Their effort was supported by the Crown (central government) according to its relationship with the iwi under the Treaty of Waitangi (New Zealand's founding document). Te Puni Kōkiri (TPK), as a central-government agency with Treaty obligations, played an important role in resourcing and supporting marae-based earthquake responses.

Participants emphasised the values of whakapapa (kinship) and whanaungatanga (family connections) in prioritising whānau in early earthquake responses. Their prioritisation was consistent with that of non-Māori participants, who said that their first response was to check on family and close friends. Some marae participants spoke about living collectively with whānau after the earthquakes. A whānau group of eight people were still living together 16 months later, after being displaced from their rental

¹⁵ Te Rūnanga o Ngāi Tahu refers to the iwi authority (tribal council) that oversees the iwi's activities

properties. One of them said: ‘We get on, I mean we’ve grown up together anyway and the reason why we all lived close together was because that’s the family and that’s the biggest thing I think, eh.’

Marae leaders referred to the importance of kōrero (talking), especially ‘kanohi ki te kanohi’ (face to face). Ngāi Tahu organised for counsellors, social workers, and other support workers to be available at marae and in other communities to provide professional support and opportunities for therapeutic talk.

Other activities included: reciting karakia (prayer) at sites where lives had been lost; leading tangihanga (funeral) for families of various nationalities who had lost loved ones¹⁶; and centering response activities on the marae.

4.3 Effects of community responses on well-being

Many participants emphasised that community support had an immediate and powerful effect on well-being. Informal support had a particularly positive impact. Residents reported that just being together and helping one another provided reassurance, reduced feelings of fear and isolation, and gave a sense of belonging. For example, one community leader in Lyttelton said:

Just the sense of being part of a community – that people were out on the street talking to each other, asking questions, giving each other hugs...and getting together sometimes for meals and cups of tea...That’s a very helpful thing.

4.3.1 Community events

Organised events, such as concerts, festivals, and barbecues, were described as beneficial for well-being since they brought people together and provided fun moments and respite in what was otherwise a relentlessly grim situation.

4.3.2 Spiritual practices

The value of spiritual support was discussed particularly in the marae and migrant case studies. Some participants said that spiritual rituals, such as prayer meetings, were an important aspect of community support after the earthquakes. They described the rituals as calming and reassuring, and several people said that they valued the opportunity to grieve and reflect together at memorial events. Grieving was particularly related to loss of life, but also to loss of the city and homes.

Ngāi Tahu participants in the marae case study highlighted the role of Ngāi Tahu leaders and Māori religious and spiritual leaders in enhancing the well-being of affected individuals and their families. Māori spiritual practices, such as ritual blessings of places where people had died, karakia (prayer) and tangihanga (funeral ceremonies), helped both Māori and non-Māori to feel ‘safer and calmer’ afterwards.

4.3.3 Gaining strength from giving

Participants who had contributed to the community response – both volunteers and paid community workers – said that helping was good for their own well-being. Contributions were diverse, with individuals giving in ways that their skills allowed. Doing so counteracted feelings of helplessness and

¹⁶ Many of the people who lost their lives in the February 2011 earthquake were international students.

provided structure, purpose, and meaning at a time when ‘all the structure we’d ever known had been blown away’.

Various community leaders reported that acts of giving enhanced energy levels, which in turn helped people to contribute more, increasing community resilience.

Some participants commented that contributing to collective efforts helped them cope with their own trauma or depression. A community leader said:

I’ve seen it in a number of people, it’s had quite a profound effect on people finding that they could connect and that they could do things [for other people]...So I’m quite convinced that being able to stay [in your local community] and do things...it helps profoundly.

Participants in Inner City East and Lyttelton case studies, in particular, reported that many residents felt a strong need to contribute. They said that doing so was part of the healing process at both individual and community levels. An Inner City East community leader commented:

Right now there’s so much inaction and waiting [in Christchurch], and people feel quite disempowered about the fact that the whole city is stuffed...and it’s very depressing and I think people feel quite at a loss as to know what to do, like helpless. So getting involved with something, even though it’s small, it does make a difference, and for other people who aren’t necessarily involved but just [to] see it, [that] makes them feel positive, it makes them feel...healed and nourished.

Many Ngāi Tahu community leaders, who had provided support on marae, spoke about the positive impact of contributing in this way on their own well-being. Rēhua and Tuahiwi Marae hosted several overseas families who had lost sons or daughters in the February earthquake, holding a memorial service for them. A participant at Tuahiwi said it was ‘a real privilege’ to be part of that experience, and to be involved with people from many different cultures: ‘For me, it was just electrifying’.

Several Rēhua marae leaders reflected on the special time of the post-earthquake period:

When I think back now, even though it was difficult, it was really a beautiful time too, eh, that we were able to just be like whānau and manaaki [care for and host] all those people.

4.3.4 Perspectives on creative initiatives

Participants had differing views on creative earthquake-response initiatives. Many felt that spontaneous public art and creativity brought ‘colour and life’ and positivity, and symbolised resilience and regeneration. One participant said that art was nourishing and could lift people’s spirits or challenge them to think differently.

However, a few residents saw creative and morale-boosting initiatives as an impractical use of time and energy when there were more urgent needs to address.

4.3.5 Constraints to the effectiveness of community support

Most community leaders and volunteers reported feeling energised by their clients or communities, particularly when their efforts were valued by others. However, some felt burdened by their ongoing heavy workload, despite extra government funding being available to reflect that load. They also felt burdened by their additional responsibility and the complexity of the social problems they faced.

Some community members reported they lacked awareness of community initiatives or did not have the energy or ‘headspace’ to participate in them because of ongoing earthquake-related problems. This limited the positive impact of the initiatives.

Community support was also of limited benefit to those forced to move away from their neighbourhood. One displaced participant noted that people from close-knit communities are particularly vulnerable to the emotional impact of being displaced from support networks. She said in relation to her own situation:

I think I would have recovered faster from the experiences I’d had if I had been able to stay in my community and have my usual support networks physically around me.

4.4 Factors that affected community resilience

Analysis of the participants’ accounts indicates that eight main factors influenced community resilience, both positively and negatively.

Factors:

- Community connectedness
- Opportunities to get together
- Community infrastructure
- External support
- Official decision-making processes
- People’s well-being
- Survival skills
- Extent of adversity

Note: Community responses to earthquakes are both a factor contributing to community resilience and an outcome of resilient communities. Because responses are discussed in section 4.2, they are not included again here. We consider them further in section 5.2 when discussing the research findings (Discussion section).

Before presenting our findings under each factor, we first summarise participants’ understandings of resilience.

4.4.1 Participants’ understanding of resilience

We asked participants how they would define community resilience or a ‘strong, supportive’ community. They gave a range of responses, but they generally showed a shared understanding of the meaning.

Broad consistency was important as understandings of resilience formed the basis of discussions about the factors that helped or hindered community resilience.

Many participants responded by suggesting characteristics of a resilient community, rather than defining resilience per se. Connected, self-determining, caring, and supportive were common elements, as well as being focused on shared experiences.

The marae case study discussions did not focus on defining resilience specifically, although participants linked resilience with the ability to plan ahead, and marae coping well and autonomously for an extended difficult period.

Resilience as a process

Several participants referred to community resilience as a process or 'journey', consistent with our definition. One said:

I think I would like [resilience] to be turned into a verb...The resilience is not an end product...If we could have [resilience] as a more process idea, then that's an important thing to me about a strongly supportive community.

Several referred to positively adapting to, or 'bouncing back' from, adversity. This is also consistent with our community resilience definition. A Shirley resident, for example, described resilience as 'getting through' and past 'something completely abnormal', and 'being able to manage it'. Another typical comment was that community resilience was 'about building [community after] knock-downs and...it's not [about] how many times you get knocked down, it's how many times you get up'.

Some participants suggested that local action and an awareness of community needs were defining characteristics of resilience. One said that resilience involved 'being able to accept that it's actually going to be hard, and being realistic about what the journey's going to be like'.

Finally, many emphasised that building resilience in communities takes time, especially after a disaster. Participants in all six communities reported that many people still faced significant hardship 16 months after the February earthquake. They all understood the huge challenge of repairing and rebuilding Christchurch.

4.4.2 Community connectedness

In all six case studies, a sense of community and social connectedness clearly supported community resilience. For example, one participant said:

You need to have a sense of community before the disaster...because you do get that initial surge of 'community togetherness' in the immediate aftermath when the adrenalin is still pumping – but it can dissipate...once the going gets tough and you're getting grumpy and irritable or stressed out. If that sense of community is fragile, then it's going to be harder to get through that bit. So having that stronger sense of community beforehand I think is certainly important.

Many participants reported that their communities were very connected before the earthquakes, which helped them to adapt afterwards. Especially important were informal connections, e.g. between family, friends, and neighbours. In marae communities, whānau (family) and whakapapa¹⁷ relationships were highlighted. Pre-existing communication networks, e.g. digital communication via Facebook and texting, were also important, according to participants.

Lyttelton and Inner City East had a history of community action and collective problem-solving, and a 'culture of volunteerism'. Residents participated in community activities, neighbourhood events (e.g. street parties), residents' associations, and volunteer groups. After the earthquake, they continued to be involved, and wanted to 'have a say' about their future, taking part in official consultations like the council's Share An Idea¹⁸ process. Participants highlighted the key role of proactive community-led

¹⁷ Whakapapa refers to: kinship and historical relationships that connect members of whānau, hapū, and iwi

¹⁸ Share An Idea refers to: the Christchurch City Council's six-week public-engagement programme in 2011, which aimed to seek ideas from the public about redeveloping Christchurch's central city.

initiatives that had a 'just do it' attitude, and community leaders reported high energy and support for them.

Earthquake effects on community connectedness

In all case studies, participants reported a post-earthquake increase in community connectedness, or at least 'friendliness', especially in the immediate aftermath. They spoke of the powerful effect of this connectedness in the early weeks, when people acted selflessly and were more caring and generous than usual.

Participants also identified negative impacts of the earthquake experience on sense of community. Loss of housing, displacement of residents, and demographic changes reportedly reduced the sense of community, especially in Shirley and migrant and refugee communities. Both communities reported that many people were tending to 'stay at home' in reaction to the earthquake experience, contributing to social isolation.

4.4.3 Opportunities to get together

In discussing what contributed to community connectedness and therefore resilience, many participants focused on the role of organised gatherings such as marae ceremonies, concerts, community days, and memorial events. Inner City East, for example, arranged regular activities to 'keep people coming together, talking together' as part of earthquake recovery. Many such community activities were continuing at the time of our research fieldwork, approximately 16 months after the February earthquake.

Incidental opportunities to meet others in the community were also emphasised, such as those facilitated by the compact, pedestrian-friendly layout of Lyttelton.

In comparison, the need for opportunities to bring people together was not a theme in the Shirley case study. Its community-based organisation stressed that it had done its best to involve the community in events, but had achieved only limited participation. Shirley participants were more focused on discussing practical or material needs such as housing. However, they did comment on the loss of a valued weekly get-together when a local church was closed because of earthquake damage.

Earthquake effects on opportunities to get together

Across the case studies, participants stressed the adverse effect of losing public facilities such as community halls, shops, libraries, parks, cafes, and pubs because of earthquake damage. Participants said that this loss reduced opportunities for social interaction, both organised and incidental, which affected social connectedness and therefore resilience.

4.4.4 Community infrastructure

Participants agreed that strong pre-existing community-based organisations and community leadership helped their communities to adapt after the earthquakes. Facilities such as marae, community centres and local halls, which facilitated social networks, were also seen as important.

Ngāi Tahu, for instance, was able to mobilise quickly because of a clear tribal infrastructure based around the marae, led by the chair of Te Rūnanga o Ngāi Tahu¹⁹ and 18 Papatipu Rūnanga (local tribal council) representatives.

¹⁹ Te Rūnanga o Ngāi Tahu is the iwi authority (tribal council) that oversees Ngāi Tahu's activities

Marae participants highlighted the key role of marae as hubs for providing emergency support and hospitality. The long-standing emphasis of marae on manaakitanga – hospitality and caring – helped them mobilise quickly and offer support to ‘the whole of the community’. Indeed, migrant and refugee leaders highlighted leadership from, and partnership with, Ngāi Tahu, which meant that migrant groups were included in the emergency response at Rēhua Marae.

Lyttelton and Inner City East participants noted the importance of having pre-existing committed leaders who knew the local community well and had a history in community-development²⁰ projects.

Many participants stressed that good communication between community organisations and the people they serve had been very helpful. Successful communication channels included community radio, websites, newsletters, and email networks.

Some communities had formal systems for organising volunteer labour. Lyttelton’s Timebank, for example, facilitates skill-sharing between community members. People receive time credits for the work they do for others and, with the credits they gain, they can ‘buy’ someone else’s time. This system was extremely helpful in the aftermath of the February 2011 earthquake because it brought with it a database of about 400 community-minded people whose skills could be matched with needs. Inner City East had a similarly helpful pre-existing Labour Group, whereby volunteers helped others with physical work such as house-shifting and lawn mowing.

Lack of infrastructure – a barrier to resilience

Conversely, a lack of community infrastructure was a key barrier to resilience. For example, Shirley had few community organisations and community workers compared with Inner City East and Lyttelton. Shirley participants said that the earthquakes further reduced this capacity as they lost churches and community services. However, they stressed that the remaining few organisations were as effective as possible given their limited resources.

Earthquake effects on community infrastructure

In all case studies, participants said the earthquake experience had led to stronger collaborations between community organisations, and new networks and partnerships. A new network, for example, is the CanCERN²¹ network of community-group representatives, which aims to encourage community involvement in recovery processes and to work in partnership with recovery agencies. Participants also reported that new, natural leaders emerged.

On the negative side, community leaders and residents reported that the earthquakes intensified the demands on community organisations, which were often already under-resourced. For example, in the marae communities case study, some whānau worked long shifts (e.g. up to 24 hours) cooking, feeding, and hosting displaced people. Workers in Community House said that their workloads and stress had increased because of the earthquakes.

4.4.5 External support

In all six case studies, community organisations stressed that they did not operate in isolation but had much support from external agencies, including central-government agencies and local councils. In

²⁰ *Community development* refers to: communities working together to identify their own needs and to create shared solutions to meet those needs (collective problem-solving)

²¹ Canterbury Communities’ Earthquake Recovery Network

particular, participants felt that the community's ability to adapt was enhanced by funding support, practical support, and advocacy, e.g. from local members of Parliament and CanCERN). Community leaders said it was helpful when external agencies listened and had regard for local knowledge and priorities.

Examples of helpful support from external agencies:

- Funding and practical support from Te Puni Kōkiri (TPK), and various iwi (tribes) from around New Zealand, helped Māori communities. TPK's support included expanded funding for Kaitoko support-worker positions to help affected whānau (marae communities case study).
- Community leaders in two case studies (migrant communities and Shirley case studies) reported that Housing New Zealand Corporation tenancy managers were responsive when they raised concerns about families with housing problems in the weeks after the disaster.
- Funding and personnel support from the Canterbury Earthquake Recovery Authority (CERA) and Christchurch City Council helped secure a new Community House building (Community House case study).
- Migrant and refugee leaders praised the Department of Labour and Settling In (Ministry of Social Development) in particular, along with support from Ngāi Tahu (migrant communities case study).

In several case studies, participants noted the significant positive impact of relatively small investments in grassroots initiatives, e.g. seeding grants of less than \$1000 (per event) to run community events. Private donations were also mentioned, especially in Lyttelton. Practical support from the FARMY Army and Student Volunteer Army was highlighted in most case studies.

Inadequate official support – a barrier to resilience

Immediate aftermath

On the negative side, participants in several case studies reported an absence of official disaster relief. As noted above, Shirley participants felt forgotten by authorities since official services, such as water and portable toilets, were reportedly lacking in their community. Inner City East residents living within the central city cordon also reported a lack of official support immediately after the February quake.

The migrant participants reported that vital official emergency-response information was initially provided solely in English, hindering their access to it. Government funding subsequently helped migrant groups to translate emergency information into diverse languages.

Some marae leaders felt that emergency financial support for marae (from Civil Defence and other emergency authorities) did not sufficiently recognise their expanded role in hosting multiple groups and individuals, particularly the associated costs. One participant said: 'I don't believe [the marae has] been given the credit for [what it did after] that first earthquake.'

Ongoing or recent concerns

Participants in several case studies discussed perceived barriers to accessing external support. For example, some said that accessing Red Cross emergency grants was difficult. A whānau member reported that 'the process was quite a long [one] to even get registered with Red Cross'.

Income support and housing were key concerns. Participants in two case studies (Shirley and Inner City East) believed that Housing New Zealand Corporation (HNZC) had become harder to contact because 'they've taken away [public access to] their offices, so now you have to ring up', and residents reported

problems getting through on the free-phone line. Shirley residents reported many ongoing issues with HNZN, including slow repairs and poor communication with tenants.

An Inner City East community leader said that people in disadvantaged communities had less capacity to self-advocate:

The central city east, where Te Whare Roimata is, through Shirley, Avonside, is a much needier community. And they're the little people, they're the people who haven't got the influence, who don't know how to pick up the phone to a city councillor and bang on the table at a government department – or if they do, they're regarded as a nuisance.

Frustration with slow decision-making on things like post-earthquake land-zoning²² (which affects residents' decisions on repair, rebuild, and future residence) and insurance was highlighted in several case studies. Participants widely reported that many residents were still living in unrepaired or overcrowded homes as a result. One Lyttelton community leader commented:

People are still living in cold, damp houses without proper heating and [with] temporary repairs that really aren't suitable. [Those conditions] might have been acceptable for a few months, but certainly a year and a half later isn't at all acceptable. And I'd imagine that's affecting people's health and people's well-being, and certainly its affecting people's mental health.

A common theme was that the reported inflexibility and 'red tape' of official organisations restricted community resilience. Community leaders said that rigid bureaucratic processes and poor communication, including about future city planning and consent issues, sometimes got in the way of community-led recovery efforts. Lyttelton participants said that several community proposals, such as fixing the local swimming pool, were 'on hold' pending council decisions. Some participants reported that the compliance requirements and costs of the council's consent process were hindering business recovery.

4.4.6 Official decision-making processes

Official decision-making, and the community's involvement in it, was mostly discussed in the three geographic case studies: Lyttelton, Inner City East, and Shirley.

Lyttelton and Inner City East participants were positive about some official consultation processes, such as early planning for Lyttelton's future, led by the Community Board. Some said that contributing to such processes helped the community to heal.

Inner City East participants said that the council's Share An Idea²³ consultation had been positive and useful. However, the subsequent process led by the Canterbury Earthquake Recovery Authority (CERA) was reportedly frustrating and disempowering, and participants felt uninformed of progress.

In Shirley, participants spoke of proposed meetings between Housing New Zealand Corporation (HNZN) and local tenants, in which residents were keen to participate. However, the meetings reportedly did not go ahead. There was a perception that this was because HNZN was unwilling to engage.

²² More information on land zoning is available at: <http://cera.govt.nz/land-information/land-zones>

²³ *Share An Idea* refers to the Christchurch City Council's six-week public-engagement programme in 2011, which aimed to seek ideas from the public about redeveloping Christchurch's central city.

4.4.7 People's well-being

Participants in several case studies said that the well-being of individuals and whānau influenced their ability to contribute to the community, in turn affecting resilience at that level.

Some commented that when people could or did contribute, they often gained energy and improved their well-being, giving them even more energy to contribute.

But a common problem was chronic stress – from aftershocks, poor housing conditions, uncertainty, difficulty accessing support, and so on – causing adverse health effects such as depression, anxiety, and fatigue. Marae leaders and whānau members, for example, raised concern about the mental and spiritual well-being of their people.

Some participants pointed to the impact of earthquake-related stress and trauma on their community's ability to get back on its feet. A Lyttelton participant felt that trauma was a barrier to city-wide resilience: 'An entire city of traumatised people does not work very well.'

4.4.8 Survival skills

Across case studies, some participants reported that pre-existing survival skills had helped people to adapt as a community. Participants from marae communities, Community House, Shirley, and Inner City East talked about the survival skills that came from being 'used to hardship', especially poverty.

Several participants of varying ages said that they felt older people had better survival skills than younger people because of their life experience. At the same time, many said that they had appreciated the support and skills of young people in the Student Volunteer Army, and commented that children and young people had contributed well in the earthquake response and recovery.

Some participants, particularly in migrant and refugee communities, commented that adaptability and previous disaster experience had benefited community-level coping. People also reported that lessons learned from the original September earthquake increased the community's capacity to prepare for, and adapt after, subsequent earthquakes.

According to many participants, opportunities for respite and fun helped communities to cope and adapt, along with humour and an optimistic outlook.

Diversity of needs and skills

Some Inner City East participants said that pre-existing diversity in the area helped the community to connect and adapt post-earthquake, particularly diversity of ages and living situations. This was because neighbours had complementary skills and differing needs.

Diversity, and acceptance of it, was part of the community's character, for some Inner City East participants. A community leader said of the area:

It's a very eclectic community...people from all sorts of socioeconomic [backgrounds] I suppose...they all live here because they want to live here and they like that [diversity]...I find that quite special...I mean, they're accepting of the fact that there's some, you know, there's some pretty rough characters walking around all the time.

4.4.9 Extent of adversity

Participants noted that the effects of the earthquakes and subsequent challenges varied widely within and across communities. In general, those who experienced more extreme and/or longer-term adversity found adapting more difficult. Many residents and community leaders who faced ongoing problems, such as unemployment and loss of accommodation, understandably found it more difficult to cope than others.

Displacement varied, as did its flow-on effects for communities. The Avon Loop area in Inner City East was almost entirely red-zoned, meaning that most residents were required to move within a year. Participants in several communities reported that displacement resulted in various difficulties, including demographic shifts, dramatic changes in school rolls, land use changes, and – ultimately – problems for organisations in planning service delivery.

Marae leaders noted that Māori communities were hard hit as many lived in badly-affected areas such as the eastern suburbs and Kaiapoi. Shirley residents were among the most affected by damage to land, property, and services, including by liquefaction. Residents had to cope for many weeks or even months without basic services such as electricity and running water, and dust from liquefaction was reportedly still a problem 17 months after the February earthquake. Participants from Shirley, Inner City East and marae communities expressed concern about continuing housing insecurity and the loss of affordable housing.

On the other hand, some participants said that timely remedial responses from authorities averted further hardship. For instance, Kaiapoi whānau felt that the local Waimakariri District Council prevented exacerbation of the earthquake's effects by providing water and portable toilets in a timely fashion. In some communities, such as Lyttelton, social support – especially informal – was reported to have had a 'cushioning' effect. For example, one community leader said that losing her home felt less stressful than expected because she was cared for by her neighbours.

4.5 Advice for other communities

We asked participants what advice they would give to other communities coping with disasters and what things could have been done differently in Canterbury.

4.5.1 Before disaster strikes

Build resilience now

Participants emphasised that households, communities, and official agencies need to prepare for disasters and build resilience before the disaster occurs. Once disaster has struck, it is too late to make a plan or build networks. They said that pre-existing community networks, organisations, leadership, and systems are the foundations of community resilience. A participant in Lyttelton commented:

A lot of what happened in Lyttelton before the earthquake was the key to how we were so resilient after. Strong, active community groups, strong leaders within the community, a good level of knowledge about assets and resources within the community in terms of people...meant they were able to quickly swing into action when they were needed.

Another emphasised that community building is not only important for disaster preparedness, but has everyday benefits for communities:

I think you need to work on [community building] all the time, and don't work on it to prepare for a disaster, work on it to prepare for your life. Just [do it] because it is the right thing to do and it feels good.

Collaborate with the grassroots in disaster planning

Participants said that official agencies, particularly those in local and central government, need a greater understanding of, and links to, the communities they serve. Official disaster plans and systems need to take into account the diversity and differing needs of the population.

Participants said that when forming disaster plans, authorities need to collaborate with grassroots community organisations, for example:

- non-English-speaking communities – to establish how to communicate with them in a disaster
- marae – to work out how iwi efforts to help displaced people can be supported, e.g. by appropriate foods for marae-style eating rather than generic Civil Defence catering.

According to participants from Inner City East and Community House, authorities should also collaborate with communities to plan *before* potential disasters how to house vulnerable and displaced people.

Get to know your neighbours

Participants said that, aside from having emergency supplies (including water, food, a torch, cooking equipment, and a battery-powered radio), households should get to know their neighbours and wider community.

Organising and participating in street parties, community gardens, and Neighbourhood Support were suggested as community-building ideas, as was volunteering. One resident said that people should put into their community what they want to get out of it.

Put community-based support systems in place

According to participants, communities need to be aware that disasters can and do happen at any time, and external support may not arrive immediately. For this reason, it is essential for communities to:

- have identified leaders
- know what resources will be needed in a disaster and where they are located in the area
- know where vulnerable people live and/or have a database of community households
- establish and support organisations such as a local Civil Defence group, residents' associations, ethnic associations, community-development organisations, and volunteer ambulance and fire brigades
- set up communication networks (e.g. community radio), including between community groups and official agencies.

Improve training and communication systems

Several participants said that the Government should help communities prepare through public education campaigns and by providing civil-defence training.

Participants said face-to-face interaction with support agencies is important, and the provision of correct and timely information (without relying on technology) is critical. Some participants said that New Zealand needs to have better back-up communication infrastructure so that information can flow

quickly between authorities, key community organisations, and neighbourhoods, even when electricity is out.

Empower people and facilitate self-governance

A theme in two case studies, Lyttelton and Inner City East, was the need to foster participatory democracy at the community level – to ‘empower people to have a say’. One community leader from Lyttelton questioned whether some community boards represented too large a population (e.g. the Shirley/Papanui community board, which represents 60,000 residents). Several recommended greater devolution of powers to enable local action and community self-governance.

Foster a community spirit

Participants said that local and central authorities could strengthen local identity and a sense of belonging by:

- hosting community events
- enhancing the distinct character of the built environment
- enacting policies to reduce the gap between rich and poor, since inequality fractures communities and undermines resilience.

4.5.2 In the event of a disaster

Let the community lead

All participants agreed that citizens need to work together and support each other in a disaster. Some said: ‘Don’t be afraid to ask for help’. Lyttelton, Inner City East, and marae participants emphasised the importance of supporting local community organisations, and taking action without waiting for help from authorities: ‘Just get on and do your own thing’.

Many participants recommended a community-driven recovery approach, in which communities, including iwi, identify their own needs and solutions, and authorities support local action. This is consistent with the Treaty of Waitangi²⁴ partnership between iwi and the Crown, and the emphasis on tino rangatiratanga (self-determination). An Inner City East community leader said:

Actually [authorities] need to turn [the traditional model] upside down, and find out what residents want and need, to find enduring solutions...The whole top-down model I don't think works very well at the best of times, let alone [in a quake]. It might work [immediately] post a disaster, because you do need somebody making decisions, but in the recovery phase you need to include the community, and allow them to play a role in the rebuild of their city.

Establish a local hub

Participants said that setting up a community hub, or welfare centre, is vital to coordinate emergency efforts and meet people’s basic needs (e.g. for food, shelter, medical treatment, information, and social support). A local location would be helpful since people often fear going far from home for information and supplies. Some participants thought that ethnic minorities should be supported to set up their own culturally appropriate welfare centres, e.g. so that Islamic people could pray in an appropriate, safe place.

²⁴ Treaty of Waitangi is the founding document of Aotearoa New Zealand, which sets out rights and responsibilities of the Crown (central government) and iwi

House people in their home community

Most participants thought that people who have lost their homes should be accommodated *in* their original community if possible, through billeting or ‘a caravan in everybody’s backyard’, for example. This would allow people to stay connected to their support networks, schools, and so on.

Set the priorities – food and shelter

Community leaders had differing views about the priorities in the recovery process – for example, they debated the place of business recovery. However, most agreed that ensuring adequate food and housing for everyone was more important than providing ‘flashy’ sports facilities, for example.

Respect diversity in communities

Many participants thought that organised opportunities to come together as a community were important. Others noted that people have different coping mechanisms (e.g. they may prefer to be alone or to leave the disaster zone, or they may want to take part in creative arts initiatives), and all ways need to be respected and supported.

Improve government–community relationships

A strong theme was the need to improve the relationship between community organisations and government agencies (especially local government). That relationship, people said, should be characterised by transparency, good communication, partnership, and respect for local knowledge, skills, and priorities. According to participants, official agencies sometimes did not engage or communicate well with communities. Some community leaders felt government agencies needed to spend more time in local communities and get to know them better.

At the same time, our research provides many positive examples of collaboration between community and government, such as the partnerships between Te Puni Kōkiri and marae. Many participants praised individuals in government agencies and appreciated funding and other support.

The next section discusses and reflects on the research findings.

5 Discussion

In this section, we reflect on the main factors that affected community resilience and compare our findings with international literature. We then discuss mental well-being and socioeconomic hardship, as two additional themes that emerged in our fieldwork, also relating our findings to the literature.

Outline of discussion section

- 5.1 Community resilience – a key international focus
- 5.2 Factors that affect community resilience
- 5.3 Mental well-being
- 5.4 Socioeconomic hardship
- 5.5 Summary of discussion

5.1 Community resilience – a key international focus

Internationally, enhancing community resilience is considered the key to preparing for, responding to, and recovering from disasters and other crises (Castleden et al 2011, Tierney 2008). New Zealand's National Civil Defence Emergency Strategy highlights the importance of building community resilience in its goals and objectives (Ministry of Civil Defence and Emergency Management 2008).

Overseas governments, including in the United Kingdom (UK) and United States (US), have shifted their focus away from 'preparedness programmes' to the understanding that community resilience relies on effective collective action and local organisation *before* a crisis develops (Bach et al 2010). Many countries now take a generic 'all hazards' approach to prepare for a wide range of crises, including natural disasters, war, terrorist threats, and extremist violence (Bach 2012, Bach et al 2010).

Despite agreement on the need to build community resilience, research into how and why it develops is lacking (Mooney et al 2011, Vallance 2011, Cutter et al 2010, Djalante and Thomalla 2010, Tierney 2008). Our findings, therefore, make a valuable contribution to understanding how to build resilience in a New Zealand context, and internationally.

5.2 Factors that affect community resilience

The four key influences on community resilience, based on analysis of our findings, were:

- pre-existing community connectedness and infrastructure (organisations, voluntary or grassroots groups, leaders, networks, facilities)
- community participation in disaster response and recovery
- community engagement in official decision-making, and
- external support from organisations and authorities outside the community.

5.2.1 *Pre-existing community connectedness and infrastructure*

Our findings support international evidence that pre-existing community connectedness and infrastructure – including indigenous infrastructure along kinship lines – are critical for successful disaster preparedness and response (Bach 2012, Bach et al 2010).

Differences in responses and outcomes in our six case studies can be attributed largely to differences in connectedness and infrastructure before the earthquakes. For example, the lack of community facilities

and networks in Shirley, compared with Lyttelton and Inner City East, made it difficult for residents to adapt. Inner City East has a similar socioeconomic profile to Shirley, suggesting that the pre-existence of community infrastructure may counter the adverse effects of disadvantage.

Community-development approaches

Our research reinforces international evidence that supports community-development approaches to resilience-building (e.g. Mooney et al 2011, Djalante and Thomalla 2010, Paton et al 2008).

According to literature, experience of collective problem-solving not only empowers community members, but leads to more successful disaster recovery (Mooney et al 2011, Chandra et al 2010, Paton et al 2008). Disaster experts recommend that risk-reduction activities be integrated into wider community-development initiatives (e.g. Paton et al 2008).

Our case studies showed that communities that identified their own needs and solutions were well placed to adapt. Participants pointed to the success of community-development approaches, and many of their suggestions were consistent with international literature, e.g. the need to build community connectedness and infrastructure before a disaster strikes (Bach et al 2010). Participants' advice to foster participatory democracy and community spirit is in line with the principles of community development, e.g. the importance of common identity, manageable scale, and collective action (Diers 2004).

Community development is seen as a useful framework for building community resilience both in 'ordinary' times and after a disaster. Community-development projects are important for all communities (not just disadvantaged ones) to build resilience to many potential crises and risks.

5.2.2 Community participation in disaster response and recovery

Our findings highlight the importance of community participation – both informal and organised – in disaster response and recovery, again supporting literature in this area (e.g. Global Health Workforce Alliance 2011, Vallance 2011, Bach et al 2010, Ministry of Civil Defence and Emergency Management 2008). Local, self-organised efforts are effective in preparing for crises, rapid response, and faster recovery (Bach et al 2010).

Informal and organised responses

Almost all participants highlighted the key role of informal support, especially among neighbours, and most also emphasised the role of community organisations in providing more organised support. We found that most organised community responses were led by pre-existing community organisations, though new community-based initiatives (e.g. the Student Volunteer Army and Gap Filler) have had a high public profile, e.g. in media coverage.

Interestingly, another research project with Canterbury residents had a different finding – that many pre-existing community groups did not meet or take action after the earthquakes (Mamula-Seadon et al 2012). Participants in that study reported that, early on, formal community groups were helpful – but not essential – because of the extent of informal support.

The difference in findings may be explained, at least in part, by differing selection and recruitment strategies. The cited research project recruited a random sample of residents. In contrast, we used intentional sampling to recruit both community leaders and residents, drawing in part on the networks of selected organisations.

Therefore, many – but not all – of our participants were involved in community organisations. This intentional recruitment resulted in a focus on the actions of formal community organisations and small residents' groups.

Innovation versus consistency

Our research raised the key role of innovative, 'do-it-yourself' (DIY) responses, led by community members. Similarly, other researchers (e.g. Tierney et al 2008) have identified improvisation as a contributor to community resilience. When individuals or organisations improvise, they depart from the usual norms and rules and display creativity in response to disaster challenges.

Some government agencies supported community innovation. Part of the official response to the earthquakes was to 'release' contracted community organisations from obligations so that they could redeploy their staff and resources to address relevant community needs, for example.

On the other hand, many participants in the marae case study stressed the importance of time-honoured Māori cultural practices in supporting community resilience. This is not to say that flexibility was inappropriate or not used, but our findings suggest that consistency and stability in applying cultural values and practices were also important.

'Go where the energy is' – willingness to participate

A principle of community-building, highlighted in international literature, is 'start where the people are' (Diers 2004). Lyttelton community leaders echoed this, saying that their strategy was to 'go where the energy is'.

Shirley differed from Lyttelton and Inner City East in that organised post-quake community events were not well attended. International findings suggest that people's willingness to participate in collective action is directly related to their belief that it will achieve results (Diers 2004). This idea is consistent with a community leader's view that lack of participation in Shirley was because 'their experience has been that their voice hasn't been listened to in the past, so why should it be listened to now?'

The difference may also be explained by differing community priorities and needs. Shirley residents *did* act collectively on immediate practical concerns, e.g. housing problems and portable toilets, as these were the community's priorities at the time.

5.2.3 Community engagement in official decision-making

In our research, participants in the more engaged communities said that their communities wanted to initiate local action and be involved in local and city-wide recovery, including planning for the future.

In the literature, community engagement²⁵ and empowerment (e.g. self-determining actions, self-governance, greater involvement in official decisions) is seen as vital to building resilience (e.g. Mooney et al 2011). New Zealand guidelines on community resilience best-practice acknowledge the effectiveness of community engagement and empowerment (Ministry of Civil Defence and Emergency Management 2010).

However, according to Lyttelton and Inner City East participants, authorities' poor communication and bureaucratic inflexibility restricted local engagement and self-determination. In the case of the council's

²⁵ *Community engagement* is the process of building relationships with community members as partners, to plan and work towards change in a community. Community engagement in official decision-making involves building relationships between community members and authorities

Share An Idea engagement process, our fieldwork was carried out before the Canterbury Earthquake Recovery Authority (CERA) had released its Christchurch Central Recovery Plan (July 2012)²⁶, which may have been a time when people felt especially frustrated.

Community engagement enhances well-being

Our findings suggest that a sense of control and self-determination – instilled by becoming involved in community action and official decision-making – can enhance people’s well-being, in turn meaning that they are able to contribute more.

Research with nearly 200 tribal groups in Canada found that people who were actively involved in tribal development and activism, with a high sense of self-determination, had lower rates of mental illness and suicide (Chandler and Lalonde 1998).

Sense of powerlessness

Residents and community leaders in Shirley expressed a sense of collective powerlessness. Similarly, many Inner City East participants said they felt disempowered (particularly by their dealings with authorities over future land use), even though their community had stronger pre-existing infrastructure and connectedness.

The sense of collective disempowerment in these cases contrasted with a reported ‘culture of possibility’, and sense of self-determination, in Lyttelton. However, Lyttelton participants – both residents and leaders – also expressed frustration over perceived bureaucratic barriers to community action and the powerlessness, as they saw it, of the community board.

Differences in socioeconomic profile may be one explanation for this finding. Shirley and Inner City East have relatively high levels of deprivation, potentially contributing to a sense of disempowerment. Lyttelton’s long history of collective action and self-governance, on the other hand, perhaps supported the sense of self-determination and empowerment in this community.

Community perceptions of support and engagement are important

Our findings highlight that perceived support affects well-being, which is consistent with literature (e.g. Thoits 2010, Ozbay et al 2007, Wilkinson and Marmot 2003). Community perceptions matter because they can impact on a community’s resilience. Individuals and communities that felt well-supported, heard, valued, and acknowledged by officials were better able to adapt than those that felt unsupported, ignored or unacknowledged. This finding has implications for how authorities communicate with communities and prioritise actions after disasters.

5.2.4 External support

In all six communities, actual and perceived support from outside the community was a key factor affecting resilience. In general, high levels of external support increased community resilience. The Government made a decision after the earthquakes to channel funding and resources through community organisations, rather than directly to affected households via government agencies. Hence, new funding streams became available to assist communities in their local responses. This support for community groups can be seen as part of the official response.

²⁶ CERA’s Christchurch Central Recovery Plan (2012) built on the findings from the council’s 2011 Share An Idea public engagement process

Importance of partnerships

Partnerships between authorities and communities are emphasised in international literature (e.g. Bach et al 2010), and our research found that such partnerships helped communities to adapt. Partnerships between Ngāi Tahu and Te Puni Kōkiri (TPK), for example, are consistent with the Treaty of Waitangi (New Zealand's founding document), and the iwi has continued to work alongside authorities to contribute their resources to the earthquake recovery (e.g. Kipa 2011).

Lack of support

In our case studies, differences in resilience may be partly attributed to differences in actual and perceived support. In the Shirley case study, for example, the perceived lack of official support compounded a pre-existing sense of marginalisation, exacerbated disadvantage, and hindered community adaptation over time.

The reported lack of official response in some areas, especially early on, is consistent with other research findings from the Canterbury earthquakes (e.g. Paton et al, in press). Initially, emergency services focused their attention on the central business district, where there were many casualties and trapped individuals (Mamula-Seadon et al 2012).

Constraints affecting external agencies

Strong pre-existing community infrastructure, e.g. on marae and in Lyttelton, meant that there was a visible local response, which external agencies and individuals could support. In areas like Shirley, however, with relatively few community organisations (Christchurch City Council 2011), the infrastructure to distribute information, money, and supplies from outside the community was much more limited. This lack of infrastructure may have made such areas somewhat 'invisible' to external agencies.

The external agencies that helped communities were often dealing with their own challenges, including property loss, damage, and displacement, and individual government and council workers were personally affected by the earthquakes. Many participants acknowledged this, and some commented that the authorities, like community organisations, had done an excellent job given the resources available and inherent challenges of the situation.

5.3 Mental well-being

Our findings show that many known determinants of mental well-being, e.g. stress, physical security, financial security and sense of control over one's life (Keleher and Armstrong 2005, Cooke et al 2011, Wilkinson and Marmot 2003), were negatively impacted by the Canterbury earthquakes. Many participants experienced ongoing stress, because of continuing aftershocks and uncertainty, adversely affecting both mental and physical health (Thoits 2010, Wilkinson and Marmot 2003).

Yet, our research also suggests that community responses can help individuals and whānau/family to cope, and even to thrive, following a disaster. Participants said that actual and perceived support (the sense that help would be there if needed) from neighbours and community organisations made a large difference to people's ability to cope.

These findings align with the assertion, in an international literature review, that: 'Psychological health is both essential for and a desired result of community resilience' (Chandra et al 2010).

5.3.1 Indigenous well-being

In Māori contexts, the individual is understood as integrally woven into the collective fabric, based on whakapapa (kinship) and relationships. This was reflected by Māori participants in our study. Kinship relationships are known to contribute to indigenous well-being (Kral 2003, 2009, Kirmayer et al 2003).

Research in other countries, such as Canada, links indigenous resilience and well-being with cultural continuity, and community control and action (e.g. Ulturgasheva et al 2012, Kral and Idlout 2009, Allen et al 2009, Chandler and Lalonde 1998). In Māori and other indigenous literature, community connectedness is also a central concept (e.g. Kipa 2011, Fleming and Ledogar 2008). Our participants' accounts were consistent with these understandings of indigenous well-being and resilience.

5.3.2 Spiritual and cultural well-being

As noted, the positive effects of spiritual and cultural rituals, both individually and collectively, were discussed in our case studies.

Research confirms that religion and spirituality are associated with improved physical and mental health outcomes (McIntosh et al 2007). A national United States study, on responses to the 9/11 terrorist attacks, found that participation in religion, and a subjective commitment to spiritual or religious beliefs, independently predicted better health outcomes (McIntosh et al 2007).

5.3.3 Social support and post-traumatic growth

It is a well-established fact that social support can reduce the negative impacts of stressors (Ozbay et al 2007, Thoits 2010, Wilkinson and Marmot 2003). Our findings suggest that the cushioning effect of social support may also hold at the collective level, and that community well-being can be enhanced by perceived and actual support from outside the community.

These findings align with the literature on 'post-traumatic growth', which refers to the experience of positive change that emerges from the struggle with highly-challenging life crises (Tedeschi and Calhoun 2004). Factors associated with post-traumatic growth are social support, and 'thinking through' or 'talking through' the events over and over (Tedeschi and Calhoun 2004).

5.3.4 Giving, connecting, and being active

Our findings suggest that community-based support enhanced well-being and sense of belonging for both givers and receivers. Research (e.g. Peres et al 2007, Post 2005) shows that altruism has well-being benefits for the giver.

Mental well-being is enhanced 'when an individual is able to achieve a sense of purpose in society, and thus, contribute to their community' (Aked et al 2009). Hence, the act of contributing may be central to adapting to adversity and building community resilience, e.g. by helping to counteract the sense of powerlessness and loss of structure that many experienced.

People have differing ways of coping with trauma, and these all need to be recognised and supported (Bonanno 2004). Some of our participants found that keeping busy and 'throwing themselves' into community work 'kept them sane' and stopped them dwelling on the enormity of their loss. Others felt a strong need to talk through their experiences as a way of coming to terms with what had happened. This was often facilitated by involvement in community activities, which gave opportunities for social contact and mutual support.

These examples illustrate *connecting, giving* and *being active* – three of five ‘ways to well-being’ identified in a major UK study on ‘mental capital’ (Aked et al 2009). Many participants emphasised these three as effective coping strategies, and several also referred to *learning* and *taking notice* (the other two evidence-based strategies to enhance well-being).

5.3.5 The ‘honeymoon’ period

Our findings show that the disaster context provides special opportunities for connectedness, sense of belonging, and altruism – which all enhance well-being. This may help to explain the ‘honeymoon period’ in the literature (e.g. NSW Health 2000) and evident in our own findings, e.g. participants’ reflections that the post-quake period was ‘difficult [but] it was a really beautiful time, too.’

Individuals had an opportunity for a level of connectedness, belonging, and sense of purpose that they may not have experienced before. Communities had the opportunity to get through, plan, and regenerate together as a collective. Some participants said their involvement in community life had spiritual significance.

‘Virtuous circle’ and ‘culture of possibility’

The six communities differed in their capacity to harness these positive opportunities. Our research found that in communities with strong pre-existing connectedness, community and iwi (tribal) infrastructure, and a comprehensive community response to the disaster, a ‘virtuous circle’ seems to have developed.

A virtuous circle:

Taking part in community support and responses enhanced well-being both individually and collectively – and gave rise to further community involvement.

For some communities and sub-groups, the initial honeymoon was extended into the medium-to-long term, and community leaders remained excited and energised by a post-earthquake ‘culture of possibility’, where subsequent innovation and community action could more easily occur. For instance, two Lyttelton community leaders said:

P1: [The earthquake response has] also shifted something in us too...you realise that we’re quite capable of doing these things. You don’t have to be in receptive mode, you can actually get things moving [yourselves], and because they don’t have to have so many bits of paper signed and agreed and all that, that can be more spontaneous.

P2 And every time you do it and it works, you think: ‘Oh, next time I’ll turn on something better’.

This quote also illustrates how early success boosts community belief in its ability to make change, known as ‘collective efficacy’ (Paton et al 2008) and enabling subsequent community action.

Impacts of displacement and disadvantage

By contrast, the honeymoon effect appeared to wear-off more quickly in neighbourhoods and subgroups with pre-existing disadvantages and/or ongoing adversity and uncertainty (e.g. Shirley residents, some displaced residents from Lyttelton and Inner City East, and some reports from marae and migrant communities).

Without sufficient community infrastructure or external support, these residents remained relatively isolated and unable to collectivise or overcome earthquake-related problems. A negative spiral of adversity, anxiety, depression, fatigue, and social withdrawal then appears to have developed.

5.4 Socioeconomic hardship

5.4.1 *Effects of disaster on hardship*

Disasters are known to disproportionately affect disadvantaged groups. In Louisiana's Hurricane Katrina, for example, disadvantaged people were more vulnerable to the adverse effects of the hurricane, and inequalities affected the length and quality of recovery efforts (Colten et al 2008).

Our case studies illustrate some uneven impacts of the disaster, and uneven access to support services. In socioeconomically-disadvantaged communities – such as Shirley, marae communities, migrant and refugee communities, and much of Inner City East – participants reported that many people were already living in hardship before the earthquakes. These communities were further disadvantaged by the earthquakes and difficult consequences like unemployment and homelessness.

5.4.2 *Effects of hardship on resilience*

Our research found that adversity and hardship affected the ability of some communities to adapt after the earthquakes. Although it is not possible to alter the extent of adversity directly caused by the earthquakes, the effects of adversity can be mitigated by prompt efforts from officials and community support.

We also found that experiences of individual and collective hardship helped to develop transferable survival skills. These skills helped people in disadvantaged communities to adapt.

However, for some sub-groups, pre-existing hardship was a significant barrier to resilience because of limited material resources and multiple stressors. Research shows that such stressors have a cumulative effect over the life course and across generations, sustaining and widening health gaps between advantaged and disadvantaged social groups (Thoits 2010).

Vulnerable households and communities are likely to recover more slowly after a disaster, affecting their future resilience and vulnerability (Pfefferbaum et al 2005, cited in Chandra et al 2010). This is consistent with our finding that there were still many people facing hardship in Canterbury at the time of our fieldwork (around 16 months after the February earthquake), especially in disadvantaged communities.

Literature also notes that where vulnerable groups are concentrated geographically, it becomes much more difficult to develop and maintain community resilience (Chandra et al 2010).

5.4.3 *Access to information*

Post-disaster, some vulnerable populations may rely more on media, neighbours or family for critical information rather than official agencies (Chandra et al 2010). This was the case among some migrant and refugee groups in our research, particularly as the immediate official information was initially provided only in the English language.

The Christchurch City Council (CCC) reported that translated emergency information was available in multiple languages within the first few weeks. However, migrant leaders in our study emphasised that many migrants and refugees did not have easy access to emergency information in their own language, especially early on.

The CCC has since commissioned a best-practice guide, in collaboration with migrant and government organisations, to help authorities to improve communication with culturally and linguistically diverse (CALD) communities (Wylie 2012).

5.4.4 Access to services

Several communities suggested it was difficult at times to access some services (e.g. housing, income support or emergency assistance) or to seek help. These apparent barriers emphasise the need for culturally-appropriate methods of resource distribution.

In Canterbury, the Red Cross reported that Māori and Pacific groups accessed emergency assistance at higher rates than Pākehā in the month after the February earthquake (New Zealand Red Cross 2011). Efforts were made to help Māori access assistance, e.g. Te Puni Kōkiri staff assisted Māori with the registration process.

Still, some of our participants said they knew of people in need who had not accessed emergency grants because the administrative process was unfamiliar or overwhelming.

5.5 Summary of discussion

In general, our findings are consistent with international and local literature. They extend knowledge about why community involvement is important in disaster recovery, and illustrate how existing disadvantage may be magnified in communities with limited community infrastructure and resources.

Our findings support a multi-national resilience committee's statement that: 'Communities find ways to succeed in normal times and they are persistently effective during the worst moments of emergencies and their aftermath' (Bach et al 2010). Our work suggests this is because of the essential roles of informal social networks, cultural infrastructure and networks (e.g. iwi, marae), and community-development organisations.

Though the earthquakes had many adverse effects on well-being, the experience also provided opportunities for post-traumatic growth²⁷.

Our research aims to inform action, by communities and authorities, to better prepare communities for future adverse events. We suggest strategies to increase community resilience in the next section.

²⁷ *Post-traumatic growth* refers to: the experience of positive change that emerges from the struggle with highly-challenging life crises

6 Implications and recommendations

Our research findings imply a need for action by communities and authorities. Based on our research, we suggest three key strategies to increase community resilience. Then we discuss several challenges for authorities in supporting community resilience, and consider the strengths and limitations of our research. Lastly, we make 15 recommendations to communities and authorities.

Outline of implications section

6.1	Strategies to increase community resilience
6.2	Challenges in supporting community resilience
6.3	Strengths and limitations of our research
6.4	Recommendations

6.1 Strategies to increase community resilience

Resilience-building strategies are likely to vary according to community needs and preferences – there are no blanket solutions. However, a core message for authorities, from our research, is that officials need to engage with local communities – to understand communities better, and to find ways to work together to develop resilience.

Our findings imply that:

- 1) Community-led action (through health promotion, iwi/tribal development, and community-development approaches) is key in building resilience
- 2) In a crisis, communities are well placed to respond, but they must be resourced and enabled to carry out this role, and authorities need to understand community complexity and diversity.
- 3) Understanding communities better may require new models of partnership and shared decision-making between authorities and communities.

6.1.1 *Community-led action*

Key community-led strategies are community development, cultural and iwi/tribal development, and health promotion.

Community- and cultural-development approaches

Our research suggests that community-based organisations, such as marae and local community groups, need to be enabled and resourced – in disaster contexts and more generally.

National and local authorities could be more proactive in this area by assessing where there are gaps in community infrastructure, e.g. by resourcing communities with little infrastructure to carry out needs assessments and collective planning.

In our research, Māori cultural practices and organisational forms (especially marae) had benefits for non- Māori as well as Māori, suggesting that indigenous cultural values and processes may have promise for disaster response and recovery more broadly.

Health promotion

Health promotion works to empower communities. It uses community action to identify needs and priorities, and to implement strategies to improve health and well-being. It can contribute to resilience-building, and also reduce the impact of disasters on people and their health and well-being (Kessaram and Signal 2011).

Throughout disaster response and recovery, interventions must focus on equity, to reduce current disparities, and ensure that existing social and economic inequalities are not widened by disasters (Kessaram and Signal 2011).

It is also important to combine community-based action with public policies to promote health (e.g. affordable housing policies, sustainable transport, and healthy urban design).

Action to improve well-being

Our research indicates that community involvement helps improve the well-being of individuals and communities. In turn, enhanced well-being increases adaptive capacity and builds community resilience.

This implies a need at policy and practice levels to prioritise community involvement, health promotion, volunteering, and other initiatives that enhance well-being – not just the well-being of individuals, but also the social, cultural, economic, and environmental well-being of communities.

6.1.2 Understanding community complexity and diversity

International disaster-resilience experts suggest the best approach for authorities wanting to promote resilience of local communities is to get to know communities better, and to find ways to support and enable local activities (Bach et al 2010, UK Cabinet Office 2011). This is in contrast to a traditional, ‘top-down’ model where authorities make decisions and act on behalf of communities.

Resilience experts suggest that analysis and policy development on community resilience should examine how local community activity is arranged and organised in ‘normal’ contexts, well before a crisis occurs. In the words of the committee:

The goal would be to understand [a community’s] social patterns, how decisions are made, the possibilities for actions and support, and potential sources of new collective action. In short, long before anyone claims to be looking at ‘community resilience’, much more needs to be known about local realities and what makes local groups and institutions successful (Bach et al 2010).

Communities are diverse

Our participants defined their community in various ways, e.g. as whole suburbs or townships, immediate neighbours or workplaces. ‘Communities within communities’ were the norm not the exception. This is consistent with international literature suggesting that traditional ideas of communities as small and similar often persist, but are not the reality for most people (Bach et al 2010).

In the communities of interest (e.g. Community House, marae, and migrant communities), some people identified more with cultural or workplace communities than with their geographic neighbourhood. This has implications for disaster response and recovery since local support plays a vital role after a disaster, especially early on.

Our research also found much diversity in participants’ coping strategies, responses to hardship, and preferences for community support. For example, some participants emphasised the role of creative, ‘morale-boosting’ initiatives, while others felt that practical support was more essential. Many

participants valued organised opportunities to get together, but others preferred informal social contact.

Effects of displacement on communities

Displacement adds to the complexity. The Canterbury earthquakes led to the permanent or temporary displacement of many residents, affecting the demographic make-up of communities. It will be important to facilitate the development of mutual support for displaced people moving into new communities (Mooney et al 2011).

Community-sector evidence

Despite this complexity, a body of community-centred evidence and experience exists, which can inform efforts to strengthen communities. For instance, the Inspiring Communities network has been active since 2008, aiming to support and strengthen the community-led development movement in New Zealand.

A community and voluntary sector research centre also exists, which shares research and encourages researchers, iwi, and community organisations to share ideas (see www.communityresearch.org.nz).

6.1.3 Partnerships between community and government

Our research adds to contemporary debate on roles and relationships between community and government (e.g. Bach 2012, Ryan 2011, Bach et al 2010).

Some experts argue that the community-resilience agenda does not simply require new programmes, but ‘a philosophical shift in relations between the state and civil society that changes the parameters of how local communities organise and act’ (Bach et al 2010). It involves a shift towards communities and individuals drawing more on local resources and expertise.

Such community action and preparedness is intended to complement, not replace, official responses. Partnerships, shared responsibility, and collective decision-making models are required.

For indigenous and ethnic communities, in particular, official actions need to respect cultural values and practices. In New Zealand, the Crown has specific Treaty-based obligations to work in partnership with iwi.

Importantly, though, greater partnership with local communities should not be seen as a way for governments to transfer costs and accountabilities to communities (Bach 2012).

Our research also implies a need for a partnership approach in which authorities recognise, support, and complement local efforts – and listen to what communities say they need and want. Our research participants valued face-to-face meetings between authorities and communities, in the earthquake response and more generally.

Participants said that some government agencies had worked well as partners with community organisations after the earthquakes. They valued the role of the Ministry of Social Development (MSD), for example, in offering timely earthquake-assistance funding and other support to community organisations.

6.2 Challenges in supporting community resilience

Our findings raise several potential tensions for authorities, in their consideration of how to promote and support community resilience.

1. As in any post-disaster situation, there is a tension between making timely official decisions, and ensuring an inclusive, democratic process for planning and implementing disaster response and recovery.

This tension was apparent in our research, as many participants felt they wanted to be more involved in local and city-wide earthquake recovery, and some felt excluded from decision-making processes. On the other hand, participants also felt that rapid responses by authorities to restore infrastructure had helped community resilience, and conversely, delays in official decisions and actions had been detrimental.

2. There is a tension between encouraging and enabling community-led recovery on one hand, and placing unrealistic expectations on a resource-constrained community sector on the other.

Many participants commented on the insecure financial position and workload pressures of many community organisations. There is a need for authorities to consider how best to support community leaders, as their role is critical.

Some participants said that particular communities, such as marae, took on substantial responsibilities in disaster response without being sufficiently resourced or recognised for their role. This implies a need for additional external resources and support from authorities in communities, particularly where there are greater needs or limited community infrastructure.

3. Our findings suggest a need for authorities to enable and support the local leadership and innovation that emerges following a disaster. However, there is a risk of magnifying inequalities by ‘oiling the squeaky wheel’ and channeling official support into communities that are already well resourced and well organised.

Communities without strong leadership or collective action may be overlooked, thereby exacerbating existing disadvantage and widening social and economic inequalities. As noted in our findings, disadvantaged communities may find it difficult to advocate for their needs, compared with more advantaged communities.

6.3 Strengths and limitations of our research

In drawing conclusions and making recommendations, we need to consider our work’s strengths and limitations. Our research is informed by community leaders and residents directly affected by the earthquakes. It gathered learning from, and compared, six diverse communities. The number of contributors is large – more than 90 participants. The research includes Māori perspectives, from Ngāi Tahu largely, and two case studies (marae communities, Shirley) focus on Māori experiences.

However, as discussed in Section 3.7, the research findings are based primarily on participants’ perceptions, and many participants were community leaders. This could have the effect of overstating the importance of community organisations. But, our findings are consistent with international literature, and residents’ views were generally aligned with those of community leaders.

On balance, our findings are likely to be a fair reflection of Canterbury community experiences, though are not directly representative of Canterbury communities as a whole. They may be applicable to other communities, in New Zealand and internationally.

6.4 Recommendations

We make the following 15 recommendations, based on our research and relevant international literature. We also suggest several areas for further research.

Our recommendations relate mostly to ordinary times, rather than disasters. This is because generic community-building activities help to prepare communities for disasters. The recommendations that do focus on post-disaster contexts are identified as such.

6.4.1 Recommendations to communities

- 1 Build strong, empowered communities through community-led action, for example:
 - use community development, cultural and iwi (tribal) development, and health promotion to identify needs and collective strategies to enhance well-being, e.g. marae development programmes.
 - focus on issues and projects that community members identify as important (or ‘go where the energy is’)
 - support community-building activities, e.g. marae-based events, music concerts, festivals, street parties, community gardens, and neighbourhood support initiatives
- 2 Carry out community-level planning and preparedness for disasters and other crises, building on existing community strengths, for example:
 - specify local leadership responsibilities
 - strengthen communication networks
 - improve community needs-assessment information
 - develop household databases and community skill databases to match needs and skills (e.g. Timebank)
- 3 Advocate to authorities on the need to strengthen community infrastructure (e.g. community-based organisations, iwi (tribal) infrastructure, marae, leaders, networks, facilities)

6.4.2 Recommendations to authorities and communities

- 4 Promote volunteering as a strategy that helps individuals as well as communities, and promote the ‘know your neighbours’ message
- 5 Develop strong partnerships between authorities and communities to:
 - a) better understand communities and their needs and priorities, and
 - b) work together (especially face-to-face) to understand the complexity and diverse characteristics of communities

For example: organise Christchurch-wide or local forums of community leaders, grassroots groups, and national and local officials to:

- reflect on learning from the Canterbury earthquakes, and
- discuss collaborative approaches to build resilience in communities

- 6 Post-disaster, ensure the ongoing Canterbury earthquake-recovery process is community-driven, where communities and iwi identify their own needs and solutions, and authorities enable and support local initiatives, for example:
 - fund community events and other opportunities to get together
 - support 'do-it-yourself (DIY)' solutions in disaster recovery
- 7 In a disaster context, work to harness the positive opportunities that a crisis brings, such as greater community connectedness and commitment to collective action
- 8 In a disaster context, work collaboratively on strategies to support displaced people, e.g. addressing housing shortages, with the aim of rehousing people within or close to their own community (if desired and possible)

6.4.3 Recommendations to authorities

- 9 Work in partnership with iwi and other Māori leaders to meet Treaty of Waitangi obligations and to support Māori self-determination, e.g. marae development programmes
- 10 Work in partnership with cultural leaders in diverse ethnic communities to ensure diverse ethnic input into disaster preparedness, response, and recovery processes, for example:
 - support the application of cultural practices and values in disaster preparedness, response, and recovery
 - communicate with diverse ethnic communities (e.g. translation of emergency and preparedness information into multiple languages).
- 11 Encourage, resource, and support the development of community infrastructure, for example:
 - fund community-building activities such as health promotion and community development
 - work in partnership with iwi to strengthen and support local marae infrastructure
 - ensure adequate resourcing of community-based organisations to recognise their vital role in building community resilience, and work with communities to develop local infrastructure in communities where this is lacking
- 12 Consider ways to devolve greater decision-making responsibility to local communities to enable community self-governance as appropriate
- 13 Implement general policies that support social, cultural, economic, and environmental well-being
For example: support Māori and iwi development, local economic development, small business development, and policies to increase community connectedness (e.g. urban design and transport policies to encourage compact urban design and walkability)
- 14 In a disaster context, ensure there is two-way communication with communities over time (especially face-to-face where possible), explain the rationale behind official decisions and actions, and recognise that community priorities may differ from those of government agencies
- 15 In a disaster context, enable greater flexibility of community-based workers by releasing them from standard contractual obligations so they can respond to the needs of the community (as happened in Canterbury earthquake responses).

6.4.4 Areas for further research

Our research demonstrates the value of researching adverse events from a community perspective. It contains rich data and insightful advice from communities. While there is a growing literature on community resilience, much more could be done.

Research from a Māori world-view (Kaupapa Māori research) is required, to explore the unique contribution of Māori in disaster and preparedness contexts, and to investigate how best to build the resilience of Māori communities. Such research is vital in the New Zealand context, and would also offer learning for other countries and indigenous populations globally.

Further research could also be carried out – from both communities’ and authorities’ perspectives – on effective ways to:

- strengthen community-based organisations and iwi/tribal infrastructure
- promote volunteering and
- strengthen partnerships between communities and authorities to support resilience-building.

Finally, it is important that initiatives to increase community resilience are evaluated effectively, so lessons can be learnt and resources used to best effect.

7 Conclusion

In conclusion, this research highlights that communities are well placed to facilitate disaster recovery and to develop collective resilience to future crises. The case studies illustrate that connected communities, with strong pre-existing community infrastructure, found it easier to initiate local responses, to foster community involvement, and to access timely external support.

Conversely, communities or sub-groups with fewer community-based groups, local leaders or existing networks found it more difficult to respond and adapt as a community. Adverse effects of existing hardship, and socioeconomic disadvantage, seemed to be exacerbated by the disaster and its consequences.

Our research sheds light on how to foster strong, engaged communities – both in a disaster context and under ‘normal’ conditions. Key strategies include community-led action (e.g. community development, iwi/tribal development and health promotion), understanding communities and their complexity, and building strong partnerships between communities and authorities.

Our work also indicates *why* it is important to build strong, engaged communities – because these communities cope better with crises. However, communities need to be sufficiently resourced and enabled to carry out their vital role.

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9 Glossary and acronyms²⁸

CanCERN – the Canterbury Communities’ Earthquake Recovery Network, a network of residents’ associations and community-group representatives from earthquake-affected neighbourhoods. It formed after the September 2010 earthquake to encourage community involvement in recovery processes and work in partnership with recovery agencies.

Community connectedness – relationships, interactions, and networks within and across a community. In this report, related concepts such as sense of community are discussed under the heading of ‘community connectedness’.

Community development – communities working together to identify their own needs and to create shared solutions to meet those needs (collective problem-solving)

Community engagement – is the process of building relationships between community members and authorities as partners, to plan and work towards change in a community. Community engagement in official decisions involves building relationships between communities and authorities.

Community infrastructure – community-based organisations, marae, grassroots groups, leaders, networks, and/or facilities (e.g. community halls, parks, playgrounds, and libraries)

Community resilience – the process of adapting positively to adversity or risk

Culture of possibility – participants in this research reported a heightened sense of community and continued to feel energised and empowered by a post-earthquake ‘culture of possibility’, where subsequent innovation and community action could more easily happen.

Hapū – subtribe

Iwi – tribe

Karakia – prayer or ritual chant

Kaumātua – respected elder

Kaupapa – topic, matter for discussion, or common priorities and experiences that bind a community together

Kawa – protocols and related customs of a marae (meeting place)

Kōrero – talk, speaking

Kotahitanga – the iwi acting in one accord to support the people of Christchurch regardless of race, culture or ethnic identification

Manaakitanga – caring and hospitality

Mana whenua – territorial rights associated with possession and occupation of tribal land

Māori – the indigenous people of New Zealand

²⁸ Definitions are from various sources. Many of the Māori terms come from Potangaroa and Kipa (2012), advisors, and the online Māori dictionary, <http://www.Māoridictionary.co.nz/>

Māori wardens – volunteer workers who give advice and have minor disciplinary powers in Māori communities. Māori wardens are visible at community events, providing security, traffic and crowd control, first aid, and confidence for the public.

Marae – a Māori meeting place or cultural community centre where Māori culture is celebrated, te reo Māori (the Māori language) is spoken, and iwi (tribal) obligations are met. The marae is a wāhi tapu – a sacred place where iwi and Māori culture can flourish.

Ngāi Tahu – the largest iwi (tribe) in the South Island, also known locally as Kai Tahu

Pākehā – New Zealander of European descent

Papatipu Rūnanga – local tribal council, assembly or board

Post-traumatic growth – the experience of positive change that emerges from the struggle with highly-challenging life crises

Rūnanga – a tribal council, assembly or board

Share An Idea – a six-week public-engagement programme to seek ideas from the public about redeveloping Christchurch’s central city. The Christchurch City Council held the programme in May–June 2011 and developed a draft Central City Plan based on community input. The draft was then transferred to the Canterbury Earthquake Recovery Authority (CERA). A more detailed plan, called the Christchurch Central Recovery Plan, was released in late July 2012.

Tangihanga – funeral or grieving ritual

Te Rūnanga o Ngāi Tahu – the iwi authority (tribal council) that oversees the iwi’s activities

Tikanga – correct procedure, custom, or convention

Tino rangatiratanga – self-determination

Treaty of Waitangi – the founding document of Aotearoa New Zealand, which sets out rights and responsibilities of the Crown (central government) and iwi

Virtuous circle – where participants in this research reported that taking part in community support and responses enhanced well-being both individually and collectively – and gave rise to further community involvement.

Whakamā – shy or ashamed

Whakapapa – kinship and historical relationships that connect members of whānau, hapū, and iwi

Whakawhanaungatanga – a process of establishing relationships and relating well to others, the nurturing of whānau and other relationships

Whānau – family or groups connected by close reciprocal relationships

Whanaungatanga – a sense of family connection that develops from kinship rights and obligations and can also extend to others with whom one develops close reciprocal relationships.

List of acronyms

CanCERN – Canterbury Communities’ Earthquake Recovery Network

CCC – Christchurch City Council

CDEM – Ministry of Civil Defence and Emergency Management

CERA – Canterbury Earthquake Recovery Authority

HNZC – Housing New Zealand Corporation

MSD – Ministry of Social Development

TPK – Te Puni Kōkiri (Ministry of Māori Development)

UK – United Kingdom

US – United States of America

Appendix 1: Lyttelton Case Study Report

Acknowledgements

The Canterbury earthquakes have had, and continue to have, a huge impact on all who live in the region. The researchers gratefully acknowledge all the people who took part in this research. We thank the participants for giving their time during a very difficult period, and for sharing their views and experiences. Their reflections and insights have directly informed the potential learning from this research.

Community profile

Lyttelton is the port town of Christchurch, and is separated from Christchurch city by the Port Hills. The Lyttelton census area unit includes the neighbouring bays: Corsair Bay, Cass Bay, and Rāpaki, as well as the township of Lyttelton (Christchurch City Council 2011). Lyttelton is 12 km from the Christchurch city centre, and since 1964 New Zealand's longest road tunnel (1.9km) has provided easy road access between Lyttelton and Christchurch (New Zealand Transport Agency 2012). However, the small community of about 3000 people has retained its own distinct character and sense of separateness.

Lyttelton residents are predominantly New Zealand European (84.8%) (Christchurch City Council 2011), although a significant Māori community is based at Rāpaki. Lyttelton has a historical and continuing relationship with the port, and before the earthquakes, it had a thriving hospitality, live performance, and creative scene. A large part of the town centre was awarded Category 1 Historic Area status in 2009 by the New Zealand Historic Places Trust (Christchurch City Council 2012).

Lyttelton is remarkable for the number and reach of its community groups, and the strength of its social infrastructure. For example, the Christchurch City Council's community profile identified 28 community organisations (approximately one for every 100 residents) and 18 meeting venues in the township before the earthquakes (Christchurch City Council 2011).

Impact of the earthquakes

Lyttelton was near the epicentre of the February 2011 earthquake, which was shallow and centred under the Port Hills. The earthquake destroyed most of the historic buildings on the main street, all of the historic churches, and rendered unusable the supermarket, most of the pubs, restaurants, and meeting venues. A significant number of houses were also badly damaged or destroyed. Because of the steep, rocky terrain, Lyttelton was affected by rock fall and failed retaining walls rather than liquefaction (Christchurch City Council 2011). Two people lost their lives on the Port Hills walking tracks that day. Miraculously, no one was killed in collapsed buildings in Lyttelton (New Zealand Police 2012). At the time of our research fieldwork, many residents were awaiting decisions from the authorities about whether their properties would be deemed safe for rebuilding to go ahead, or 'red zoned' because of risk of rock fall.

Methods

Community resilience is defined as the process of communities adapting positively to adversity or risk (Kobau et al 2011, National Mental Well-being Impact Assessment Collaborative 2011). This research project gathered information from affected Canterbury communities to understand what helped (and

hindered) their resilience. The research does not evaluate the effectiveness of community responses. Rather, it examines and describes a selection of those responses to identify factors that build community resilience.

We held focus groups and interviews with 92 Christchurch participants. This case study is one of six:

- Lyttelton
- Shirley
- Inner City East
- marae communities
- migrant and refugee communities, and
- Christchurch Community House (as a workplace community).

The research focuses on post-earthquake recovery from February 2011 to July 2012. We carried out the fieldwork between May and July 2012, approximately 16 months after the destructive February earthquake. We wrote up the fieldwork in October and November 2012, and then sought and incorporated input from the advisory group, key contacts from the case-study communities, government agencies, and the two funding agencies – the Health Research Council of New Zealand and Canterbury Medical Research Foundation. We finalised the report in early 2013.

As the Lyttelton case study is part of this larger research project, it should be read with the full report, which gives further detail on the methods, limitations, and implications of the work.

Participants

The following case study is based on the reports of eighteen Lyttelton community leaders and residents. A key contact person in Lyttelton was identified by Christchurch-based advisors, and a snowball method was used to identify participants who were well placed to shed light on the research questions. Participants were aged 30-68 and included residents who were ‘born and bred’ in Lyttelton, and people who had chosen to live in Lyttelton as adults. Because of the high level of community involvement amongst Lyttelton residents, the line between ‘community leader’ and ‘resident’ was rather blurred. Almost all participants had contributed to the community response in some way, and many were both givers and receivers of support.

The aim was to gain an understanding of what helped and what hindered the resilience of the Lyttelton community overall, focusing on the township of Lyttelton itself. (Note that Rāpaki marae is included in the marae communities case study). Examples of community action are given, but the following case study is not intended to provide a comprehensive account of the community’s earthquake response. The case study presents the views of a small number of individuals and may not necessarily reflect the experience and views of Lyttelton residents more broadly.

Key organisations

Representatives and/or clients of the following organisations took part in interviews or focus groups. A very brief outline is provided for readers not familiar with these organisations.

Project Lyttelton

Project Lyttelton is a non-profit community development organisation aimed at building sustainable, connected community. The Farmers' Market (established in 2005), Lyttelton Community Garden, and various community festivals have been initiated by Project Lyttelton.

Lyttelton Timebank

Lyttelton Timebank is a Project Lyttelton initiative that facilitates the sharing of skills with other members of the community. People are given time credits for the work they do for others and with the credits they gain, each member can 'buy' someone else's time.

Lyttelton Harbour Information Centre

The Lyttelton Harbour Information Centre provides visitor information for tourists, and also provides information about community services, events etc. for local residents.

Lyttelton Community House and Lyttelton Youth Centre

Lyttelton Community House provides recreation and support services for the community and incorporates the Lyttelton Harbour Basin Youth Centre. Most of the staff and volunteers of Community House and the Youth Centre were 'born and bred' in Lyttelton.

Volunteer Fire Brigade

Lyttelton is one of many New Zealand communities whose fire brigade is completely staffed by trained volunteers. Volunteer Fire Brigades are part of the New Zealand Fire Service, and are supported by that parent body.

Lyttelton/Mount Herbert Community Board

The Lyttelton-Mt Herbert Community Board is one of eight Community Boards in Christchurch and represents almost 5,500 people and some 2,200 households. The community includes Lyttelton, Diamond Harbour, Governors Bay, Port Levy, and Quail Island. According to the Christchurch City Council website, the key roles of community boards are to: represent and act as advocate for the interests of its community; consider and report on all matters referred to it by the Council, or any matter of interest to the board; maintain an overview of services provided by the Council within the community; prepare an annual submission to the Council for expenditure within the community; and communicate with community organisations and special interest groups within the community.

Findings

Effects of earthquakes on well-being

According to Lyttelton participants, the effect of continuing uncertainty about the future was a key problem that impacted negatively on well-being. For example, many reported that the ongoing uncertainty around whether and when their houses would be repaired was very stressful. One community leader commented:

People are frustrated at the time it's taken for repairs to take place. People are still living in cold damp houses without proper heating and temporary repairs that really aren't suitable. [They] might have been acceptable for a few months, but certainly a year and a half later isn't at all acceptable. And I'd imagine that's affecting people's health and people's well-being, and certainly its affecting people's mental health I think in some cases.

Only one Lyttelton participant reported feeling anxious about the ongoing aftershocks. However, several people said the community went through a dark period between June and December 2011, when there was a collective sense of depression, stress, and fatigue. According to a few participants, this led to an unhealthy amount of drinking, short-tempered outbursts, and negative gossip in the community, for example. One community leader said:

I think at the end of last year everybody was just waiting for Christmas and to go on holiday and just relax and recharge the batteries, and so on...There was an overriding tiredness and of course we had that [aftershock] in December. No, they're not fun.

Community responses to the earthquakes

Participants spoke about the following community-based responses to the earthquakes.

Immediate – day one

Informal support

According to participants, immediately after the February earthquake, neighbours and friends checked on each other and provided practical and emotional support. One participant reported driving elderly people in his neighbourhood down to the Recreation Centre (the Civil Defence Sector Post), for example, and others also commented that they checked on elderly neighbours. Several participants whose homes were uninhabitable said they were offered accommodation by other Lyttelton residents.

Because the road tunnel was closed initially, many Lyttelton residents who had been in the city when the earthquake struck walked home over the Port Hills via the Bridle Path. One participant said he and his wife offered people cups of tea as they arrived in Lyttelton, and helped them contact their families.

Participants reported that residents pitched in to help the organisations that were providing emergency response services, such as Civil Defence, the Volunteer Fire Brigade, and St John Ambulance. One community leader commented: 'We had people coming down offering help right from two minutes after the earthquake'. These organisations were themselves staffed by volunteers from the local community.

Volunteer Fire Brigade and St John Ambulance

Participants described how the Volunteer Fire Brigade immediately set to work removing chimneys and securing roofs, and so on. As noted above, these efforts were supported by local residents. Participants were all in agreement about the key role the Fire Brigade played, not only on the day of the quake, but in the following weeks. One resident said:

Our local Volunteer Fire Brigade did an absolutely magnificent job, absolutely fantastic. They are all volunteers. They all work in other work but their employers actually acknowledged the situation and they worked solidly around the town oh for a week or more, just assisting people who had broken windows that needed boarding up and chimneys that had fallen through roofs - all that sort of thing.

According to the Brigade, they responded to about 380 calls in the two weeks following the February quake.

Opposite the fire station, St John Ambulance volunteers were available to treat anyone who was injured and, within minutes of the earthquake, had set up a table and chairs outside their building on the street. A participant explained:

There were a number of random people from within the community went and helped the guys at St John's to do that. And the thinking was that at least if there were any injured people or any people that were shaken or people that were on their own, they'd have somewhere to go, a chair to sit and get a hot cup of tea.

Welfare Centre established

Participants described how, on the day of the earthquake, the Lyttelton Recreation Centre was set up as a Civil Defence Sector Post, providing food, shelter, information and somewhere for people to gather. The Navy happened to be in port on that day, and participants said they played a key role in supporting local Civil Defence response, providing cooked meals, and also setting up and patrolling security cordons in the town centre.

Timebank

The Timebank was valuable in the aftermath of the earthquake because it meant there was a database of about 400 community-minded people with particular skills that could be matched to the tasks that needed to be done. From day one, Timebank volunteers were involved in the clean-up and disaster response. Timebank broadcasts were made about five times a day and teams of Timebank volunteers dealt with urgent repairs, and fed, shifted, and housed other residents. One participant commented that much of this community support probably would have happened anyway, but the Timebank enabled it to occur in a more systematic, organised, and timely manner.

Interagency meetings

Morning and evening meetings of community leaders – e.g. the fire chief, St Johns, police, navy, Timebank, Information Centre – were initiated on the day of the earthquake. According to participants, by the evening of February 22, Lyttelton was well organised, with processes in place to address the immediate needs of residents, and key organisations working together. The daily briefing and debriefing sessions kept community leaders updated with information from external agencies, and well informed of what was happening within the community.

First few weeks after the earthquake

Within days of the February earthquake, water tankers were supplying drinking water for the population. The Lyttelton community staffed the water station:

We took turns at the water tanker because [...] (you) had to have two people there to remind people to wash their hands before touching the water, and also to help elderly people or people who had huge containers to lift them in and out of cars.

Services such as Work and Income, the Salvation Army, and other welfare agencies set up desks at the Recreation Centre, which became a 'one-stop-shop' for earthquake support. Meals were provided there too, and participants reported that it was a friendly and welcoming place. One person commented: 'It was just a great place to meet people and talk, and the children felt very comfortable down there'.

The Lyttelton Summer Festival – planned for the weekend after the February earthquake – went ahead, but in a different form. Normally it would involve live music and stalls on the main street, and would attract a large crowd from outside Lyttelton. Instead, the roads in and out of Lyttelton were closed except for residents, and a smaller-scale gathering of community members and musicians happened. One participant said:

It was like a giant in-house party and that was quite an amazing experience because everyone was down on the grassy bit and everyone was checking [that] everyone was fine. It was an intimate party really for Lyttelton to celebrate, you know, being alive.

Community House set up a temporary 'mini-high school' for students who were unable to return to school. Community House also operated as a drop-in centre, where people could come for a cup of tea and a chat, or to join in with volunteer activities.

Lyttelton businesses contributed their skills, stock, and equipment to the emergency response. For example, one participant said Stark Brothers were constructing concrete blocks and propping up retaining walls with them. Others said that within days of losing its premises, the Lyttelton Coffee Company set up a coffee machine outdoors and gave away coffee. This became a gathering place for people to meet and share stories, and a small group of women started meeting there to stitch hearts and give them to passers-by. A community leader said that the heart brooches became a symbol of the resilience of Lyttelton.

When Civil Defence wound down the meal provision at the recreation centre, Community House took over cooking and delivering meals to elderly and vulnerable residents. This volunteer effort meant that vulnerable people not only got a cooked meal every day, but it also provided them with social contact and emotional support, and gave volunteers a chance to assess whether the residents had other problems that needed to be addressed (e.g. repairs to the home etc).

The Lyttelton Farmers' Market, which had been popular both with locals and visitors from Christchurch before the earthquakes, was re-established within a few weeks. With the supermarket and many other shops and cafes closed, the market was one of very few food outlets in Lyttelton. Participants noted that, although the tunnel re-opened within days of the February quake, Christchurch people were hesitant to come to Lyttelton because of safety concerns and fears of being cut off if there were further earthquakes. The success of the Farmers' Market, and other retail and tourist businesses was impacted.

More recent and ongoing initiatives

One participant reported that within a week of the February earthquake, informal discussions were already happening between residents and community leaders about how Lyttelton might look in the future. Picking up on this desire to talk about the future, the Lyttelton/Mount Herbert Community Board organised public meetings so that people's ideas could be aired and documented. Seven weeks after the earthquake, about 400 people attended the first meeting, and in May 2011 the Board produced a summary report and recommendations. Participants explained that the Community Board does not have the powers to enact the recommendations itself, but used the report to advocate to the authorities on behalf of the Lyttelton community.

Lyttelton community organisations and individuals remained very active in the months following the earthquakes, organising events and new initiatives aimed at meeting the practical and emotional needs of the community. The Timebank took on a new role in organising fortnightly stalls on the street, e.g. a book-swapping stall (since the Library was closed for several months), and a clothes-swapping stall. An organiser commented that they had the stalls on the street because there was nowhere else to hold them.

Lack of venues was a problem, but improvised solutions were found. For example, one participant talked about free yoga classes being offered in a bar:

Somebody who usually charged for sessions just gave them for free so... it was in a bar and they just cleared it for a couple of hours, and it was so sort of weird on this 70s carpet...and it smelled of beer and we were doing yoga.

Another talked about an art therapist who donated her time to work with local school children:

She just went around to schools and offered for them to do both art therapy [and] also she did drama with them and she engaged other artists from around the world and in New Zealand to send supplies so that she could do the art therapy sessions for the children which was an amazing thing. It was just great.

Gap Filler (a creative arts project) worked with Lyttelton community leaders to create the Lyttelton Petanque Court in a vacant corner lot in the town centre to help fulfil the need for a public meeting space. The Petanque Court has become the unofficial 'town square' hosting numerous large and small community events, e.g. one-year memorial service, live music events, and Christmas Eve gatherings.

The Lyttelton Information Centre initiated a new monthly community newsletter for the town after the earthquakes. Its previous role was more to provide information to tourists and visitors, but following the earthquakes the focus shifted to keeping residents and local organisations informed.

The 'Backyard Tour' was an initiative by a group of Lyttelton musicians who offered to play for free at social gatherings all over the Christchurch. The tour was a great success and they were overwhelmed with requests, playing over 50 gigs in a two-month period. One of the musicians explained the idea behind this initiative:

I guess the idea was hoping that if people have something to do or go out to, then somehow they will connect with other people...[and it will] put a moment of positivity and spontaneity and maybe fun into the day-to-day business.

Participants described several festivals and community theatre events held since the earthquakes including 'the Pirates of Corsair Bay' and outdoor performances of Shakespeare. Some of these events were planned before the earthquakes. However, participants said it was a credit to the resourcefulness of the community that such events were able to go ahead. Participants said that other events were inspired by the 'culture of possibility' that followed the earthquakes, and the desire for fun activities to bring people together and take their minds off the grim reality of life in a disaster zone.

The lack of supermarket has been particularly problematic for elderly people who do not drive, so in late 2011, Community House set up a weekly shopping bus to transport people to supermarkets in Christchurch. This service has been popular with elderly residents who, according to participants, enjoyed the chance to chat with others as well as get their shopping done without having to rely on family.

During the winter of 2012, well over a year after the February earthquake, a get-together was organised by Community House for older residents who had grown up in the township. People were invited to reminisce, and they shared stories of the Lyttelton they remembered from their childhoods. Participants said this was something that might have happened anyway, but the earthquakes had heightened the need to connect with others and remember Lyttelton's heritage.

Effects of community responses on well-being

Participants were in agreement that community support had had a positive effect on individuals' well-being. One resident commented: 'It's almost like the little people, the little things that are happening regardless of the giant organisations - that's the most powerful and that seems to have the most

immediate effect'. Another participant summarised the impact of community support on individual well-being in the following way:

Lyttelton is relatively cohesive...it's a place where it's quite hard to be isolated, and so I think...that most people are coping relatively well and possibly quite a bit better than over the hill [in Christchurch], just because of that cohesiveness and because of new things that are happening all the time and the mere fact that people are helping each other here, you know.

Participants' comments on community initiatives or responses, which they thought were particularly beneficial, are summarised below.

Social support – actual and perceived

Participants agreed that informal neighbour-to-neighbour support and opportunities to meet, talk, and connect with others had been very helpful. Informal social support provided reassurance, comfort, and distraction both in the immediate emergency stage, and in the ongoing recovery phase. All of the participants described (explicitly or implicitly) how important connecting with others was for their well-being. One community leader said:

Just the sense of being part of a community - that people were out on the street talking to each other, asking questions, giving each other hugs... and getting together sometimes for meals and cups of tea...That's a very helpful thing.

Several people said that the value of community initiatives, such as the heart-stitching, was largely in bringing people together and facilitating connectedness. One resident felt that, in the immediate aftermath of the disaster, connectedness and social support were even more important than restoration of basic services: 'You know, you can make do [without running water]...but people being friendly and sociable and looking after each other was more important'. One person commented on the need to talk about events over and over, as a way of processing and coming to terms with what had happened.

Participants said that being part of a supportive community 'provided a certain cushion', in both practical and emotional matters. For example, one person who had lost her home said that because friends and neighbours had cared for her and provided accommodation, the experience of losing her home had been surprisingly stress-free.

Several said that it was not only actual community support that contributed to well-being and peace of mind, but the knowledge that help was there if they needed it. One person commented that the people she had grown up with in Lyttelton were like family, and they had always talked about being there for each other in times of need, but now she *knew* that those promises had substance. Another commented that Lyttelton Community House was important because 'if you wanted to, you could go down there and have a cup of coffee and have a bit of a chat'.

Effects of displacement

While neighbourhood social support and connectedness were described as good for well-being, our findings also suggest that individuals who are strongly enmeshed in their community may be more emotionally vulnerable if displaced, compared with those less connected to their neighbourhood. For example, one former resident who was displaced from Lyttelton, said being removed from her social support network inhibited recovery from the earthquake trauma she experienced. She commented:

I think I would have recovered faster from the experiences I had had if I had been able to stay in my community and have my usual support networks physically around me.

The same participant said that not only had she been dislocated from her support networks, but she also missed out on the sense of connectedness and belonging that others experienced in the immediate aftermath:

One of the things I've found most difficult [is] everyone in Lyttelton has talked about how...the silver lining to the earthquake is how it's brought everyone together and for me it's been the opposite experience...I missed out on all of those bonding experiences just because I wasn't physically there anymore.

Several participants commented that some elderly people who had been displaced from their homes were 'heartbroken' and struggling, despite community support.

Community contribution

Volunteer initiatives were described as being good for the well-being of those who contributed, as well as the recipients. One person said: 'There have been a lot of people contribute and do what they can, and also do what they feel is helping the community, and that in itself helps people'.

Participants agreed that being able to contribute, using whatever particular skills and talents they had, felt good. They said that contributing to the community's disaster response was good for their own well-being because it kept them occupied, gave them a sense of purpose and structure, and connected them with other people. One person involved with the Community House volunteer initiatives said:

To start with it's about getting in there and helping as many people as you can, doing what you can, and after a while it's - I mean you feel like you're accomplishing something, feel like you're doing something worthwhile and it's totally about your own mental health as well.

Several people noted that keeping busy was an effective survival strategy, i.e. contributing to the community helped them counteract the feelings of powerlessness, uncertainty, and loss that came with the earthquakes. For example, one volunteer said: 'We all like structure...and obviously all the structure we'd ever known had been blown away, so just doing what we were doing... it gave people a focus'.

Another person commented:

You just do things because if you don't, those times when you're not moving and doing stuff, that's when the weight of it will crush you down, so I think even subconsciously you just make yourself go and do things - it's what you do to survive.

Several people also said that witnessing the goodness of others was uplifting and inspiring. One said:

*People are f***ing wonderful, they are amazing...everything's gone but that's when the amazingness of people comes out. You know...even though you're tired from your day at work you've still got time to bake a cake that you're going to take around to your neighbour who's struggling. That's wonderful. That's amazing, you know.*

Creativity

Participants had differing views about the role of creativity in a disaster context. Some said that creative initiatives like Gap Filler provided 'small pleasures (that) make life exciting', and others said creativity played an important role in emotional recovery. For example, one resident, who had initially been dismissive of the heart stitching initiative, said that sewing hearts with others had a profound effect on her well-being:

[My daughter and I] sat down and just started doing one of these love hearts, and all of a sudden [I felt] this enormous relief, this beautiful feeling of just focusing on this really lovely thing for

other people ...and having our focus taken away from the worry and stress and horror, it was a really good thing.

Another participant commented on how valuable the art therapist's sessions had been for her children, helping them to process and express their feelings. But, not all residents valued artistic or creative initiatives. For example, one participant saw the heart stitching initiative as 'completely useless' and 'impractical'. This illustrates the different priorities and worldviews of individuals within the Lyttelton community.

Spiritual well-being

Participants said that church organisations had played a relatively small role in the Lyttelton disaster response. However, one person commented that the earthquakes had brought the Christian teaching of 'love thy neighbour' to life. She said:

For me personally, it's given me more a sense of what community really is about. You don't have to be sitting in a church worshipping to be doing your thing and being a community.

The spirituality of community life was an underlying theme in several interviews, with one person saying: 'People talk about religion being part of their life to make them happy. I reckon ...all we need is a strong community and you've got that feeling anyway'.

Several said that the earthquake had triggered a reassessment of priorities in people, and an increased emphasis on 'the values of love, of family, of community, of what's really important'. One participant commented:

At the end of the day I think it's taught us to understand the relative importance of things, and people are actually much more important than buildings.

Community events

Most people agreed that events and initiatives, which brought people together following the earthquakes, had a positive impact on well-being. For example, some said that public events such as live music at the Petanque Court, the summer and winter festivals, and community theatre events were uplifting; they provided high points in an otherwise bleak situation. 'Old Lyttelton' participants (those 'born and bred' in Lyttelton) seemed to be less engaged in these public events and connected with others in their own way, by 'go[ing] out on a Friday night to the Club', for example. These participants also valued the evening of storytelling about the old days in Lyttelton, as organised through Community House.

Recognition of community efforts

Some participants – both residents and leaders – said (implicitly or explicitly) that receiving positive feedback or recognition of their disaster recovery efforts meant a lot. One leader commented that the success of early community initiatives provided energy to keep contributing to the community and prevented burnout. Conversely, lack of acknowledgement was described as negative for personal well-being. For example, one participant said:

I know of people who sort of feel angry at Lyttelton...They're sort of angry at the enormous amount of work that they put in and [they] never get recognised for it I suppose... and having other people take credit.

Another participant reported a lack of acknowledgement in her workplace of the difficult situation she (and others) had been placed in on the day of the earthquakes. She said that this amplified the trauma

she experienced at the time. Later on, she was surprised how much it meant to her to receive official recognition:

*We ended up [getting] an earthquake award from the city and that [was] actually really f***ing cool. Unexpectedly, you know. I thought I wouldn't care but in the end, [I felt] 'actually, yeah, this is great'.*

Factors that affected community resilience

Participants identified many factors that helped (or hindered) the Lyttelton community's ability to adapt after the earthquakes. These factors are grouped into eight headings:

- community connectedness
- opportunities to get together
- community infrastructure
- external support
- official decision-making processes
- people's well-being
- survival skills
- extent of adversity.

Community connectedness

Participants agreed that pre-existing community spirit helped the Lyttelton community adapt after the Canterbury earthquakes. One participant said the connectedness of family groups, groups of friends, and neighbourhood groups, was 'the glue that has kept the community together, and that's where a lot of the resilience has come from'. Participants said that people generally knew their neighbours already, and several commented that Lyttelton's geography and relative isolation played a part in making it a strong, connected community. For example, one participant said:

I also think why we are so resilient is because many years ago we never used to go through the tunnel to Christchurch... and we also know that we can become cut off quite easily from Christchurch, so historically people just always got in and helped each other.

Others commented that because the town was small and walkable, funnelling down to the main street, people tended to have a lot of incidental social contact as they went about daily life. This also contributed to social connectedness before the earthquakes.

Participants explained that 'Old Lyttelton' people had connections that went back generations. Some of those who grew up in Lyttelton had the perception that, because of the road tunnel and influx of new residents, the community was not as close-knit as it used to be. However, other participants noted that many of the 'new' residents are community-minded people, attracted to Lyttelton because of its strong community spirit. Our findings suggest that although Lyttelton was a somewhat divided town, both 'Old Lyttelton' and 'New Lyttelton' communities were cohesive before the earthquakes and valued social connectedness.

People said that Lyttelton has a distinct identity and character. According to one community leader, the identity of Lyttelton people is strongly linked with the historic heritage of the town. The same person

commented that local people are proud of the self-reliance of the Lyttelton community. She said: 'That's one of the factors that contributed to its resilience too, the fact that there's always been a strong "do-it-yourself" ethic'.

After the earthquakes, Lyttelton has experienced both gains and losses in community cohesion. A few participants commented that the feeling of togetherness straight after the earthquakes was very powerful, and had broken down any barriers between people. Some said that the earthquake had brought 'old Lyttelton' and 'new Lyttelton' together. Examples included new friendships and connections forged, but several participants still talked of a clear divide between 'Old' and 'New'.

Most participants agreed that their community had become closer since the earthquakes, although most saw this as a strengthening or deepening of bonds that were already there, rather than a radical transformation. One resident who had lived in Lyttelton 26 years and worked there all his life said:

I don't notice a huge difference. Possibly because of the need for good communication and people coming out of their shells and out of their homes and reaching out to other people a wee bit more, possibly the effect of that has been a bit of a positive, I think, in that people are probably communicating a bit better, and they are perhaps a wee bit more trusting and that sort of thing.

At the same time, the closure of most shops, pubs and cafes meant that opportunities for incidental social contact decreased. For example, one couple said that since the Lyttelton supermarket closed, they drive to Christchurch to shop and rarely have any reason to go to the Lyttelton town centre. Several participants commented that connectedness of the 'Old Lyttelton' community, in particular, was impacted by the loss of pubs, with people staying home and watching TV now rather than socialising. One said: 'I think they've lost a lot of their strength because they've lost a lot of their places that they met and were traditionally very connected to'.

Another participant commented:

I actually do think the physicality of your environment brings people together and I think lacking that has definitely harmed things in terms of that idea of community togetherness and stuff, but I think the shared experience connects everyone regardless.

The pre-existing informal communication networks in the community appeared to work very efficiently in the aftermath of the February earthquake. For example, one resident talked about people text-messaging each other with information:

I think a few trucks turned up with food at some point and there was also - we'd get texts from other people we know saying 'nappies are being delivered to wherever'...Everyone was kept in the loop with things.

Participants were asked whether people moving away from Lyttelton had impacted on the community as a whole, and most agreed there had not been a major impact. Those who had moved away permanently were mainly young people who had lost jobs in the hospitality industry, and tended to be fairly transient in any case, according to some participants. However, one person noted that upcoming zoning decisions, to be announced soon after our research fieldwork, could potentially force a number of long-term community leaders out of their homes, and so the effects of displacement could be still to come.

Community engagement and empowerment

Strong community engagement before the earthquakes was seen by some as an important factor that helped Lyttelton to adapt. Participants said that Lyttelton had a pre-existing culture of volunteerism and

a history of self-reliance and community action going back many decades. Participants noted that until the recent amalgamation of Councils, Lyttelton also had its own mayor. One leader commented:

It's a community that's had a long history of social action. I'm thinking about the '51 waterfront lockout/strike...It's not been a community that's waited for authorities to come and rescue it, and that's because it was self-governing until relatively recently so that's probably a factor too.

It is against this background that participants described the strong community engagement in both the disaster response and the planning process for recovery and rebuild. Many residents wanted to be actively involved. Community leaders said that volunteers had to be turned away in the days following the earthquake because so many people had offered help. Community leaders and residents then 'got stuck in' with various initiatives to get the town functioning as best as possible. One community leader said: 'I don't want to be waiting for the (Christchurch City) Council to do it for us and most other people don't want to do that either. So we just do it'. This proactive community-led approach was described by participants as part of the processes of adaptation to change. One said: 'I think local action helps communities heal...its part of the healing process for a community to be able to do that'.

On the other hand, a minority expressed concern that the community leaders who were 'just doing it' were not necessarily representative of the whole community and had not been democratically elected. One felt that 'Old Lyttelton' was becoming marginalised:

It's sad to see...[The] older historic side of Lyttelton has been dissipated and lost their ...voice about the direction in Lyttelton and about who and what Lyttelton is. And it is being more directed by other groups that...haven't been here as long and they have a different idea about what they want Lyttelton to be.

Opportunities to get together

As noted above, the loss of pubs, businesses, and community facilities after the earthquakes impacted on people's opportunities to get together in Lyttelton. Participants agreed that creating alternative venues and events was vital – both for individual well-being, and for the community as a whole. For example, one resident said that after a disaster:

Coming together having common spaces is key, is totally key...Public spaces...having places where people go and feel comfortable, be warm and have those basic needs met like heat and running water and social contact with others.

In the longer term, people said adaptation at the community level was hindered by the continuing lack of facilities such as meeting venues and a community centre. On the positive side, new public spaces like the Lyttelton Petanque Court were described as very successful, and important for community resilience.

Community infrastructure

There was wide agreement that the pre-existence of active community organisations, with capable leaders, was a significant factor in Lyttelton's resilience. One community leader explained:

A lot of what happened in Lyttelton before the earthquake was the key to how we were so resilient after. Strong, active community groups, strong leaders within the community, a good level of knowledge about assets and resources within the community in terms of people [...] which mean they were able to quickly swing into action when they were needed.

As noted, Lyttelton has a remarkable number of community groups and organisations for a small community, all with different roles and strengths. Participants described how natural leaders emerged in the aftermath of the earthquake, and organisations such as the Volunteer Fire Brigade, Timebank, Information Centre, Community House, St John Ambulance and Project Lyttelton came to the fore. One resident commented:

Where you have people that were displaying good leadership like that and others that were prepared to follow the lead, that made a real difference and I think...it can probably happen much more easily in a small community like Lyttelton than it could in a bigger urban centre.

It was evident that the pre-existing relationships between community leaders and their in-depth knowledge of the community helped the organisations work together and marshal community resources effectively after the earthquakes. One participant gave the following example:

I mean the Timebank coordinator had a huge personal knowledge of who the Timebank members were, where and who in the community had what skills, and so on. So even without access to a computerised database...just knowledge that people were carrying around in their heads allowed things to happen that perhaps otherwise wouldn't have done.

Participants reported that the existing community organisations have continued to respond to the needs of the community throughout the recovery phase. One participant from the fire brigade noted:

A lot of the organisations are more proactive now, like there is the Community House...They do meals for the elderly...so I mean that's been instigated since February basically, and I think the likes of Lyttelton Information Centre, the Timebank, are a little bit more proactive now.

Community leaders commented that in the months after the earthquakes the interconnections between organisations had strengthened, and new collaborations had emerged. One said:

To me it's as though the energy's ramped up, and there's more happening, more relationships, more links, more, more ideas. The pace of life is much faster.

One participant commented that with all the community initiatives happening, communication between organisations and with the wider community was more important than ever. People said pre-existing organisations, such as Volcano Radio (the Lyttelton community radio station) and the Lyttelton Information Centre, had played a vital role in keeping the community informed, both immediately post-earthquake and ongoing. One resident said communication was fundamental to community resilience:

I think the means of communicating and gathering is so important to a community surviving. Having a communication network so everybody knows what's happening and it's easy to get that information...I think in every community that would be a different thing, a different way depending on the community itself.

External support

Many participants emphasised that support from outside the Lyttelton community had helped Lyttelton adapt following the earthquakes. Community organisations reported that they were not operating in isolation but with considerable support from both inside and outside the community. Participants said this was important practically, and in the moral support it provided.

The external support that participants saw as helpful at the community-level was wide-ranging. Examples included: funding for community initiatives from charitable foundations, corporate giving, and government agencies. Participants also talked about private donations and gifts from individuals and

groups, such as former Lyttelton residents who drove from other parts of the country with vehicles full of food, donations via the Project Lyttelton website, and food parcels from the Farmy Army at Christmas-time. Work and Income grants and government grants for small businesses were mentioned as important financial supports.

Several participants said they appreciated the practical support and calming presence of the Navy, who were in port when the February earthquake struck. Prompt provision of water tankers by the City Council was another example of practical support from outside the community. Some participants spoke about support from employers including paid time off work to engage in volunteer roles, and support from the NZ Fire Service for the Volunteer Fire Brigade. The local MP was also praised for being supportive of the community.

Community leaders were generally positive about the role that central government agencies had played, including the Canterbury Earthquake Recovery Authority (CERA), in providing support at the community level. One commented:

At the moment we're having more success with central government than the local council...CERA's been really good. And which central government agencies have you found to be helpful? Well, I've just found that recently the Ministry of Civil Defence emergency management. They seem to be trying to help us. They actually want to know and listen and take you seriously.

However, participants expressed much frustration about Christchurch City Council. Participants acknowledged that while there were some very good individuals working at the Council, on the whole, the Council was seen as more of a hindrance than a help to community recovery. In particular, several said that the costs and compliance conditions of the Council's consent process were unreasonable, and were hindering business recovery and community initiatives. One participant said:

Our neighbour...[owns] a little shed...that she had her real estate office out of, and all of a sudden because she was repairing the roof, she had to bring it [the whole shed] up to [building] code [standards] which meant putting in wheelchair access and a fire exit and a toilet and all these things which - it's a teeny weeny shed!...[There's] only a place for her phone and for the pictures of the houses that were in the window...So things like that, the council wanted \$10,000 from her as well for a consent. Like all these sort of obstacles to being able to set up again.

Residents were also disappointed with the lack of communication and engagement with the community regarding closure of public facilities and zoning decisions. The City Council was described as 'risk averse' and 'heavy handed' in closing the recreation centre and swimming pool, for example. One resident commented:

It would be much more useful if we were allowed to look at...engineering reports...and see where [their] logic has come from, and then we wouldn't be so bloody annoyed and angry about it, maybe we'd say: 'Well, that's a reasonable thing to be doing', but they just go and stick fences up.

Similarly, residents expressed frustration about zoning decisions, and a lack of communication about them at neighbourhood and household levels. For example, at the time of our fieldwork (16 months after the February earthquake), 'white-zoned' residents reported they were still awaiting decisions from authorities before their houses could be permanently repaired or demolished. One resident said 'you can't challenge white zone, you can't appeal. We just have to sit and wait'.

One community leader talked about the relationships between the community and various government agencies in terms of trust:

I think there's quite a high level of trust that people in the Lyttelton community have in CERA. I think there's quite a high level of trust probably in most of the other government agencies except maybe EQC. There's certainly not a particularly good level of trust in the Christchurch City Council, I think that's pretty much taken as read.

On the other hand, one community leader noted some council processes had recently become more streamlined. For example, people with business ideas can now have a 'one-stop-meeting' with council to discuss all the consents they need, including building consents, resource consents, and liquor licenses in one meeting.

Official decision-making processes

A community leader described the strong engagement in the process led by the Community Board to discuss the future of Lyttelton:

That public meeting was attended by four hundred people which just highlighted that people were ready to talk about the future even that soon after [the earthquake]... And so we did a kind of a consultation exercise where people wrote down what they thought, and collated it, and came up with a list of key things that the community wanted and...I think that was quite helpful for people at that time to start to think about the future, rather than just be focusing on keeping the electricity going, the toilets, because those were their primary concerns initially.

On the positive side, some residents found it empowering to have a say in the future of their town. On the other hand, several residents expressed frustration that the Community Board did not have the authority or budget to enact the wishes of the community. The current structure of local government was a pre-existing constraint that was seen as hindering the ability of the Lyttelton community to lead its own recovery. One participant explained:

We have one councillor who's supposed to represent Banks Peninsula, but it seems...when she's in Council she operates on a city-wide level, so she's not advocating for our needs. We've got a community board that does advocate for our needs, but it's powerless. The structure's completely wrong.

Several examples were given of community ideas for rebuilding and recovery that were 'on hold' pending decisions from the authorities. For example, participants explained that local people were very keen to get the swimming pool operational, and were willing to do the work themselves:

From a local perspective, you look at that pool, you think the pool itself is fine, the buildings are okay. You could fix those up. You could even have a little tent for a changing shed if you needed to. The issue there is the land stability [and] until [the Council have] had a [Geotechnical] report done, and there's no Geotecs around to do it, it's not clear what needs to be done. It's not clear what the community group could do. There's just like an organisational unwillingness to operate outside their existing processes that we battle against at times.

Despite frustrations, some community leaders felt that the earthquakes had brought new opportunities and a greater level of willingness and enthusiasm to work together as a community to make good things happen. Participants described how community confidence in their collective abilities had increased since the earthquakes:

[The earthquake response has] also shifted something in us too, hasn't it, that you realise that we're quite capable of doing these things. You don't have to be in receptive mode, you can actually, you know, get things moving [yourselves].

People's well-being

Problems in dealing with insurance companies and government agencies were described as stressors for individuals. There was evidence that the well-being of individuals had an impact on their ability to contribute to the community. For example, one participant said:

I think there will be things that make [life] harder for people as individuals and that might hamper their ability to be part of the bigger community or whatever. [You're thinking about people's houses and...] Yeah and just jumping through hoops and having to deal with money and stress and job...those everyday things, plus insurance companies and the Government...and inaction and inadequate processes, and all that kind of stuff.

One participant talked about trauma as a barrier to adaptation at the city-wide level:

I guess the thing that I've learnt is that traumatised people don't function very well. One traumatised person surrounded by functioning people is totally manageable, [but] an entire city of traumatised people does not work very well. Mistakes will be made.

On the positive side, several community leaders reported being energised by the success of their community initiatives. As previously noted, participants said contributing to the community was good for well-being, and in turn high levels of well-being enabled people to continue to contribute. None of the community leaders talked about being burnt-out by the months of hard work they had put in.

Survival skills

Some participants said that because many Lyttelton people had worked at sea, they understood the forces of nature, had been brought up to be tough, and had the practical skills to 'make do' in a disaster situation. One commented that older people perhaps had better survival skills than younger people, because of their upbringing.

Several people commented that the lessons learned in the September earthquake enabled better preparedness and adaptation in February. At a household-level, people talked about having supplies of drinking water stored, for example, and alternative cooking facilities in case of power outage. Community leaders also talked about organisational preparedness improving after the September earthquake.

For both individuals and the community as a whole, having some light relief from the problems of daily life was seen as important for sustaining resilience. Music, community festivals, and other community events were valued by many Lyttelton residents for fun and togetherness.

Some participants talked about having regular trips out of town to 'recharge their batteries'. One said: 'It's good to get out of Christchurch and Canterbury, it's very good for people, even if it's a couple of days here and there'. Others talked about the importance of fun social events:

We're lucky with the group of women we've always...got together and we let go...And we've made it a point on a Friday night like once a month or something, everyone just brought a plate and wine and we just sat here afterwards and all sort of [caught] up and talked.

Extent of adversity

As noted above, ongoing adversity and uncertainty has been a fact of life for those with damaged houses or businesses in particular. Participants noted that residents dealing with ongoing employment

or housing problems were finding it more difficult to cope than others. Some key community organisations such as the Volunteer Fire Brigade and the Information Centre are facing ongoing challenges because of damaged or destroyed premises.

The community as a whole endured significant losses, as outlined in the introduction. The loss of many retail and hospitality businesses has had a major negative impact on the community, for example, with one participant estimating that 50-60 jobs had been lost. Some commented the historic character of Lyttelton was a strong aspect of the community's collective identity so the loss of historic buildings was deeply felt. People also said the loss of churches was deeply felt in the community, even though few Lytteltonians were regular churchgoers. Several commented that funerals of local people now needed to be held in Christchurch. One participant said:

We had some beautiful churches here in Lyttelton, old stone churches, and they were all basically flattened, and they've all now been demolished and taken away. And so there's now nowhere really in Lyttelton for people to hold funerals and christenings and weddings, and all that sort of thing, which always used to happen within the community...Suddenly all that's gone, and that's actually had an effect. It's not something that can be replaced quickly.

On the positive side, there was no liquefaction, so people did not have to clean up silt or endure ongoing problems with dust and sewerage. Most basic services were intact or quickly restored, as this resident explains:

We lost power reasonably briefly, but we lost water for quite some time and the council quite quickly had water tankers here at Lyttelton and water available... In Lyttelton we were very lucky because we didn't have liquefaction and a lot of the other issues that they had in Christchurch where people couldn't actually use their toilets because all the sewage systems were down and that. Here in Lyttelton we dodged a lot of those more serious effects.

The same participant said that Lyttelton's major employers had played an important part in community resilience by continuing their role in the local economy:

The main businesses that service shipping in Lyttelton did a fantastic job of basically keeping going. The Lyttelton Port Company had huge issues, but kept all their staff employed, and they were receiving ships within a couple of days after the earthquake. There was huge damage to the wharf area, but they worked around it.

Another participant commented that re-establishing a sense of normality was as important as the practical and economic aspect of getting businesses up and running quickly:

So the fact that the Farmers' Market kept running, the dairy kept running, the coffee shops in their new premises kept going -all of that has got huge value because it represented normality, a sense of doing things in a normal way.

Summary

Participants reported that the Lyttelton community mobilised very quickly following the February earthquake. Many community organisations worked together to address the immediate needs of community members, and these efforts were largely carried out by trained volunteers, with support from other members of the community. Informal support between friends and neighbours also occurred. Community organisations were generally well supported, both from within the community and by government agencies and funders, and through private donations.

The community response was described as beneficial for the well-being of community members. Participants reported that connecting with others and feeling cared for were very important. People were also glad of practical support with food, accommodation, emergency house repairs, and so on in the immediate aftermath of the earthquake. People also said that being able to contribute and help others was good for their own well-being. In the longer term, community events, creative activities, and new venues like the Lyttelton Petanque Club provided opportunities to get together, as well as light relief from ongoing difficulties. People reported feeling proud of how Lyttelton had responded, and this provided energy and enthusiasm for further altruism and community action.

Participants thought that the resilience of the Lyttelton community was largely because of the strong community spirit before the earthquakes and the existence of many active, well-supported community organisations with capable leaders. Participants reported that the earthquakes had made the community closer and friendlier, and forged new connections between people and between organisations. At the same time, social connectedness was negatively impacted by the loss of pubs, shops, and other places where people used to meet. Social connectedness helped the community adapt to adversity, but for some individuals displaced by the earthquake, adaptation was difficult because they were physically removed from their social support networks in Lyttelton.

Participants believed a culture of volunteerism and a 'do-it-yourself' ethic had helped the community to adapt. They explained that Lyttelton had a history of community action and self-reliance. As a result, community leaders and community members expected to play an active part in the disaster response and recovery, rather than waiting for help from outside agencies. Hence, some businesses and community initiatives were up and running quickly. This was described as having symbolic significance as well as practical and economic benefits to the community, and people reported that engagement in recovery efforts helped to counteract a sense of powerlessness, and provided a positive focus for those who contributed. However, there was considerable frustration expressed about 'red tape' getting in the way of community action and business recovery. In particular, there was a perception that the City Council was unnecessarily inflexible in applying rules and regulations, and was not communicating well about decisions.

Despite significant losses and ongoing adversity, Lyttelton community leaders reported high levels of energy in the community to continue to work together to adapt, recover and rebuild. Some said the earthquakes had brought opportunities as well as losses, and they were excited about the future of Lyttelton, in both the built environment and community life.

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Appendix 2: Shirley Case Study Report

Acknowledgements

The Canterbury earthquakes have had, and continue to have, a huge impact on all who live in the region. The researchers gratefully acknowledge all the people who took part in this research. We thank the participants for giving their time during a very difficult period, and for sharing their views and experiences. Their reflections and insights have directly informed the potential learning from this research.

Community profile

Shirley is a suburb of around 7,000 people located about 5km north-east of the Christchurch city centre. Shirley comprises two census area units: Shirley East and Shirley West. At the 2006 Census²⁹, Shirley had greater ethnic diversity than Canterbury as a whole, with a higher proportion of Māori and Pacific residents, for example.

The median personal income in Shirley was significantly lower than that in Canterbury as a whole, with a higher proportion of single person and sole parent households (Statistics New Zealand 2006). A large Housing New Zealand (public housing) block makes up a significant proportion of dwellings, and the local primary school, Hammersley Park School, is decile one (most deprived) (Christchurch City Council 2011).

According to the Christchurch City Council's 2011 community profile for Shirley (which also includes the Mairehau and Richmond North census area units), the number and reach of community organisations is relatively low in Shirley compared to other communities in Christchurch. For example, there were only four community organisations (one for every 3, 250 residents) and five meeting venues identified in the community profile.

Impact of the earthquakes

According to the Christchurch City Council's community profile, the September 2010 earthquake had some impact on the Shirley area with liquefaction and damage to roads. The February 2011 earthquake caused significant damage to land, property and utility services such as power, water and wastewater. Liquefaction occurred on properties and roads, causing damage and dust issues. Local residents faced much disruption, hardship, and displacement in the weeks following the earthquakes (Christchurch City Council 2011).

Methods

Community resilience is defined as the process of communities adapting positively to adversity or risk (Kobau et al 2011, National Mental Well-being Impact Assessment Collaborative 2011). This research project gathered information from affected Canterbury communities to understand what helped (and hindered) their resilience. The research does not evaluate the effectiveness of community responses. Rather, it examines and describes a selection of those responses to identify factors that build community resilience.

²⁹ The most recent census data available is 2006. The 2010 census was postponed because of the Christchurch earthquakes.

We held focus groups and interviews with 92 Christchurch participants. This case study is one of six:

- Lyttelton
- Shirley
- Inner City East
- marae communities
- migrant and refugee communities, and
- Christchurch Community House (as a workplace community).

The research focuses on post-earthquake recovery from February 2011 to July 2012. We carried out the fieldwork between May and July 2012, approximately 16 months after the destructive February earthquake. We wrote up the fieldwork in October and November 2012, and then sought and incorporated input from the advisory group, key contacts from the case-study communities, government agencies, and the two funding agencies – the Health Research Council of New Zealand and Canterbury Medical Research Foundation. We finalised the report in early 2013.

As the Shirley case study is part of this larger research project, it should be read with the full report, which gives further detail on the methods, limitations, and implications of the work.

Participants

This case study focuses on one community organisation – Shirley Hub/Te Puna Oraka ('the Hub') – and the experiences of some residents known to that organisation, most of whom live in public housing. The findings are based on one focus group with 12 participants held at the Hub, and one interview with a former employee of that organisation. Of the 13 case-study participants, seven identified as Māori and six identified as NZ European or 'New Zealander'. Focus-group participants were mainly residents rather than community leaders. More than half had lived in Shirley for twenty years or more.

It is important to note that this case study presents the views of a small number of participants, and may not necessarily reflect the experiences of Shirley residents more broadly. It provides insights into the particular challenges faced by a vulnerable sector of the community, and does not aim to tell the whole story of Shirley as a suburb after the earthquakes.

Key organisations

Shirley Hub/Te Puna Oraka

The Hub provides a base where families with young children living in the Shirley area can access services to support their parenting, and improve health and well-being outcomes for children aged from birth to six years (Early Start Project, n.d.). Services include early intervention assessments and referrals for children under six years of age, and a programme of parenting activities and workshops provided on site. A social worker and community worker provide an outreach service to local families, working with a wide range of health and social service providers in the area, and using a community development/early intervention approach (Canterbury webhealth, n.d).

The Hub was set up in late 2008 as a partnership between Barnardos and the Early Start Project. Family and Community Services, a service line of the Ministry of Social Development, is the main funder of the service (Early Start Project, n.d).

Other community organisations

Other community organisations in the area include: the Shirley Community Trust, which incorporates the Neighbourhood Centre in Macfarlane Park; Shirley Community Centre on Shirley Road (now closed because of earthquake damage); and the Neighbourhood Centre in Acheson Ave. The Neighbourhood Trust in a neighbouring suburb, St Albans, also has some reach into Shirley through collaborations with Shirley organisations. Shirley/Papanui has a Community Board which represents around 60,000 people in almost 23,000 households.

Findings

Effects of earthquakes on well-being

The earthquakes had dramatic effects on individual and collective well-being. People said the stress of earthquake-related problems added to existing stressors which, for many participants, were considerable. A former Hub employee said:

There's a high degree of poverty in [the local] community, low literacy...low number of families with cars etc., and to a certain extent they just felt that the earthquake damage was just... 'one more load of shit on top of all the other shit that happened to us around here'.

Residents said that uncertainty and fear of continuing aftershocks were hard to cope with, and some people responded by staying at home more. Staying at home meant less engagement with the community and more time on their hands. This possibly contributed to feelings of anxiety, as the following quote suggests: 'Just sitting round worried about what's going to happen next... you're always on edge wondering when [the next earthquake will be]'.

One participant reported that, because of the stigma of mental illness, people who had a severe emotional reaction to the aftershocks did not always seek help. Others agreed it was difficult to ask for either practical or emotional help. One resident said: 'I don't ask. I was brought up never to ask'.

Community responses to the earthquakes

Participants spoke about the following community-based responses to the earthquakes.

Immediate – first days

Informal emergency relief

In the immediate aftermath of the earthquakes, residents helped neighbours, friends, and whānau (extended family) by helping dismantle broken chimneys, sharing food and cups of tea, providing accommodation for those whose homes were uninhabitable, and collecting and distributing food and water, for example. As well as practical help, the emotional support from getting together with others was also described as important. One participant, who worked in Shirley but lived elsewhere, commented that the informal support in Shirley was similar to that in other parts of Christchurch. She said: 'Like everywhere else...it was absolutely fantastic and some individuals opened their homes, and fed the neighbours for three weeks, and all that kind of stuff'.

A long-term Shirley resident and employee at the Hub took on a leadership role responding to the needs of young families. She described how she set up a small team of volunteers from outside Christchurch at the Neighbourhood Centre to look after a precinct of elderly residents. The same community leader reported she had struggled to find local people to help, and that children had played a key role running errands and removing silt:

I relied a lot on our young kids – some of our youth – but more twelve-, eleven-, ten-year-olds. They were actually going everywhere helping, just helping people sifting silt and things like that.

Residents emphasised their view that none of the major emergency relief organisations were active in Shirley, so people had no option but to rely on their own resources, not only in the first few days but in the weeks and months that followed. Residents commented:

P1: We used ourselves, we really had to.

P2: We had no choice.

P3: You know the neighbours were helping neighbours but when it came to services and stuff like that, there was nothing around here.

Food and water distribution

Participants explained that no local food stores or petrol stations were open, so access to food and water was a significant problem.

The Christchurch City Council 'Community Profile' for Shirley reports that 'immediately after the earthquake a recovery information centre and recovery assistance centres were set up to support this community' (Christchurch City Council 2011). The Hub was one of these centres, and became a distribution point for food, water, blankets, and other essential supplies. One participant said free food had also been available from the local Scout Den.

However, many participants reported they had not been aware of these centres. One explained that people did not know where to look for information or supplies: 'Wherever you went the shops were closed, so when you find out all the services are shut, where do you go after that?' Participants reported having to walk to the neighbouring suburb of Linwood for water, and travelling to Papanui or Aranui for food, petrol, and other supplies.

Silt removal

A community leader said that, other than local children, those who helped with the silt removal were mainly from outside the Shirley area. 'The three main people I had was two Māori wardens³⁰...and...the Little River response team. They're the ones who cleaned up a lot of this area'. Participants also briefly mentioned the valuable roles played by the Student Volunteer Army and the Farmy Army³¹.

Early weeks and months

Informal support

As noted above, informal support between neighbours, such as provision of food or accommodation, sometimes continued for weeks after the earthquakes. People also talked about continuing to gather

³⁰ Māori wardens are trained volunteer workers who give advice and have minor disciplinary powers in Māori communities. They are visible at community events, providing security, traffic control, crowd control, first aid and confidence for the public. The Māori wardens form a national organisation which functions under the jurisdiction of the New Zealand Māori Council, and with the support of Te Puni Kōkiri who support the wardens with training and development opportunities.

³¹ These were volunteer organisations (staffed mainly by university students, and people from farming communities surrounding Christchurch respectively) that were quickly mobilised through social media and informal networks to help with the initial clean up after September and February earthquakes.

together for emotional support when there was a significant aftershock, particularly in the weeks after the February quake.

The local Rugby League Club had power and water restored relatively quickly, so one community leader organised volunteers to take elderly and vulnerable people there for hot showers.

Community response by Shirley Early Years Hub

The Hub is mainly a parent and family support service for vulnerable families with pre-school children. After the earthquakes, the three staff took on a broader role, reflecting the needs of the community at that time.

For example, soon after the September 2010 earthquake, the Hub initiated a monthly community newsletter circulated to 1500 homes. As noted, the Hub became a food and water distribution centre and generic community centre for several weeks following the major earthquakes. Employees from the Hub took on an advocacy role, e.g. contacting the authorities on behalf of the community to advocate for delivery of water tankers and portable toilet cubicles to particular neighbourhoods in need. They also did some door-knocking, to check on people's welfare, and helped people to apply for Red Cross grants. Employees from the Hub were instrumental in setting up community meetings about specific post-quake problems (e.g. problems with Housing New Zealand properties, problems with portable toilets).

Support for workers

A participant reported that the Hub manager had arranged a 'mindfulness meditation' course for the Hub workers, to learn strategies together for managing and coping with stress and trauma after the earthquakes.

Māori wardens

As noted above, the Māori wardens played a key role in clean-up efforts, and carried out door-knocking in the Shirley area in the months following the February 2011 earthquake.

More recent/ongoing

Community events

Employees from the Hub organised various family-focused community events, such as an open day at the Hub, a street party, cooking classes, and Aotearoa Neighbourhood Day. They also ran a summer holiday programme for children. However, a former employee reported that these initiatives were poorly attended.

Community action

In partnership with the Neighbourhood Trust, employees from the Hub attempted to engage the community about the future of Shirley via billboard advertising and a 'text an idea' campaign. However, the campaign was reportedly unsuccessful in encouraging community dialogue.

Effects of community responses on well-being

Residents agreed that connecting with neighbours and whānau was important, and some said that just being together helped them to cope. One described how in the immediate aftermath of the major earthquakes and aftershocks, gathering together in someone's backyard with a cup of tea had helped to calm everyone's nerves. Getting drunk together was also described as one way that people coped in the first few weeks after the February quake.

Several participants noted the earthquake experience had prompted changes in people's priorities or attitudes, such as feeling 'calmer' in general. One commented the earthquake had 'brought us back to reality and what was important...it made you stronger in your family relationships'. The increased social support between neighbours helped people to cope, e.g. one resident commented:

I think it's brought the community a lot closer together. Walk down the street a couple of years back, people didn't acknowledge you or speak to you. Walk past the people now and you can see that they're lonely, and all it takes is a smile and a 'hello how are you today'. Something so simple can make someone's day.

One participant described the provision of basic needs at the Scout Den as 'awesome', and another said that the Student Volunteer Army did a 'marvellous job'. These supports were clearly appreciated and had a positive impact. Participants who had been linked in with the Hub previously said the support they received had helped them cope after the earthquakes. For example, two people thought that the Hub had prevented them turning to drugs or violence:

P1: I might have killed one or two people.

P2: It's the same with me really. I think if I didn't have [the support of the Hub] since the earthquake, I probably would have went back to my lifestyle I had before I had my children, because I don't think I would have been able to cope without drugs if I didn't have [the Hub's] support, yeah.

Participants said that having a trusted person at the Hub, who listened and helped them to gain a sense of perspective, was very helpful. One said that the place itself was important to him:

My daughter was part of this kindy when she was younger, and I was part of this place, so yeah, this is quite a special place for me...I've got good memories here with my daughter. They've even got photographs of her here, yeah. [Coming here] just gave me some sort of sense of something that was positive that I could still hold on to, in a good way.

Although the Hub was valuable to these individuals, other participants reported they were not aware of the community support available, either through the Hub or other centres, after the major earthquakes. One resident commented: 'When it happened, there wasn't enough services around in Shirley. There was buggar all here...September, February. Down our street, all we got was dust mate, bloody dust'.

The positive impact of local community responses seems to have been limited by low awareness of what was on offer. Despite the community newsletter and door knocking efforts of Shirley Hub employees and Māori wardens, a strong theme in the Shirley focus group was lack of awareness of the services and support available within the community. One resident commented, for example:

The amount of times in the past two or three months that I've been told 'oh, if you'd come to us, we would have offered you this and that', but how the hell was I supposed to know they had that to offer? Nobody told us.

Participants also reported low awareness of respite services that had been offered outside of Christchurch by Māori communities, as this participant explains:

There were a lot of maraes around the South Island who opened up their doors, but no one in Christchurch knew. Like all they had to do was go to a marae, [where there was] free accommodation, the food was put on, the tents were up, [but] nobody knew they were there. So where does that information come through to the suburbs?

Timeliness of information and services was seen as critical. Door knocking by the Māori wardens, for example, was criticised by one participant as happening too late to be helpful. 'The Māori wardens started coming [and] this is about blimmin' nearly a year later when everything's all died down'.

Factors that affected community resilience

Participants identified many factors that helped (or hindered) the Shirley community's ability to adapt after the earthquakes. These factors are grouped into eight headings:

- community connectedness
- opportunities to get together
- community infrastructure
- external support
- official decision-making processes
- people's well-being
- survival skills
- extent of adversity.

Community connectedness

Comments from community leaders and residents suggested that, before the earthquakes, there had been relatively low levels of community connectedness and trust in the focus-group participants' neighbourhood. For example, an employee from the Hub said that before the earthquakes, they had visited homes but often received a negative response to suggestions that neighbours get to know each other. '[It was] really surprising how many doors we knocked on [and] people are like 'nah, don't want to know my bloody neighbour ra, ra, ra''. Pre-existing communication networks between residents also seem to have been limited. It was evident that, after the earthquakes, word-of-mouth was not an effective information channel, at least in this particular neighbourhood.

On the other hand, one long-term resident and community leader said that Shirley is a place where people pull together in times of trouble. She said the presence of other long-term residents with community values and leadership skills was a vital catalyst for this pulling together to occur after the earthquakes.

The earthquakes had both positive and negative impacts on community connectedness. Participants agreed that Shirley had become friendlier since the earthquakes, and that people looked out for each other more. One resident said:

It's taken an earthquake for us to help one another. Like, was this happening before the earthquakes?...Would we acknowledge our neighbour if there was no earthquake [or] would we just get in our car and drive? Now...we talk as neighbourhoods and neighbours.

Other residents commented that the earthquakes had reduced barriers between people, e.g. 'there's no class distinction in an earthquake...everybody is in the same boat'.

However, a former Hub employee said that the sense of community been negatively impacted by people leaving the suburb permanently, clusters of empty homes, and people tending to stay at home more. She said:

I think the sense of community was pretty decimated in some respects...families were talking about 'I don't know my neighbour any more', I don't even know where they've gone' and other people were talking about, you know, 'I'm the only house that's left in the street, [the] other sections are empty'.

According to participants, there were several drivers for people leaving Shirley. At first, many people left because their homes could not be lived in, or because the lack of basic services (e.g. power, water, sewerage, food outlets, medical services) and the problems with silt and dust made living in the suburb too difficult. More recently, a number of Housing New Zealand tenants were required to move because their houses were assessed as unsafe. Some families have also been forced out of private rental properties because of dramatic increases in rent – up to 40%, according to one participant – because of a city-wide housing shortage.

One participant commented that new families taking up local rental properties were often short-term residents needing somewhere to stay while their homes (in other suburbs) were repaired or rebuilt. She said they tended to take their children elsewhere for school and recreation, and felt that this demographic change had had a detrimental impact on community connectedness in Shirley.

One resident expressed a strong sense of place, saying: 'This is my home town, I'm a Cantabrian, I've been born and bred here'. However, others who were still living in Shirley at the time of the focus group were not necessarily happy to be there, mainly because of ongoing problems with dust and unrepaired houses. Although some expressed a commitment to staying in Christchurch, several people said they would leave if they had the financial resources to do so. One said:

If I had the money to go anywhere, I'd be gone. Without any money to go anywhere you're just surviving – [you] pay your rent, pay your power, pay your food, and you just get through every week.

Most participants did not express a sense of connection to Shirley, or to their own particular neighbourhood.

Opportunities to get together

Opportunities to get together socially was not a key theme in the Shirley case study, as participants were more focused on discussing material needs such as housing. However, participants mentioned that the loss of the churches meant the loss of a valued weekly get-together:

P1: [The churches] were a part of our community. Remember the Friday meals they used to have down there? And you get all the community together, you see. Well after the quake they're – bang – nothing.

P2: Gone

Participants said the local shopping mall (the Palms) was closed for nearly a year, suggesting a loss of incidental opportunities to get together.

As noted already, the Hub attempted to provide opportunities to get together through various community events, but had limited success. A former employee said that fear of aftershocks and collective fatigue were the main factors in poor attendance at community events, rather than lack of publicity. She said:

There was a real sense of people wanting to stay at home and shut the doors you know...You'd leave work and people were –there was just no one around, everyone had gone home, shut the doors, waiting for whatever was going to come next.

She explained it was difficult to get any momentum behind community initiatives, despite the best efforts of the Hub's employees. Although the Hub broadened its scope after the earthquakes, engaging with the wider community proved to be challenging. The same participant explains:

We tried all sorts of things, hoping that different things would engage different people, but that's not what happened. When we had engagement it was with the same people all the time.

She also believed that limited engagement or community action in Shirley post-earthquakes was because of earlier experiences of powerlessness. She said:

[There was a] lack of interest based on, you know, [the assumption that] 'we've been overlooked for so long, this isn't going to change anything' ...because their experience has been that their voice hasn't been listened to in the past, so why should it be listened to now?

However, there were several examples where residents did engage collectively on issues that were of immediate relevance and importance to them. For example, a community meeting about managing portable toilets engaged a number of residents:

[We] put on a meal one evening and we had a meeting around portaloos, how to manage portaloos in the community. That was the most successful thing we did, we had about twenty people turned up for that.

Community infrastructure

Before the earthquakes, Shirley had a relatively small number of community organisations and community workers compared with other suburbs. According to participants, community capacity has been further reduced since the earthquakes because of losing community infrastructure (e.g. churches, community centre).

Participants described how the few organisations that were still functioning did their very best with the limited resources available. The community-driven initiatives identified in this case study appeared to hinge on the small number of committed and capable employees of the Hub who were willing to work long hours and go beyond their normal roles. Two enablers identified by one participant were good staff and a flexible, common-sense approach to meeting the observed needs of the community. She said:

At the end of the day it comes down to the people who are there, and I mean we took the approach of throwing all policy out the window, basically, after the earthquakes for a good couple of months, and [we were] just relying on the integrity of the people who were working [there]. And my view is that that's what it's always going to come down to... you rely on good staff.

She explained that they bent the rules but stayed true to the basic principles and ethos of their service: 'We didn't worry about what the book said about risk management, we worried about was everyone safe'.

Another factor that helped the Hub to respond following the earthquakes was a monthly interagency meeting with other community support workers in the Eastern suburbs. Collaborating to identify needs and issues, and address problems, in partnership with other organisations was seen as very helpful by community leaders.

Knowledge of and access to community resources was also a helpful factor. For example, one participant mentioned it was lucky they had a key to the Rugby League Club, since this enabled them to access this facility and provide hot showers to vulnerable residents.

External support

As already noted, there was a perception amongst focus-group participants that Shirley had been overlooked by the authorities, and that a lack of emergency response services had made it harder for the community to survive and adapt. Both the actual lack of access to services and supplies, and also the sense of being forgotten and isolated, seem to have reduced community resilience. In particular, participants highlighted that older and disabled people were especially impacted by a lack of services. One reported problems getting a wheelchair-accessible portable toilet delivered to the neighbourhood, for example.

Community organisations reported sometimes feeling marginalised, rather than supported, by the authorities. For example, one community leader talked about how she had advocated on behalf of the community to get portable toilets in streets that had been missed out, and finally resorted to a 'barter' arrangement in desperation:

Like when they even delivered the portaloos...28 portaloos were situated down [X] Street alone, [but] only half of [X] Street was affected. We had nothing down [Y] Street, nothing down [Z] Street, it took months, didn't it? Yep, basically the only reason we did get a couple of those portaloos was because of the two truckloads of kai (food) I sent to Avondale to the lady who works for the council and [she] sent us out two portaloos. That should not have had to happen.

One participant commented that, in her view, Avondale had also missed out on official support, compared with some other Eastern suburbs. There was concern that distribution of services and supplies by authorities did not seem to be based on an accurate assessment of need.

Lack of communication and timely information from authorities was a related theme. One community leader said that the answer to every question put to the authorities in the days following the earthquakes was 'check the website'. This was unhelpful and inappropriate since she, and most of the rest of the suburb, had no electricity.

Some participants said there was nowhere they could go to get face-to-face help from Red Cross or government departments, for example. They said:

P1: As far as services go, there was bloody nothing, nothing at the shops, nothing up – ...Here we are, stressed to the max – everything's closed.

P2: We were all getting sent to the Shirley Library but not even there, there was nobody that we could talk to.

On the positive side, employees from the Hub reported receiving external funding for the community newsletter and 'text an idea' campaign. Without this funding, these initiatives would not have occurred. A Hub employee also reported good external support from a Housing New Zealand tenancy manager who was very responsive when she advocated on behalf of her clients:

Straight after the earthquakes, one of the housing managers for this area was really great, you know...I could email him, give him the address, give him the name, and he was auctioning [it] straight away.

There was a perception that Housing New Zealand had later become less responsive and harder to communicate with because of policy changes³². For example, one participant said she had been turned away from the Housing New Zealand office in Papanui because ‘they don’t accept walk-ins, it’s all over the phone’. Residents said that the free-phone number for Housing New Zealand was unsatisfactory, since they had trouble getting through. One resident reported they had waited for 46 minutes for their call to be answered. Residents reported poor living conditions in their rented accommodation, and problems with assessments and slowness of repairs. They wanted more responsiveness, support, and ‘accountability’ from Housing New Zealand, and opportunities for face-to-face communication to solve problems at both household and community levels.

Some felt authorities did not acknowledge the adversity they were suffering. Participants said it was hard to adapt post-earthquake, as they felt their genuine concerns were not being treated as valid. This felt hurtful and undermined emotional resilience. Participants said:

P1: The council and the Housing were the same

P2: They said ‘you fellows are fine’

P1: Yes, yes. And that’s what made it hardest – we felt we had to qualify.

Employees from the Hub reported that the interface with Christchurch City Council had not been particularly good, before or immediately after the earthquakes, but later progress was made when a new employee came on board with the City Council as part of the earthquake response. However, this was short lived because the Council employee went on to work for the Canterbury Earthquake Recovery Authority (CERA) and the manager of the Hub also left about the same time.

Official decision-making processes

Community leaders and residents said they were engaged collectively in trying to address problems with tenancy issues and housing repairs with Housing New Zealand, e.g. by calling public meetings. However, they felt Housing New Zealand management had not listened, as this former Hub employee explained: ‘On several occasions they said to us ‘yes, they’d come, and we’d get meetings set up – and they just didn’t turn up. That really was not helpful’. Another community leader expressed her disappointment and frustration at what was perceived as an unwillingness to engage and communicate with the Shirley community. She said: ‘I understand they felt under siege, but a bit more openness from them would have made a big difference’. This example illustrates how attendance at a community meeting (or not) by a high-level official can impact on a community’s sense of empowerment (or disempowerment).

People’s well-being

Low levels of individual well-being, both before and after the earthquakes, may have hindered community resilience overall.

People reported feeling tired and worn down by cold and damp houses, problems with dust, , lack of services, and the sense that their suburb had been forgotten. Adapting to ongoing change and continuing challenges of daily life was undoubtedly difficult in this vulnerable emotional state. One

³² In February 2012, Housing New Zealand changed its policy to a national telephone-based service to provide immediate support to tenants. It still maintains a Tenancy Manager workforce which has a role of working face-to-face with tenants and applicants.

person summed it up by saying that the remaining residents were ‘resilient and probably more generous with each other – but not far below the surface is the anxiety, the tiredness’.

Survival skills

As individuals, people said that prior survival experience and skills helped them to be resilient. One referred to his experience in a previous major earthquake, and said he knew what to do and was able to lead others because of this experience. Some residents thought that older people had coped better than younger people, because they had grown up without electricity and knew how to cook over an open fire, for example. Others said that simply being used to deprivation and hardship had given them survival skills and resilience, as this quote illustrates:

P1: Do you know what I think it is? I think because when you're low socio, you've got nothing to lose and you're a survivor anyway.

P2: We were already in hardship before the earthquakes

P1: And I think this is why our community can survive.

Residents commented that having alternative means of heating and cooking had been important, given that electricity was not reconnected for months after the earthquakes for some residents. One mother's policy of never renting a house without a fireplace had proved to be prudent, and she commented that her son had learned a valuable life lesson from this.

One person noted that good nutrition, getting enough sleep and exercise, and finding time for relaxation were important for well-being and resilience. Others mentioned the importance of hope, and finding the funny side in a bad situation.

Extent of adversity

As noted, Shirley was severely impacted, particularly by the February earthquake. Adversity has been severe and ongoing. Residents had to cope for weeks or months without basic services such as electricity, running water, and sewerage. Silt from liquefaction was a major problem at first, and, according to participants, the resulting dust was still a problem at the time of the focus group (17 months after the February earthquake). Participants noted that many residents did not have a car, and public transport services had been disrupted. While transport problems were an issue for some residents before the earthquakes, the disaster exacerbated the problem. Lack of shops and medical services were also problems for many months, as this participant explains:

[We had] no supermarket, we had to travel for miles to get - we had to go to Papanui. There were no bus services, there were no services, so what do you bloody do in a crisis like that?

These losses heavily impacted on people's ability to get on with life, to the extent that many people were forced to move.

The exodus of families has had a knock-on impact on schools and early childhood centres in Shirley, whose rolls dropped dramatically. For example, one participant noted that the roll of the local primary school went from 120 to 45 children, and some of the early childhood centres were struggling to stay open³³.

³³ Since the focus group, the Government has announced a proposal to close or merge a significant number of schools in Christchurch, including several in Shirley.

The ability of community-based services like the Hub to support community resilience has been hindered by ongoing demographic and social changes, as this former employee explains:

We were finding it very difficult as an agency to know how to respond because...45% of our target families had disappeared and were being replaced with families who were largely taking their children out of the community and, you know, it makes it hard to plan service delivery. We were just trying to respond to what's in front of you this week.

At the time of writing, more than two years after the first earthquake, it is still unclear what the 'new normal' will look like in Shirley. Major changes to the built environment, social support and education infrastructure, and demographic make-up of the suburb are still underway.

Summary

The participants in this neighbourhood-level case study reported that they responded to the earthquakes as best they could, given the limited resources available and pre-existing constraints. Many individuals and community leaders showed great altruism and personal dedication in the help they offered others, such as providing food and accommodation, and advocating on behalf of vulnerable residents.

Informal support between friends and neighbours was described as beneficial, particularly in the early days and weeks after the February earthquake. The support offered by community organisations was said to have improved the well-being of those it reached, but many participants reported that they did not know about the recovery assistance centres available in the Shirley area, or respite accommodation offered by Māori communities around the South Island, for example.

According to these participants, the process of adaptation in this neighbourhood after the February earthquake has been helped mainly by the commitment, perseverance, and survival skills of its community leaders and residents. Participants reported that Shirley's community workers were very committed and hard-working people.

These residents said that community resilience was hindered at first by a lack of external support from authorities, and poor communication flow about the support and services available to Shirley residents. Factors that made it harder for the community to adapt in the long-term included the severity of the adversity and losses faced, and the ongoing nature of problems with aftershocks, sewerage, dust, housing, and access to services. Changes and losses are continuing as the changing demographic make-up of the suburb affects the viability of schools and services. Poverty and social disadvantage were pre-existing challenges in this community, and their effects were made worse by the earthquakes.

It is important to note that this case study was relatively small (only 13 participants, mostly from one neighbourhood), and the views of participants may not necessarily reflect the experience of Shirley residents as a whole.

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Appendix 3: Inner City East Case Study Report

Acknowledgements

The Canterbury earthquakes have had, and continue to have, a huge impact on all who live in the region. The researchers gratefully acknowledge all the people who took part in this research. We thank the participants for giving their time during a very difficult period, and for sharing their views and experiences. Their reflections and insights have directly informed the potential learning from this research.

Community profile

The Inner City East area is just to the east of Christchurch's central business district. Its borders are the streets: Madras, Cashel, Stanmore, and the Avon River. The area has an estimated population of approximately 3,500 people (personal communication, Te Whare Roimata).

This mostly residential area falls within two census area units – Avon Loop and Linwood.³⁴ The census-based information is drawn from both area profiles. Compared with the overall Canterbury region, Inner City East is a more deprived area. It has lower incomes and much lower rates of home ownership (Statistics New Zealand 2006). The local primary school, Christchurch East School, is decile 3 (where decile one is the most socioeconomically disadvantaged).

The area is more ethnically diverse than Canterbury as a whole, with fewer European and more Māori, Pacific, and Asian residents (Statistics New Zealand 2006).

The Christchurch City Council (2011) has estimated the central city area³⁵ has 16 community organisations, 10 residents' groups, and three meeting venues – or one community organisation for about 220 residents. The council's community profile rates highly the central city in terms of community development organisations and connectedness (as measured by the number of neighbourhood support groups and residents associations, and access to networking forums).

The Inner City East has a long history of affordable housing for low-income people. Most of the cheaper housing is privately-owned, but Christchurch City Council and Housing New Zealand Corporation provide some social housing. Single men have typically occupied rental bedsits and boarding houses – often older people estranged from their families, and at risk of being isolated (Canterbury Anglican Diocese Social and Environmental Issues Unit 2012).

Impact of the earthquakes

The central business district and surrounding residential areas sustained significant damage, especially from the February earthquake. It damaged land, property, and utility services such as power, water, and wastewater (Christchurch City Council 2011). Power remained out in parts of the central city area for many months, and properties and roads were affected by silt from liquefaction.

³⁴ The most recent census is 2006. The 2011 census was postponed because of the February earthquake.

³⁵ The 'central city area' comprises Avon Loop, Cathedral Square and Hagley Park census area units.

The significant devastation, loss of over 180 lives, and thousands of injuries have severely impacted residents and business-people. It is also estimated that 30-50% of buildings in the central business district will be lost (Mamula-Seadon et al 2012). Displacement of businesses and residents may have a significant economic impact (Christchurch City Council 2011).

Some Inner City East residents were living inside the post-earthquake cordon, since it was initially within the four avenues. Many others had to leave damaged homes to seek accommodation elsewhere. A study by Te Whare Roimata (2011) found that about half of the Inner City East housing stock (to Fitzgerald Ave only) was damaged or destroyed in the February earthquake, displacing residents elsewhere. It estimates that at least 250 single people on low incomes lost accommodation in the September and February earthquakes (Te Whare Roimata 2011).

Organisations working with older adults report more isolation in this age-group as many older adults have been displaced (Christchurch City Council 2011).

Given the damage to the central business district, competition for property and land in Inner City East has increased. Post-earthquake, the council temporarily changed zoning rules to allow mixed land use in residential areas for several years (e.g. allowing commercial use in previously residential areas), to address the shortage of business accommodation. Though this was a city-wide change, Inner City East is affected because it borders the central business district.

Methods

Community resilience is defined as the process of communities adapting positively to adversity or risk (Kobau et al 2011, National Mental Well-being Impact Assessment Collaborative 2011). This research project gathered information from affected Canterbury communities to understand what helped (and hindered) their resilience. The research does not evaluate the effectiveness of community responses. Rather, it examines and describes a selection of those responses to identify factors that build community resilience.

We held focus groups and interviews with 92 Christchurch participants. This case study is one of six:

- Lyttelton
- Shirley
- Inner City East
- marae communities
- migrant and refugee communities, and
- Christchurch Community House (as a workplace community).

The research focuses on post-earthquake recovery from February 2011 to July 2012. We carried out the fieldwork between May and July 2012, approximately 16 months after the destructive February earthquake. We wrote up the fieldwork in October and November 2012, and then sought and incorporated input from the advisory group, key contacts from the case-study communities, government agencies, and the two funding agencies – the Health Research Council of New Zealand and Canterbury Medical Research Foundation. We finalised the report in early 2013.

As the Inner City East case study is part of this larger research project, it should be read with the full report, which gives further detail on the methods, limitations, and implications of the work.

Participants

This case study drew on:

- a) a focus group with seven community leaders, and
- b) interviews with 16 individuals (mostly residents, and several community leaders).

The focus-group community leaders were all involved with Te Whare Roimata (described below) and/or the Inner City East Recovery Network, which included neighbourhood group members. However, both they and the other interviewees discussed many community responses beyond the direct activities of Te Whare Roimata (and we included residents and community leaders not involved in Te Whare Roimata).

We selected Te Whare Roimata because it is a key community organisation located in Inner City East. It has a long history of working in this community to identify and meet local needs. Focus-group participants suggested other names of people to interview, especially people who were 'ordinary' residents (such as neighbours less involved in formal community activities), other community leaders (not involved with Te Whare Roimata), and people who had been displaced from Inner City East. As well, we invited further interviewees to take part, based on suggestions from the advisory group and the researchers' own networks.

The 23 participants ranged in age from 33 to 79 years. Only a few of the focus-group participants were paid workers – most held unpaid, volunteer roles.

This report identifies the roles of two participants, since they held unique roles in the community – the former Christchurch Central MP (Brendon Burns, the local MP until November 2011), and the spokesperson for the Gap Filler initiative. They consented to being identified in this way.

Three participants were current or displaced residents from the Avon Loop neighbourhood (an area within Inner City East with its own community cottage and residents' association). Some of their comments are identified as from the Avon Loop – because the neighbourhood has a distinct character, and its own community groups.

Key organisations

Representatives and/or clients of the following organisations took part in interviews or focus groups. A very brief outline is provided for readers not familiar with these organisations.

Te Whare Roimata

Te Whare Roimata is a grassroots community-development organisation working with the Inner City East community, especially with marginalised people. It offers neighbourhood support and outreach, welfare information and advocacy, Māori community work and health programmes, and the Smith Street Community Garden.

Three of Te Whare Roimata's projects – Linwood Community Arts Centre, the Support and Outreach project, and the Labour Group – played key roles in responding to the earthquakes.

The **Arts Centre** offers lower-income people opportunities in the arts, such as inexpensive arts classes, arts information, and multicultural events. The **Support and Outreach** project provides neighbourhood support, referral to appropriate agencies, and outreach in the local community. The **Labour Group** is a group of volunteers who provide physical labour assistance in the community, such as furniture removal, house-shifting, gardening, or lawn-mowing.

Te Whare Roimata's main funders are: Partnership Health, Christchurch City Council, Christchurch City Mission, Ministry of Social Development, New Zealand Lottery Grants Board, and the Canterbury Community Trust.

Residents' Associations

The Inner City East Neighbourhood Group and the Avon Loop Residents Association are two local resident groups.

Christchurch City Mission

The Christchurch City Mission (an Anglican social service agency providing drug and alcohol recovery services, social work and mental health services) is also mentioned, as several participants were clients of the City Mission.

Findings

Effects of earthquakes on well-being

The earthquakes had dramatic effects on individual and collective well-being. Many participants reported that living with uncertainty, and the continuing aftershocks, was challenging. Feeling powerless was also common. One resident described powerlessness as a universal experience. She said:

The whole thing about natural disasters is that they're totally disempowering and just [having] ongoing quakes is disempowering, because you never know when they're going to happen, you have no control, absolutely none...And then, as everyone has experienced, having the powers that be come in and decide what will happen is also disempowering. So you get layer upon layer, and I think that those things affect resilience.

Some participants – both residents and leaders – faced barriers in accessing or accepting help from others. One, for example, had left her job after the earthquake, and said it took a while to feel ready to face applying for a benefit. Her previous workplace had been unsupportive, and she delayed applying for the benefit for almost six months because: 'I just couldn't face that for ages and ages...I spent all my savings...so it's been quite hard financially too'.

Several residents said they felt some people from outside Christchurch had been invasive of people's privacy, or insensitive to the ongoing challenges and stress. The continual noise of helicopters hovering over the central city area, to show tourists the earthquake damage, was considered invasive and stressful for these residents.

Belief that 'others are worse-off than me'

Many people said that others were 'worse-off' – or more deserving of help – than themselves. This was often a barrier to accepting help from others. For example, a Māori participant had refused emergency relief because she felt there were others in more difficult situations who should receive that help. She said her family, rather than a professional, was supporting a mokopuna (grandchild) who was struggling from the trauma of the earthquake. This was because her family felt: 'Give [the support] to somebody who needs it more than we do'. She said this view was common among Māori, and that face-to-face communication is important in encouraging people to seek and receive support.

Many people in the community, often older people, were reportedly living in damaged houses, without asking for help to fix the damage. A leader said: 'A lot of them don't ask for help. They just sort of plod on'. She gave an example of an older woman whom she felt was in need of help and support:

When you offer help, she's kind of reluctant to take it. I mean, she's grateful for it, but [she says] 'oh no, it's alright, there's always people worse-off than me' and that kind of thing.

Several leaders and residents said that after the earthquakes, there were some service-barriers to accessing help post-quake, e.g. tighter eligibility for Work and Income welfare assistance. Another example was a perception that Housing New Zealand was less accessible to tenants because of a policy change³⁶: 'They've taken off their offices so now you have to ring up'. These examples were not necessarily related to the earthquakes, but coincided with the rise in social need in the post-disaster period, and access problems affected people's well-being.

Community responses to the earthquakes

Participants spoke about the following community-based responses to the earthquakes.

Immediate – day one

Informal emergency relief

Participants emphasised that much of the emergency relief efforts were informal and driven by local individuals and neighbours. Examples included: informal door-knocking at neighbouring houses to check how people were, including checking specifically on older people; informal sharing of food and shared meals amongst neighbours; and sharing a generator with other neighbours who had lost power.

Immediate response from local community workers

On the day of the February earthquake, local community workers from Te Whare Roimata walked or biked the streets to check on people, and to offer immediate help or referral. Te Whare Roimata then began early emergency relief and door-knocking at local residents' homes, such as organisation of food parcels and vegetables from the community garden. Participants said that existing community networks quickly facilitated communication. Te Whare Roimata encouraged individual staff and other local people to offer their help, as circumstances allowed.

First few weeks and months after the earthquake

Informal practical and social support

Water was an early need in Inner City East, participants said. Some residents, who had wells, shared water with others. According to participants, the only water provided from outside the community came from Rangiora and Leeston farmers (the 'Farmy Army'), who trucked in much water to the Inner City East area.

Other examples of practical support were:

- a Tuhoe whānau (extended family), who travelled down from the Eastern North Island to door-knock, deliver food, and give money to whānau members.
- hosting neighbours when they were red-stickered by Civil Defence and were reportedly given ten minutes to leave their flats

³⁶ In February 2012, Housing New Zealand changed its policy to a national telephone-based service to provide immediate support to tenants. It still maintains a Tenancy Manager workforce which has a role of working face-to-face with tenants and applicants.

- a campervan bus parked at a street corner offering free tea and coffee.

Most participants said there had been much informal social support. One resident, who lived inside the cordon, said her immediate group of neighbours became a 'community' very quickly post-quake. Though they had not known each other before, they stayed together in a garage for about a month. This participant said they had a 'high level of resilience' in looking after themselves, such as exchanging resources with other local people to access water and gas for cooking.

Community action by Te Whare Roimata

Te Whare Roimata coordinated post-quake responses, and was underway as a central coordination point within three days of the February earthquake. Te Whare Roimata's support and outreach service, Arts Centre, and Labour Group combined to meet local residents' needs.

The Linwood Community Arts Centre became an unofficial earthquake hub, where people in need could drop-in for support and referral, and donors could drop-off emergency supplies. The Centre became a vital meeting place since the neighbourhood lost so many other venues, including Te Whare Roimata's community cottage which was yellow-stickered and in the central city red zone. The Arts Centre hosted weekly lunches, meetings, and other gatherings, and shifted its focus to the earthquake response. The Labour Group fetched water, dug toilets, and helped to shift many people. Te Whare Roimata's support and outreach arm visited people at home, provided essential information, checked on peoples' well-being, and developed neighbourhood initiatives. Examples were:

- a shopping bus, used to transport people to supermarkets outside the area, which were the only ones open.
- a community table, where community workers from Te Whare Roimata would stand weekly on Stanmore Road with a table offering soup. A community-worker participant said this initiative helped them to identify new people who were 'really struggling', and to connect people with information or services.
- about six months after the February earthquake, Te Whare Roimata organised a door-knocking exercise, where community workers and resident volunteers went in pairs to knock on every door in Inner City East. This was to offer support, referral, and information, and to get 'a picture' of what was happening in the community.

Inner City East Neighbourhood Recovery Network

In April 2011, Te Whare Roimata staff initiated a community meeting to explore issues, local needs, and local responses to the earthquake. This meeting formed the Inner City East Neighbourhood Recovery Network. Members included: people from Te Whare Roimata and Inner City East Neighbourhood Group (residents' association), as well as interested residents. The network helped to plan local response initiatives, and gave input to the council's Central City Draft Plan and Master Plan for Stanmore Road.

Regular community events and meetings

Te Whare Roimata's community arts development worker held a regular monthly event for local residents, aiming to get people together. Events included: music afternoons, 'pamper' days to enhance well-being for people under stress, women's wellness initiatives, and family and neighbourhood days. The usual community activities provided by Te Whare Roimata also provided support to earthquake-affected people, such as community art trips and a weekly 'gold coin' lunch (where anyone can join a shared lunch for only \$1-2).

In the Avon Loop neighbourhood, the residents' association held weekly community meetings for all residents for the first two months after the February earthquake. The focus was emergency assistance, where local people were asked what they needed and what they could offer. Early meetings attracted 50 people. Subsequent meetings were held monthly until December 2011.

Community communication

Local community newsletters became important communication channels for earthquake-related information, participants said. Post-quake, newsletters were adapted to focus on the earthquake response and recovery, and aimed to communicate clear information to as many people as possible.

Monthly newsletters are delivered in Inner City East and Avon Loop (e.g. the Inner City East newsletter goes to 3000 households). The Avon Loop neighbourhood also has regular email contact with residents. Alternative methods of communication were important for people who did not use the Internet, such as community notice-boards. An Avon Loop community leader visited older people, and tenants in the Housing New Zealand flats, to ensure they were invited to community meetings.

Other community support

Door-knocking support came from agencies such as Red Cross, Salvation Army, and churches. Some participants had received emergency grants from the Red Cross. Several participants attended City Mission day programmes, which are ongoing and re-started just two weeks after the February quake.

The local MP (at the time of the earthquakes) organised emergency supplies from Civil Defence (e.g. food, hand sanitiser) and delivered supplies to informal relief centres like Te Whare Roimata and churches. His electorate office was involved in this emergency provision for weeks.

Many Inner City East participants raised Gap Filler as an example of a spontaneous community response. *Gap Filler* is an urban-regeneration initiative, started in response to the September 2010 earthquake, and expanded after the February earthquake. It aims to temporarily activate vacant sites within Christchurch with creative projects. It has a strong focus on temporary spaces so that local people can experiment, and seeks to offer ordinary people a way to contribute to Christchurch's regeneration.

Gap Filler

Gap Filler began with six individuals 'who wanted to do something' to help after the September earthquake. They put their own money into several early projects. Gap Filler is now a charitable trust, funded by Christchurch City Council, Creative New Zealand and other funders.

Gap Filler projects in Inner City East include the *Book Fridge* (an informal book exchange in an old fridge) and the *Butterfly Gap* (colourful art and recycled park benches on an old boarding house site). Participants also mentioned several other Gap Filler projects located just outside Inner City East. These were: the Dance-O-Mat (an outdoor dance venue powered like a laundromat), outdoor ten-pin bowling, and outdoor cycle-powered cinema.

More recent and ongoing initiatives

As at May 2012, regular community events were continuing, such as neighbourhood days. Earthquake-related support continued at the Linwood Community Arts Centre. The Avon Loop Residents Association also continued to hold community gatherings, e.g. barbecues and working bees. Memorial events, to mark the one-year anniversary of the February earthquake, were held in Inner City East and Avon Loop.

Another initiative in the area was an artist-created memorial space at the site of the demolished Oxford Tce Baptist Church. It comprised 185 white-painted chairs to represent each of the lives lost in the February earthquake.

Life in Vacant Spaces emerged from the Gap Filler initiative. It is a brokerage service, where people with ideas for using vacant spaces are matched with the appropriate landowners of possible vacant spaces. The Christchurch City Council is supporting the initiative by providing a part-time employment role to set it up. Like Gap Filler, the project is city-wide rather than specific to Inner City East, but is relevant because of the amount of vacant space in the city centre and neighbouring areas.

While some of the above events would have occurred irrespective of the earthquake, participants said that specific earthquake support was also offered. They said the earthquakes had increased the need for regular opportunities for social contact.

Effects of community responses on well-being

Support from neighbours

Almost all participants highlighted that informal support from neighbours was vital. When asked about advice for other communities, many said to encourage people to get to know their neighbours 'because I think your neighbours are the most important people. They're the most immediate'.

It was common for participants to become closer to their neighbours through the earthquake experience. One, from the Avon Loop neighbourhood, talked about a 'small clutch' of four or five neighbours who 'kept each other going. It was very important really and that was extended around the Avon Loop community'.

Another participant gave an example where the earthquake had forced her to become friends with a neighbour who she had not got on with before. The neighbour had pushed through fallen bricks, risking injury herself to get through. They became friends through the experience.

Some participants felt that, at times, informal support from neighbours was more effective than official efforts. One said:

Where people fared well, they fared well not because of the official efforts, but because ...the neighbours came to them or because people went in, stopped and said: 'Are you okay with that big hole in your house?' - that's the sort of thing that worked.

Support from community organisations

Both community leaders and residents spoke of various community-support initiatives that helped people's self-reported well-being. Initiatives felt to enhance well-being included community meetings, memorial events, support and initiatives run by Te Whare Roimata, and support provided by churches and the local MP at the time of the earthquakes. Several residents, for example, said that anniversary events had helped them to grieve formally and were well attended.

The former MP, when asked which community initiatives he felt really made a difference, replied:

I think organisations like Te Whare Roimata who despite the loss of their premises...they relocated...and just carried on providing that support and service to the community, and they're brilliant...So they were there providing support and counselling and supplies, and basically love and support to that community, [it was] tremendously important.

He also singled out three other local NGOs: the City Mission, YWCA, and Tenants Protection Association. He noted that community workers often faced their own challenges and trauma in the earthquakes, but they just 'keep on keeping on' in supporting the local community.

Several participants reported that Te Whare Roimata's door-knocking exercises had identified people who needed support, and helped to reduce social isolation. A participant reported that one man with an anxiety condition had described the door-knockers as 'angels in disguise' since they arrived when he was at a very low point.

Support from the MP

Several mentioned that the local MP (at the time) had been a helpful support and advocate for many people, and the former MP commended his electorate office for its ability to continue to support the community, despite being in five different office buildings within a year (because of the earthquakes).

Support from churches

Many participants emphasised that church groups and leaders had played a large role in supporting people and improving well-being. Examples included: Catholic nuns who travelled from Sydney to spend time talking with people and offering support, and provision of food by the Grace Vineyard church in New Brighton. Two ministers had attended many of the community meetings in the Avon Loop, and according to one participant: 'They were really good in terms of talking to people after meetings and just reassuring people'.

Do-it-yourself responses

Community leaders and residents highlighted community-initiated innovation. They said the earthquake experience had led to more initiative locally and informally, where people just 'made things happen'. For example, a community leader said:

All over the [city] people are mobilising because there's a sharing of an issue in common...[the] amazing work that's being done [is] not facilitated by government, but by some local people just taking a little bit of initiative, a little bit of leadership and bringing people together and away they're going.

As well as being a 'very stressful time', this person felt the post-earthquake period had been 'quite a creative time in a sense', and that out of the stress and hardship people had been thinking of local responses and solutions rather than these being imposed by authorities. Another leader talked about a positive, flexible attitude where people acknowledged their losses, but chose to work constructively on something else instead. This participant felt people now had renewed energy for putting effort into community-building activities. A resident agreed that people were coming up with new ideas and actions: '[People are] being creative, and getting around the constraints, and just responding with creativity'. When asked what had helped communities to adapt, she replied:

the spontaneous things that have happened, like...Gap Filler...I mean those things have been great. Even if you don't go to them, you're aware that they're on and they're creative, they're exciting...Those sorts of things are really cool and just need to continue to be supported.

Related to this, both leaders and residents spoke about people choosing to 'break the rules'. Examples included: choosing to remain in homes when authorities had asked residents to leave, returning frequently to visit Te Whare Roimata (when the Gloucester Street building had been yellow-stickered), and returning inside condemned houses to retrieve belongings.

Door-knocking by outside organisations

Community leaders were critical of door-knocking exercises carried out by external organisations such as the Red Cross and Salvation Army. At the same time, they were mostly positive about locally-run door-knocking. The focus-group leaders all agreed that door-knocking by people from outside the community was less effective, as they lacked the necessary local knowledge. These leaders said local door-knockers were better equipped to refer people to nearby services and to advise on the availability of local amenities.

Creative support

Participants held mixed views on the perceived impact and effectiveness of creative arts initiatives. Of those who discussed Gap Filler for example, most expressed very positive views. They said it enhanced people's morale, and did a 'good job'. Several Inner City East participants said they had used and appreciated the Book Fridge and the Dance-O-Mat. One commended Gap Filler for attracting culturally diverse participants, such as at the Dance-O-Mat.

The Gap Filler representative also cited diversity and accessibility as strengths of the initiative, and reported positive feedback from people on the importance and need for Gap Filler. She felt the initiative had positive impacts on the well-being of volunteers and participants in Gap Filler activities, as well as passers-by:

Right now there's so much inaction and waiting [in Christchurch] and people feel quite disempowered about the fact that the whole city is stuffed...So getting involved with something, even though it's small, it does make a difference and for other people who aren't necessarily involved but just [to] see it, [that] makes them feel positive, it makes them feel...healed and nourished.

In contrast, a minority of other participants expressed some criticism of the Gap Filler initiative. Reported concerns were that some sites did not appear to be well used, and a perception that Gap Filler projects involved well-resourced, 'better-off' people, rather than those in hardship.

Impact on community leaders' well-being

Initiating, leading or volunteering in various community-support activities reportedly enhanced the well-being of many community leaders. As one leader explained:

It was really, really good [to go door knocking and give food from the community garden]. Just being out there [in the local community], being able to help people, it just gave me a sense of belonging.

A community leader said she had been depressed before starting to do community work post-quake, and that her involvement helped her to deal with her depression. Another reported their neighbour had said they were especially proud of helping their neighbours after the earthquake. This participant said:

I've seen it in a number of people, it's had quite a profound effect on people finding that they could connect and that they could do things [for other people]...So I'm quite convinced that, that being able to [stay in your local community] and do things...it helps profoundly.

Likewise, another community leader reflected that her involvement in a community initiative had 'had a huge effect', and her life had 'completely changed since the earthquake'. She felt her involvement had further developed her strengths and skills.

Spiritual well-being

Participants' examples of post-quake spiritual support included: seeing a counsellor who provided massage and meditation-based therapy, church attendance, personal belief in God, spending time with friends who were perceived as 'spiritual', spending time in the mountains, and spending time reflecting on art.

One participant reflected on the role of the arts in 'nourishing' people and also to 'challenge and provoke'. She felt 'creative responses to a bad situation...lift people's spirits...[and] cause people to think differently'. In her view, the act of seeing a demolished building site transformed into a creative space was 'very, very restorative and uplifting'.

Another said her personal belief in God meant that she was choosing to stay in Christchurch despite the continuing aftershocks, because she believed that God was in control of natural disasters and only God's will for her would happen. She reported that this belief enhanced her well-being.

Some noted that simply practical support from churches could help people on a spiritual level, as this comment suggests:

The Salvation Army is a lot more practical [than some churches] but they also bring an element of spirituality, even though you might not even talk about anything like that, you still feel like you're being comforted, you know, from the higher whatever.

Interestingly, the widespread loss of church buildings seemed to affect the whole community, not just those who attended church. An Avon Loop leader commented that the loss of the local Oxford Terrace Baptist Church had 'upset' people in the community 'because that was one of the things that we identified with in the area'. Another said she was not a practising Christian, but: 'for me personally, seeing all the churches going was really difficult'.

Changed priorities

Some participants reported their priorities had changed since the earthquakes. One, who had been displaced, said her priorities had changed dramatically:

I don't sweat the small stuff really, the important thing is the people you care about, things are not important...it's not important to have a loo that works...you realise how lucky you are, that's what you feel.

A few participants said the earthquake experience had shaken and challenged their spiritual beliefs. One, who had lost her home and job after the earthquakes, said: 'I've sort of lost any spirituality I had, I just haven't put any energy [into it]'. She said she used to attend church regularly and it was 'an anchor', but she had not been to church or prayed since the earthquakes. She reflected that the interview was the first time she had thought about this issue, and that it was unusual for her to not seek any spiritual guidance or support (as she had done so in previous difficult times).

Another had worked at a Christian social service agency at the time of the February quake. In her view, the agency had expected its employees to be stronger than other people because of their religious faith, but she thought this was unrealistic and unhelpful.

Factors that affected community resilience

Participants identified many factors that helped (or hindered) the Inner City East community's ability to adapt after the earthquakes. These factors are grouped into eight headings:

- community connectedness
- opportunities to get together
- community infrastructure
- external support
- official decision-making processes
- people's well-being
- survival skills
- extent of adversity.

Community connectedness

In general, participants agreed that a pre-existing sense of community and social networks helped the Inner City East community to adapt after the earthquakes. One community leader said: 'We had this wonderful network that existed prior to the quake that we quickly were tapping into, and going from there really. So I think that was really important'.

Effects of the earthquakes on connectedness

After the earthquakes, many residents and leaders said that the community was more socially cohesive, especially closer connections between neighbours. Examples included: friendliness among strangers, an increase in mutual support, street parties, and more informal neighbourhood surveillance.

Even people who were usually loners became closer to their neighbours, one resident reported. Bonds made during the earthquakes had often continued: 'It's like you've got this huge bond with people that went through the [earthquake experience] with you...I know everybody in this area now'. Many commented that the shared experience helped to develop a greater sense of community.

Further, many participants noticed a new sense of connection with others across Canterbury, and across diverse social groups, because of the shared earthquake experience. Several suggested that the experience helped to break down barriers between people, and it encouraged more acceptance of diversity. For example, one said:

The good thing is that...all the Christchurch people came together, [there] wasn't those isolated social groups of 'I'm in this strata' or 'I'm in that strata', it was a real coming together and some of that has still stuck.

On the other hand, a few residents and leaders felt that the exodus of displaced people – and the loss of housing and infrastructure – had contributed to a sense of loss and the community being 'quite sad'.

Some said the sense of community had reduced over time, because of chronic stress and social problems like binge-drinking and crime. Several believed that people were less likely to trust each other. A participant, who had been involved in door-knocking, said in some parts of Inner City East, people were 'very suspicious' and 'nervy' in the months after the earthquakes. A few participants, who were clients of the City Mission, felt that people had become more suspicious of them post-quake and had less trust. They felt social divisions had sharpened after the crisis.

Effects of displacement on Avon Loop community connectedness

Interestingly, some Avon Loop residents talked about retaining a sense of community, even though most properties had been red-zoned and many residents had already left. A community leader estimated that more than half of the Avon Loop population had left by the time of the interview, 16 months after the February earthquake.

A remaining resident said she kept in touch with people who had left, and that many went to the local pub for a weekly meal together. She believed that former residents continued to identify with the Avon Loop.

However, the social fragmentation of this neighbourhood was also evident in the interviews. A former resident commented that the exodus of neighbours had helped her decide to leave Christchurch:

My neighbours were [leaving] as well, so I wasn't going to have the community. That was the biggest thing – it was the fact of not having the neighbours. We'd been really close and they'd all gone their separate ways.

Avon Loop residents questioned how the few remaining people would rebuild as a new community, when all the red-zoned people had left.

Opportunities to get together

Informal and organised opportunities to get together were seen as helpful in adapting after the earthquakes. Community leaders said they continued to provide regular opportunities for people to meet and to interact, 'to keep people coming together, talking together'.

City-wide events – such as music concerts – were also said to be well-attended and built resilience through bringing people together. Community leaders said it had been important to hold a local memorial service in the Inner City East area in particular. One reflected that she found the local anniversary event more meaningful than a wider memorial service.

Community infrastructure

Community leaders agreed that existing community organisations helped the community to adapt. When asked what factors had helped the most, a community leader said:

The fact that there were significant social services – and particularly community workers and community facilities – in this community, that were very localised in a community-development model. I think that's critical.

Leaders noted the importance of having established organisations, and venues like community cottages, from which the local earthquake network and responses could emerge.

Other participants, not involved in local community organisations, expressed similar views. One commented that organisations like Te Whare Roimata had been acting on behalf of the community for years, and that they worked even harder in a disaster context. In response to the question of what things had helped the local community to be resilient, a resident said Te Whare Roimata did 'a good job' despite having a small budget.

Community leaders, as well as several residents, said the leadership of Te Whare Roimata's community worker was invaluable. Continuity was valued, as the same person had led the project throughout that whole time.

These participants also pointed to Te Whare Roimata's long history as a community-development project in Inner City East. It had been going for more than twenty years, and had a history of collective local problem-solving.

Communication and collaboration

Participants said the existing community newsletters became even more vital after the earthquakes. According to community leaders, the earthquakes encouraged more collaboration across community organisations – and new ways of collaborating. In many cases, community organisations had to share premises because of earthquake damage. For example, Te Whare Roimata had moved temporarily to a new space with the Linwood Community Arts Centre, which encouraged more integration of services.

Loss of community infrastructure

On the negative side, several said people missed public facilities like the library, Centennial Pool, and the art gallery, which were closed after the earthquakes, e.g. 'there's an impact on your psyche I think...the places aren't there for the same amount of interaction'. One couple, who were carers of a person with intellectual disability, said the loss of these public facilities limited his ability to be independent and he found the loss 'very difficult'.

Several leaders said the under-resourcing of community organisations, and limited capacity of workers, had constrained the community's ability to adapt. Pre-earthquake, the various community organisations in the area tended to work with tight budgets and ongoing funding pressures. The earthquakes reportedly increased and intensified the workloads and pressures on community workers.

External support

Leadership from individuals and organisations outside the community

Community leaders and residents said the local MP (at the time of the earthquakes) had been very active in his leadership and advocacy for the community, such as supporting residents with damaged houses. The former MP praised his electorate staff for their advocacy skills and persistence in working alongside people, especially those with complex problems.

A few community leaders mentioned positive leadership from local city councillors. A leader in the Avon Loop neighbourhood said there had been good support from individual city councillors, such as attending meetings and keeping in regular contact with community leaders. Local resident groups were part of the city-wide community network, CanCERN³⁷, which was highlighted by several community leaders:

I think CanCERN is very good - enabling the groups like us to link in with other groups so you can see that our problems aren't [unique], that [problems have] been duplicated all over the Eastern side of the city - so that was really useful and they also fed us information that we could then feed on to other people.

37 CanCERN is the Canterbury Communities' Earthquake Recovery Network, a network of residents associations and community group representatives from Canterbury's earthquake-affected neighbourhoods, formed after the September 2010 earthquake. It aims to encourage full community involvement in recovery processes and to work in partnership with recovery agencies.

Funding assistance

Community leaders said an earthquake funding grant from MSD (for community groups) helped them to hold regular events to bring local people together after the earthquakes. Group participants agreed that this funding had made a significant difference in being able to strengthen and extend community events. This was the case even with a relatively small amount of funding (e.g. less than \$1000 per event).

Good communication and information-sharing

Several community leaders said individual council and Canterbury Earthquake Recovery Authority (CERA) staff members had been helpful in providing information, liaison, and administrative support to communities. One also said the council's emergency phone number had worked well for reporting local problems immediately post-quake. Residents who were living inside the cordon appreciated the efforts of emergency authorities, and especially praised the urban search-and-rescue crews (USAR) and the army.

Concerns about communication

On the other hand, participants agreed there was a need for authorities to be more 'in touch' with communities and to know them better. Both leaders and residents expressed criticism about a perceived lack of transparency and communication from authorities. For example, community leaders felt that a council decision on zoning, to allow temporary mixed land use in residential areas, had been made without consultation with the local community, or assessment of the potential social impacts. They believed that the zoning change had limited the availability of low cost housing in the Inner City East area (as businesses had moved into buildings previously used for affordable accommodation).

The former MP stressed the need for good communication and information-sharing, especially the importance of leaders speaking with communities directly. He said it was common for residents to be 'told different things by different people,' and that this 'went on for months' after the February earthquake.

Lack of external support

In contrast to most participants, a few residents said they felt their community had lacked post-earthquake support from external organisations. A resident explained that the main support had been informally at the local neighbourhood level:

The first person from outside [the community] would probably have been the Salvation Army...That was it, we never saw anybody official at all. So it was all very much local here.

Those who reported a lack of official support tended to live within the central city cordon. When asked about the type of support that happened in the community, a central-city resident explained:

No one [came] – we had no portaloos, we had nothing. We were the worst off of any group anywhere – because people contend that in the east it was bad, but we're not quite in the east. We were seen as city because we were inside the red zone, and they completely forgot about people inside the red zone needing any support, so if you ask any of the neighbours around here – we had nothing.

Official decision-making processes

Almost all community leaders and residents wanted to feel involved and informed on earthquake issues, from the initial emergency response to future planning. A community leader reported that in Te Whare Roimata's door-knocking exercise, 'almost everybody' said they wanted to be involved and 'have a say'.

Taking part in planning for the city's future

According to leaders and residents in Inner City East, a key barrier to adapting well was the limited community involvement in official planning. Both leaders and residents said they felt 'powerless' in relation to government, CERA, and the council. A resident, for example, expressed this view:

We don't feel like we have any control over our own fate...you can come up with all sorts of cool ideas, and it won't really matter, someone else is going to be sitting there deciding what happens...and you know a lot of it will come down to people...wanting to make some money out of it...I guess I'm not feeling terribly optimistic at the moment. I do feel we've kind of been taken over...[by the] Government.

Share An Idea consultation

In May-June 2011, Christchurch City Council held a six-week 'Share An Idea' public engagement programme to seek community ideas for the redevelopment of Christchurch's central city. A draft Central City Plan was developed, based on this community input. The draft plan was transferred to a branch of CERA, the Christchurch Central Development Unit (CCDU). In late July 2012, the CCDU released a more detailed plan (the Christchurch Central Recovery Plan), developed from the initial council draft. This plan is a statutory document and directs the council to change its District Plan to meet the objectives of the Recovery Plan (sources: Christchurch City Council and CERA websites).

At the time of this fieldwork, the plan was with the CCDU and had not yet been released. Participants in this research expressed frustration and dissatisfaction with the process of the plan's development, as they believed the community's views would not be taken into account by CERA. After the plan's release in July 2012, there was continuing community concern about the extent to which community perspectives would be reflected in future planning. This issue was part of wider concerns about democratic processes in Canterbury.

Many community leaders and residents had been involved in the council's Share An Idea process in 2011. Of those who had been involved, most said they had appreciated being part of the Share An Idea process, but they also shared a strong sense of disappointment that the process had not been continued or followed up with action. At the time of our research fieldwork (May 2012), the draft plan was yet to be publicly released and many participants felt excluded from the process at this point. When asked what had most helped to build community resilience, a resident gave this response, reflecting many other views:

Things like that Share An Idea process were spot on, and I remember...the feeling in those events was really something. It was absolutely astonishing, it was really good...But again there has to be follow-through, otherwise it's just more empty consultation for the sake of it.

Community leaders felt there was broad agreement in their community on the recovery and future direction of the city. When asked to define community resilience, the former MP said he felt community involvement in the recovery was vital. He acknowledged it could be difficult for decision-makers and authorities to do, but:

Actually they need to turn [the traditional model] upside down, and find out what residents want and need, to find enduring solutions...The whole top-down model, I don't think works very well at the best of times, let alone [after a disaster]. It might work [immediately] post a disaster, because you do need somebody making decisions, but in the recovery phase you need to include the community. And allow them to play a role in the rebuild of their city.

People's well-being

Most leaders and residents stressed that many individuals in the community continued to face significant challenges at the time of the fieldwork. For example, one said that some people have 'thin, thin skin' and 'it doesn't take much to push people over the edge'. In their view, the personal resilience of many individuals was undermined by stress, fatigue, trauma, grief, and burnout, and this affected community resilience.

Many residents and community leaders had themselves lost their home, job, and/or relationship following the earthquakes. Participants reported that these personal difficulties impacted on people's ability to contribute to collective efforts, e.g., one participant said:

It's not that people don't want to be involved [in the community], it's [that] they're getting on with their daily lives as well, so having to find another flat, going to open homes, doing all that other stuff that you have to do is getting in the way of them being community-minded.

Well-being of community leaders

A few community leaders reported negative impacts on well-being, especially related to workloads. The local MP at the time, for example, reflected that he kept 'going and going for a long time,' working a 'big, punishing' workload because of the extent of post-quake work. He said he did not realise the 'psychic toll it was taking' until after the election (November 2011). At the time of the December 2011 aftershock, he was no longer the local MP as he had lost his seat, however he still felt a sense of responsibility for his previous electorate.

Similarly, a community leader said the experience of initiating and leading a new community initiative had been 'really exhilarating but also overwhelming [and] daunting'. She said it was easy to 'get in way over my head...I just can't possibly keep my head above water sometimes'.

Socioeconomic hardship

Pre-existing social and economic disadvantage in Inner City East also affected people's resilience and sense of powerlessness. A community leader reported that many local people were living in substandard housing conditions. The former MP said because of its socioeconomic profile, Inner City East was 'a community that only copes at the best of times', but he felt it was 'able to cope because of agencies like Te Whare Roimata and the City Mission and the range of wraparound services that are there to try and help people through'. He said that post-earthquake:

[The community] will carry on coping, but they'll probably be colder, and lonelier, and more impoverished and facing more anguish and stress and health issues, because of 1) their locations are often worse, and 2) everybody's stretched.

Survival skills

At the same time, participants reported that the existing survival skills of disadvantaged people helped the community to adapt. One resident said she learned from the survival skills already in her neighbourhood:

This street is peopled by a lot of people who are [in] boarding houses, there's a history in Christchurch of boarding houses with middle-aged elderly men who are beneficiaries, and have had mental health problems or just ended up on the benefit for some reason or other – and they're very,

very good at survival, so [when the earthquake happened] I just thought: 'I'm going to stick with them because they know how to survive'.

This resident reflected that older people in her neighbourhood had shown better survival skills than younger people, who seemed more dependent on technology and computers.

Several talked about the importance of humour and/or optimism in helping communities to cope. They said it was important to 'think positive' and to 'have laughs and fun' despite the hardship.

One resident said that people's basic goodness came to the fore in the crisis, whereby they were more giving and helpful than usual: 'People are very good to each other'.

Some participants reported higher alcohol use as a coping strategy, especially in the early days and weeks after the February earthquake, but also ongoing. Sometimes alcohol use was seen as a positive social activity, in the context of bonding with neighbours, but others were aware of increases in binge-drinking or other problems. A few participants felt that there had been an increase in crime, such as graffiti, vandalism, and domestic abuse.

Sense of place

Many participants spoke of Christchurch as 'home', and said a sense of place helped them to cope and to choose to remain in Christchurch in very difficult circumstances. A typical comment was: 'I've been in Christchurch for so long...even though it's not great, and there's times I want to leave, it's still home'.

Diversity of needs and skills

Several residents said the community's pre-existing diversity helped it to adapt, particularly diversity of ages and living situations. This is because neighbours had complementary skills and differing needs. Some suggested that people were very accepting of diversity, and that this was part of the community's identity. A community leader said of Inner City East:

It's a very eclectic community...people from all sorts of socioeconomic [backgrounds] I suppose...they all live here because they want to live here, and they like that [diversity]...I find that quite special...I mean they're accepting of the fact that there's some, you know, there's some pretty rough characters walking around all the time.

Extent of adversity

The degree of physical damage from the earthquake affected community capacity to adapt and build resilience. For example, the Avon Loop community's land was mostly red-zoned, which meant a large proportion of residents had left or were required to move within the year.

Several Inner City East residents commented on the effects of changes to the physical environment and the loss of physical infrastructure. Of the demolition of buildings in the central city, a resident said:

People don't realise it, but for me, I think the worst thing is that you go down the street [in the city centre] and even though you've been down there a hundred times, you have to sit and [try to remember] what was there [because so much has been destroyed or demolished]. I find that quite disturbing really.

Many participants said the loss of businesses and services such as local shops, cafes, and restaurants had been difficult. Community leaders who 'door-knocked' (post-quake and several months afterwards) said a common concern was the lack of shops. As many residents in Inner City East did not have access to a

car, the loss of shops – especially dairies and fish-and-chip shops – was more difficult to cope with. A lack of local shops was reportedly an ongoing problem.

Ongoing housing shortage

Many leaders and residents felt concerned about the loss of affordable housing in Inner City East. They said that many locals were displaced from their rental homes, council flats, bedsits, or boarding houses in the February quake. Some people apparently wanted to return to the area, but could not because of a housing shortage and high rental prices.

Participants said some rental prices had doubled. Some were personally affected, and were still struggling to find affordable accommodation.

According to leaders and residents, homelessness was on the rise. Clients of the City Mission reported that many people were sleeping at red-stickered properties, in cars, and at the beach. Another resident said:

There's people on this very road...they're sleeping in houses on the porches with their sleeping bags night after night. I can take you down any night and show you half-a-dozen people along this road that are sleeping in cars or sleeping rough, and it's just disgusting. There's nothing helping these people at all.

Some leaders and residents felt the authorities had overlooked or under-estimated housing needs. One said that displaced people were often more vulnerable, such as older people or those with mental health issues, and they tended not to have 'the same resilience to cope with changes'. These leaders said some landlords were renting out unrepaired houses 'in shocking condition'.

Summary

Participants suggested that much of the immediate post-earthquake support was provided informally by neighbours – and this support helped individuals' well-being. Various organised responses also emerged, mostly from existing local organisations, but also from outside the community. Participants reported that community organisations became hubs for earthquake support and mobilised quickly because of their pre-existing community networks.

Community responses contributed to the self-reported well-being of both recipients and organisers. Giving to others, by initiating, leading or volunteering in various community-support activities, apparently enhanced the well-being of many community leaders and volunteers. Participants agreed on the value of community-initiated innovation – and spontaneous, creative responses where 'ordinary' people just made things happen.

There was strong agreement that the existing local community infrastructure had been critical in helping the community to cope and adapt post-quake. Participants reported that community workers were immersed in the local community and the area had a history of collective problem-solving. A community-development approach was highlighted as especially important. According to participants, community spaces – like the community cottages and the Arts Centre – were also key community resources that became vital in the earthquake response. They valued formal opportunities to meet together regularly as a community via local events and activities.

However, participants also said there had been limited community involvement in planning for the future city and a continuing sense of collective powerlessness. Participants believed the adverse effects of losing public spaces and affordable housing had undermined the ability to adapt as a community.

They reported that many individuals in the community remained under significant stress, affecting the wider community's resilience. As well, social problems had apparently worsened after the earthquakes.

Overall, Inner City East participants emphasised that significant ongoing challenges remained for the community, especially the effects of living with uncertainty and housing insecurity. Yet many also reported a sense of pride in the community's unique character and diversity, and the existing community connections.

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Appendix 4: Marae Communities Case Study Report

Mihi

He mihi tuatahi ki te Wairua Tapu. Nāna te tīmatanga me te whakamutunga o ngā mea katoa. He mihi hoki tēnei ki ngā mate. Haere, haere, haere atu rā ki te wairua maha o te Atua me ngā Tīpuna kua wehe atu ki te pō. Te hunga ora ki te hunga ora. Te hunga mate ki te hunga mate.

Ngā mihi nui ki ngā mana whenua o Ngāi Tahu, Kāti Māmoe me Waitaha hōkī. Ki ngā tāua, pōua, whānau, rangatira e manaaki ana te rōpū mahi rangahau nei. No reira, tēnā koutou katoa.

Tēnā koutou katoa ngā tāngata e noho ana kei Ōtautahi. Tēnā koutou ngā whānau o Ngāi Tūāhuriri, Ngāti Irakehu, Ngāti Wheke me ngā hapū o Ngāi Tahu. Tēnā koutou Ngā Hau e Whā.

He mihi aroha tenei ki te mamae o te whenua me ngā whānau, ngā hapū, ngā iwi, ngā tāngata katoa e noho ana ki Ōtautahi.

Mā te Atua koutou e manaaki e tiaki i ngā wa katoa.

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Community profile

This case study focuses on several marae communities in Canterbury. A *marae* is a Māori meeting house or cultural community centre.

The marae is a place where Māori culture is celebrated, Te Reo Māori (language) is spoken, and iwi (tribal) obligations are met. It hosts important ceremonies such as welcoming visitors or farewelling the dead in *tangihanga* (ceremonies to honour, grieve, and mourn the dead). The marae is a *wāhi tapu*, a sacred place which carries deep cultural and spiritual significance. Both urban and rural marae are key Māori cultural settings.

Marae communities

Marae communities includes the leaders and workers (paid and unpaid) involved with marae, as well as the community of whānau and individuals that have whakapapa/kinship, tribal or other links with the marae. At times, participants in this case study also referred to the wider Māori community.

Three marae communities are the focus: Rēhua Marae, Rāpaki Marae, and Wairewa Marae. As a few participants were also involved with Tuahiwi Marae, some comments about Tuahiwi are included.

Rēhua Marae is located in the central Christchurch suburb of St Albans. As it is a contemporary urban marae, it does not have historical whakapapa connections or oversight by a particular rūnanga (although the site/land is historically significant). Some kaumātua live at the marae.

In contrast, the other three marae are rural, and connected to rūnanga. Rāpaki Marae is in the small Māori settlement of Rāpaki, close to Lyttelton. Some whānau live at the marae itself. Wairewa Marae is situated at Little River near Akaroa. Tuahiwi Marae is located close to the small town of Kaiapoi, approximately 30 kilometres outside of Christchurch.

These variations help to explain differences in how the marae were used after the earthquakes. For example, Rēhua Marae became a hub for many services and for the Ngāi Tahu earthquake response largely because of its urban marae status and central location. In contrast, Māori living in Christchurch with links to Tuahiwi Marae tended to return home to the marae following the earthquakes.

Ngāi Tahu

Ngāi Tahu, the local iwi (tribe), is the largest iwi in the South Island. The iwi authority, Te Rūnanga o Ngāi Tahu, is the governing body that oversees the iwi's activities. Te Rūnanga o Ngāi Tahu constitutes representatives from 18 rūnanga that are hapū-based and geographically-spread across Te Rohe o Ngāi Tahu (the Ngāi Tahu region), generally based around traditional Māori settlements. A rūnanga is a tribal council, assembly or board.

(Note: Definitions of Māori terms are based on advice and Potangaroa and Kipa 2012).

Impact of the earthquakes

The areas surrounding Rēhua, Tuahiwi, and Rāpaki Marae were all impacted by the earthquakes, but there was relatively minor damage at Rēhua and Tuahiwi Marae. The Rāpaki settlement was severely hit, as it was close to the February earthquake's epicentre. Buildings and homes, including the main meeting house and kaumātua accommodation, were damaged by rock fall. Wairewa Marae and its surrounding community had less physical damage than elsewhere in Canterbury. However, as one of the local (Papatipu) marae, Wairewa provided support to other marae and the local Little River community.

Methods

Community resilience is defined as the process of communities adapting positively to adversity or risk (Kobau et al 2011, National Mental Well-being Impact Assessment Collaborative 2011). This research project gathered information from affected Canterbury communities to understand what helped (and hindered) their resilience. The research does not evaluate the effectiveness of community responses. Rather, it examines and describes a selection of those responses to identify factors that build community resilience.

We held focus groups and interviews with 92 Christchurch participants. This case study is one of six:

- Lyttelton
- Shirley
- Inner City East
- marae communities
- migrant and refugee communities, and
- Christchurch Community House (as a workplace community).

The research focuses on post-earthquake recovery from February 2011 to July 2012. We carried out the fieldwork between May and July 2012, approximately 16 months after the destructive February earthquake. We wrote up the fieldwork in October and November 2012, and then sought and incorporated input from the advisory group, key contacts from the case-study communities,

government agencies, and the two funding agencies – the Health Research Council of New Zealand and Canterbury Medical Research Foundation. We finalised the report in early 2013.

As the marae communities case study is part of this larger research project, it should be read with the full report, which gives further detail on the methods, limitations, and implications of the work.

Participants

This case study is based on five focus groups with 19 marae leaders and whānau members. Participants were aged 24-72 years and all but one identified as Māori (mostly Ngāi Tahu). Leaders included kaumātua (elders and leaders) and taua/poua (grandparents), Māori (Ratana) church ministers, marae board members, managers, and volunteer workers. Several lived at Rāpaki and Rēhua Marae in kaumātua accommodation. ‘Whānau members’ were residents of Kaiapoi and Avondale, two areas severely affected by the earthquakes. One of the whānau has whakapapa links to Ngāi Tūāhuriri from Tuahiwi Marae. Whānau members’ were generally less closely involved with marae in the earthquake response, but still had some contact with various marae.

Research process

The Māori advisor discussed the research with Ngāi Tahu leaders before our fieldwork to ensure agreement about the research process. Christchurch-based advisors worked with the Māori research advisor to recruit suitable participants. A Ngāi Tahu kaumātua oversaw the focus groups, and all except one were co-facilitated by two Māori researchers – Keri Lawson-Te Aho (Ngāi Tahu, Ngāti Kahungunu) and Adrian Te Patu (Te Atihaunui a Pāpārangī, Ngāti Ruanui, Ngāti Apa, Ngā Rauru and Rangitāne ki Wairarapa). The exception was because of illness, and that group was co-facilitated by a non-Māori researcher and the Ngāi Tahu kaumātua.

This research focuses on Ngāi Tahu rather than other tribes or the wider Māori community. Ngāi Tahu holds mana whenua status/tribal authority in the area. The Papatipu Rūnanga (local tribal councils) involved were Te Ngāi Tūāhuriri in Christchurch, Ngāti Wheke in Rāpaki, and Wairewa in Little River (Ngāti Irakehu – the primary hapū of the Banks Peninsula).

Other important Māori organisations could have been included, which may have held differing views, such as Te Rūnanga o Nga Maata Waka (the Urban Māori Authority in Christchurch) and Nga Hau e Wha National Marae.

Findings

Effects of earthquakes on well-being

The earthquakes had dramatic effects on individual and collective well-being. Many participants highlighted the adverse effects of living with ongoing aftershocks and uncertainty. Grief and trauma were common themes, e.g. a community leader, who had moved temporarily from Christchurch, spoke about her grief in leaving Christchurch and her whānau behind. Other participants commented on the grief of losing particular places such as the central business district and an old department store in Kaiapoi.

Older people (kaumātua) and children were thought to have been hit especially hard by the earthquake experience, e.g. some children continued to have strong emotional reactions to aftershocks.

A few participants reported health concerns had worsened since the earthquakes, e.g. physical health problems and anxiety. A community leader was concerned about the mental health of people in Canterbury more generally, especially heading into the winter. She felt that ‘people were resilient for the last year, but we’ve run out of that’, and believed the coming year would be the more difficult period.

Personal story:

One participant reported that she was severely traumatised by the February earthquake. She left her marae and Christchurch, and it took her six months, and a direct request from her mokopuna (grandchildren), to come home again. She recounted how she has since been diagnosed with diabetes, and has ongoing anxiety and health issues that were not there before the earthquakes. In recalling the day of the February quake, she was visibly shaken and it was clear from what she was saying that she still feels traumatised, but has come home to be with her mokopuna.

Community responses to the earthquakes

Participants spoke about the following community-based responses to the earthquakes.

Early days and weeks after the February earthquake

Ngāi Tahu earthquake response

Participants said that iwi, hapū, and whānau processes quickly mobilised in response to the earthquakes, led by Te Rūnanga o Ngāi Tahu. As part of Ngāi Tahu's tribal networks and infrastructure, the various marae within the Ngāi Tahu tribal boundaries were central in the iwi's collective response.

The Māori Recovery Network was a Ngāi Tahu-led collaboration between iwi and Māori organisations, locally and nationwide, to support the people of Christchurch after the February earthquake, especially those in the worst-affected Eastern suburbs (Families Commission 2012). The network emerged from Rēhua Marae.

This signalled that Ngāi Tahu's response was a ‘whole of iwi’ response, not just Canterbury-based. This meant marae around the Ngāi Tahu rohe (area) were opened to host travelling whānau and people coming to the South Island to be near to quake-affected whānau.

A Ngāi Tahu Earthquake Recovery Working Group (Te Awheawhe Rū Whenua) was also established to plan the iwi's immediate and longer-term response and recovery. The earthquake recovery group works with affected rūnanga and experts to identify community needs, and has developed a strategic plan to meet these needs.

After the September and February earthquakes, Te Rūnanga o Ngāi Tahu set up a fund to assist affected whānau. It also set aside \$1.1 million to assist people affected by the earthquakes (Families Commission 2012).

Working with officials

In the early response to February's earthquake, the rūnanga linked the Māori Recovery Network into the Civil Defence and Government Response and Recovery programme (Families Commission 2012). Ngāi Tahu has a Treaty relationship with Te Puni Kōkiri (TPK), the Ministry of Māori Development, at both local and national levels.

Participants reported that TPK's local manager visited Rēhua Marae straight after the earthquake to identify needs. He then communicated these needs to the TPK head office in Wellington, who mobilised

a team of staff to be based at Rēhua to support Ngāi Tahu's response to Māori. The local manager also asked for a truck of supplies and water to be sent from the Wellington head office of TPK.

Marae-based hospitality and support

Participants reported that early on, the marae network became emergency response centres, and various marae hosted visitors and residents affected by the earthquakes. Ngāi Tahu activated marae committees who organised staff to cater and care for whānau and visitors (e.g. non-Ngāi Tahu and displaced families from communities) who came to the marae for shelter, kai, and other needs. Other marae within the Ngāi Tahu tribal boundaries, and across New Zealand, opened up to house people who had been displaced from Canterbury.

Emergency response centres at marae

Rēhua Marae became a central hub for the Māori response, with many services based there including fire, police, ambulance, social workers, and Māori support workers. As Rēhua had power, water, a central location, and relatively little damage, Ngāi Tahu and Te Puni Kōkiri (central government Māori agency) chose to coordinate iwi and Māori efforts out of Rēhua. An initial planning meeting of marae and community leaders was held within 12 hours of the earthquake.

Rēhua Marae hosted high numbers of visitors for at least six weeks after the February earthquake. Various other agencies based their response efforts at Rēhua Marae post-quake, such as Te Puni Kōkiri and wānanga (Māori tertiary education provider).

Ngāi Tahu organised professional Māori mental health support (e.g. Māori mental health workers, social workers, nurse, and doctor) at the marae so that Māori with mental health issues could access their services. The marae was also a venue for food deliveries from diverse organisations and individuals (e.g. Red Cross delivery of food, donations from school children around the country, Ngāi Tahu food supplies etc).

Tuahiwi Marae, near Kaiapoi, was set up as an official Civil Defence headquarters (with Civil Defence staff based there). In contrast to Tuahiwi Marae, Rēhua Marae was not an official Civil Defence base – instead it was a 'drop-in and distribution centre'.

Distribution of emergency supplies

Through its marae network, Ngāi Tahu arranged the distribution of food, water, and other supplies to communities, especially the hard-hit Eastern suburbs. Food was donated from a wide range of sources, e.g. wānanga, iwi, community groups, and whānau. Food donations were provided universally for anyone in need (not only to Māori).

Informal support

Informal whānau support was highlighted as an immediate and continuing part of the response. Many participants, unsurprisingly, said they prioritised supporting their whānau members. Participants also spoke of support between neighbours, e.g. a whānau with a new BBQ had barbecued all their remaining food to share with others in the neighbourhood.

Māori wardens

Wātene Māori (Māori wardens) are volunteer workers who advise and have minor disciplinary powers in Māori communities. They are visible at community events, providing security, traffic control, crowd control, first aid, and confidence for the public. The Māori wardens form a national organisation which

functions under the New Zealand Māori Council. Te Puni Kōkiri supports the wardens with training and development opportunities.

Participants said that Māori wardens played a key role after the earthquakes, by door-knocking in high-needs communities and providing help at marae.

Volunteers

Participants said a wide range of volunteers assisted with practical tasks, e.g. digging silt from liquefaction and providing water. Volunteers included the Student Volunteer Army, Farmy Army, and Crusaders rugby team. One whānau participant, living in a severely affected neighbourhood, reported that ‘heaps of randoms’ (strangers) came to help or to drop-off food.

Recent and ongoing initiatives

Kaitoko support initiative

Kaiapoi participants emphasised the Kaitoko support-worker initiative, which provides Māori support workers to visit whānau in their homes and communities. The workers meet with earthquake-affected, vulnerable whānau, assess their ongoing needs, link them to appropriate services, and provide support.

Funded by Te Puni Kōkiri (TPK), the initiative is provided by He Oranga Pounamu (a Ngāi Tahu-mandated health and social service organisation) and Ngā Maata Waka (the Urban Māori Authority in Christchurch). A TPK-funded whānau support scheme was in place before the earthquakes, but was expanded after the September and February earthquakes. The need for expansion emerged from the work of the Māori wardens in the early days after the quake. TPK therefore funded additional Kaitoko support worker positions in 2011 and 2012.

Support to high needs areas

Participants said the local branch of the Māori Women’s Welfare League had a joint venture with the Mayoral Taskforce to support families in the Eastern suburbs. They were active in visiting people six-to-eight weeks after the February earthquake.

Support for men

Participants in Kaiapoi highlighted the pre-existing Men's Shed initiative (support for males through woodwork and metalwork projects), reporting that many local men had used the Kaiapoi Men's Shed for informal support.

Effects of community responses on well-being

In this case study, community leaders and whānau members agreed that Māori-specific earthquake support had enhanced the well-being of Māori. Collective cultural processes, such as manaakitanga (e.g. caring for visitors on marae), helped whānau to unite and reduced social isolation.

Marae-based support

The marae was highlighted as supporting people’s well-being. The Rāpaki group said Māori values drove a commitment to care for the well-being of those who came into Ngāi Tahu communities from other iwi and hapū (sub-tribes), as well as Pākehā (non-Māori). These participants reported that cultural differences dissolved in the trauma of the earthquakes, and people’s humanity was valued above any tribal, ethnic or cultural differences. A participant said that everyone was seen as ‘people just trying to help each other’.

Participants said that, importantly, marae provided hospitality and support to overseas people from other cultures. For example, Tuahiwi Marae hosted a Chinese family, who had lost a family member in the earthquake. The family reportedly felt 'very, very warmly welcomed when they got to the marae'. A kaumātua participant said: 'For me it's the marae [that's important] because...we're surrounded by our tipuna'.

This participant believed the marae setting had helped grieving families from overseas to cry and to freely express their grief. He attributed this to the marae's spiritual and cultural rituals. He said: 'The place allowed them the time, the moment...everyone's there and everyone's allowed to [express emotion]'.

As well, participants said that opportunities to kōrero (talk), provided by marae, contributed to people's well-being. Interestingly, many community-leader participants, who had provided support on marae, spoke about its positive impact on their own well-being. For example, several Rēhua marae leaders reflected on the special time of the post-earthquake period:

When I think back now, even though it was difficult, it was really a beautiful time too eh, that we were able to just be like whānau and manaaki all those people.

Another participant, involved at Tuahiwi Marae, said it was 'a real privilege' to be part of hosting families who had lost young people and to be involved with people from many different cultures. He said of the experience: 'For me it was just electrifying'.

Informal social support

Many participants talked about new or strengthened connections with neighbours since the earthquakes. One whānau member spoke about riding her bicycle in her neighbourhood in the early weeks after the February earthquake, along with other young people. She said that social support was important in helping well-being at the time.

Spirituality

Many participants said that Māori spiritual practices, e.g. karakia, enhanced well-being.

Several also said they believed that Māori spiritual practices had also helped non-Māori. For example, one participant had been involved in a blessing ceremony for a building where people had died. He reported that non-Māori managers who attended the ceremony had said they felt safer and calmer afterwards. A Māori church minister reported that, since the earthquakes, more Māori had contacted him for spiritual support.

Several community leaders and whānau members talked about having new priorities since the earthquakes. For example, several agreed the experience reminded them to value people over material possessions. One said: 'I think people are more important than things...now'. Another felt she had become more patient and tolerant of other people, and less likely to react in a negative way.

Personal story:

A kaumātua spoke about being 'really touched' when he took a blessing ceremony at a central city building. A woman had died in the building after the February earthquake, and he was leading a Māori ceremony to bless and cleanse the building, and to pay respects to the woman who died and her family and friends. He spoke with emotion about the effect the experience had on him as a leader, as well as on the non-Māori work colleagues that were present. He said:

...One of the things that really touched me is when I was in The Square blessing the ___ building...One of the things that [the work colleagues] were amazed [by] was when we'd actually finished the blessing, when I did the closure and I walked up to [the earthquake victim's] father..., shook his hand and hong'i'd him and embraced him and I went to the son and the daughter and to the sister and the brother of the deceased, and some of the [work employees] that were there had never seen it like that. The aroha or the spiritual stuff that was going on in that particular moment.

Factors that affected community resilience

Participants identified many factors that helped (or hindered) marae communities' ability to adapt after the earthquakes. These factors are grouped into eight headings:

- tribal infrastructure
- marae capacity and capability
- Māori cultural practices and values
- community connectedness
- external support
- people's well-being
- survival skills
- extent of adversity.

Tribal infrastructure

Ngāi Tahu is a large, well-organised iwi, with an identifiable infrastructure enabling the iwi to quickly mobilise. In all focus groups, participants agreed that Ngāi Tahu showed excellent leadership, and coordinated the earthquake response efficiently and effectively. As one whānau member said: 'I'm proud of what my tribe did. Ngāi Tahu did a really, really good job'.

According to participants, Ngāi Tahu worked alongside government and other agencies to support their work in disaster relief in the immediate period after the September and February earthquakes. Straight after the February earthquake, Ngāi Tahu formed a partnership with the migrant and refugee communities in Canterbury. This inter-agency group was based at Rēhua Marae for many months, involving a wide range of migrant and refugee community groups. A Rēhua community leader said: 'It was a great experience having the migrant [and refugee] organisation with us for that amount of time'.

Several participants also highlighted the role of the Ngāi Tahu trauma response group in providing leadership and supporting affected whānau.

Marae capacity and capability

As noted, participants emphasised the key role of marae. Rēhua Marae was viewed as the 'headquarters' for the Māori earthquake response. Many also stressed that marae were opened up to the whole community, not just Māori. One Rēhua community leader said:

[We] went around the [neighbourhood and] told them all to come [to the marae] – it wasn't just about Māori, the overarching thing was to take care of our people – but it also included the whole of the community.

Leadership

Participants agreed that marae leadership was important. The rapid response at Rēhua Marae was reportedly facilitated by leaders with the autonomy to act quickly. One Rēhua leader said: 'We don't have to go through any [bureaucratic]...layers, we just did it as it happened'.

A clear chain of command was in place, based on whakapapa, seniority, and mana. Rēhua community leaders said they retained their 'mana and rangatiratanga' (authority and self-determination) through the marae's classification as a 'drop-in and distribution centre', rather than an official Civil Defence post.

Several leaders said it was important to have consistent leadership and personnel on marae. Coordination and communication between the kaumātua, rangatira, and the staff of marae (e.g. manager, administrators) was seen as vital. The various kaumātua at Rēhua Marae met regularly (e.g. three times a day) in the early days and weeks after the February earthquake.

Existing skills

Participants reported that the marae's usual hospitality role meant that marae were used to hosting large groups, and had the skills to operate well in an emergency context. For example, a community leader reflected:

The thing about Māori is that we know how to work with a large number of people, and I really think that the rugby rooms, the Civil Defence, could have learned a hell of a lot from that, instead of having so many people running around like headless chooks – to me it was very well-organised [at Tuahiwi Marae].

Marae protocols

Community leaders stressed the importance of marae protocols. Several leaders, in the Rēhua focus group, said:

P1: People don't just descend.

P2: They let you know they're coming, they come in organised groups, so there's that kawa, there's that structure to how you engage so that it is an organised and flowing process. You can't just turn up.

P3: And everyone understands it.

They also emphasised that the marae was a safe environment: 'There was never any change in the *kawa* and the *tikanga*, and that kept everyone safe'. *Kawa* refers to the protocol or etiquette that applies on the marae. It is defined and determined by *Tikanga Māori* or ethical practices (Mead 2003).

Māori cultural practices and values

Participants often discussed the importance of cultural practices and values. They emphasised the core Ngāi Tahu/Māori value of **manaakitanga** (caring), which obliged Ngāi Tahu to care for any and all people living within the Ngāi Tahu tribal area, regardless of ethnicity or tribal differences.

Participants gave various examples of how manaakitanga had been applied post-earthquake, e.g. in the Ngāi Tahu community of Rāpaki, where overseas tourists were hosted and cared for on the marae, while arrangements were made for them to return to their home countries. The iwi's choice to support the people of Christchurch, regardless of race, culture, or ethnic identification, is also an example of **kotahitanga**.

Marae leaders and whānau members emphasised the value of **whanaungatanga**, a sense of family connection developing from kinship rights and obligations. It can also extend to other close reciprocal relationships. All participants agreed that whānau relationships were prioritised in the earthquake response, immediately (such as caring for whānau in the early days post-quake) as well as ongoing. For example, a Rāpaki community leader had moved to stay with her whānau in the North Island after the earthquake, but later returned to her home in Rāpaki because of close whānau ties with her mokopuna (grandchildren) living there.

Many participants spoke about living together as whānau after the earthquakes, e.g. one whānau group continued to live as a household of eight people at the time of the focus group (16 months after the earthquake), because of displacement. One said that family was ‘the biggest thing I think’.

When the Avondale whānau group was asked what had helped them to be strong as a whānau post-earthquake, they said it was because of ‘the way we’ve been brought up’ and the ‘cultural strength’ from Māori culture. One referred to calling on the strengths of tipuna (ancestors) and the whakapapa (ancestry) and local history of the area helped his commitment to remain in the area. He said: ‘My tipuna didn’t leave so why should I leave, eh. They survived’.

A marae leader reported that the earthquake experience had strengthened whānaungatanga:

It revitalised us and reminded us of family values and sharing and caring about each other. So I think that, that’s happened right throughout from what I’ve seen anyway right throughout Otautahi (Christchurch) and all the other areas, we’ve had to learn to work together as a whānau again...I’ve seen a lot of families [who have] got stronger together.

Many participants spoke about **karakia** (prayer) as an important Māori practice. In particular, they highlighted daily prayers and the lifting of tapu (e.g. the blessing and spiritual cleansing of sacred sites where people died such as the CTV building site). Māori ministry reportedly became an important part of the response to the earthquakes.

Marae community leaders also referred to the importance of **kōrero** (talk), especially face-to-face communication (*kanohi ki te kanohi*). This included organised opportunities for therapeutic talk (e.g. professional support at marae), as well as incidental opportunities for social contact.

Māori-specific support

Awhina (Māori-specific support) was valued by participants. Marae leaders and whānau members universally agreed that *wātene Māori* (Māori wardens) had done excellent work. A community leader said:

I had a lot to do with the wātene Māori, the wardens. They did a magnificent job, absolutely magnificent. They took around the spare water, the spare kai, they asked whether people needed Māori mental health people, whatever...But yeah, they did a magnificent job, Māori wātene, alongside our police force, alongside everyone else.

The Māori wardens are often older members of whānau, which is appropriate in working with older Māori in the community.

Participants in the Kaiapoi focus group said the Kaitoko support worker initiative (and other whānau support workers) had helped the Kaiapoi community to adapt after the earthquakes. One participant, who was a whānau support worker, believed whānau support was best done in people’s homes, rather than expecting whānau to seek help at a centre.

She had been based at the local Recovery Assistance Centre post-quake (to support whānau) and said: 'But it was interesting eh, Māori wouldn't come to me...they would see me and would not come to me, because they're whakamā (shy or ashamed) about [seeking help]'. She said: 'It was much better out in the community just working and going to people's houses...it worked out better like that'.

Community connectedness

Many participants talked about wider community connectedness. Participants saw this as helping marae communities to adapt post-disaster, e.g. the close-knit nature of the small Rāpaki community and a history of agencies working together in the Kaiapoi community.

Whakapapa (kinship and history) underpins a sense of connection for these communities, and is the cornerstone of post-earthquake support. Both marae community leaders and whānau members reported stronger bonds and greater community connectedness after the earthquakes. Rēhua leaders, for example, reported closer links with the St Albans community.

Communication was seen as important. Several participants mentioned the key role of texting people to check on them after the earthquakes.

External support

Most participants said that support from external agencies had helped marae communities to adapt after the earthquakes. Many marae leaders highlighted the positive role of Te Puni Kōkiri in assisting the Māori response and 'working alongside' Ngāi Tahu.

Almost all participants praised the support from various tribes from around New Zealand, who travelled to Christchurch and worked with Ngāi Tahu on the response. Examples of support included: provision of food in the hard-hit Eastern suburbs and sending doctors and nurses from the North Island. One marae leader noted that the external tribes filled a vital role as 'back-up' to the key Māori leaders in Christchurch, to help when leaders became overloaded or exhausted.

Many spoke of interagency hubs as positive, such as the Civil Defence headquarters in Kaiapoi and having the Kaitoko support worker offices (for whānau support) located in the council building. The Kaiapoi whānau members said the co-location of such services had facilitated communication. These participants also praised individual local politicians and said the Waimakariri District Council had been 'very good' in leading a rapid earthquake response and informing the community: 'There were always community meetings about what was happening'.

As well, several community leaders praised the Māori liaison officers in the Police.

Barriers to resilience

However, some participants questioned whether marae had been resourced adequately, or officially recognised, for their hosting role after the earthquakes. Some marae leaders felt that the financial resourcing of marae (by emergency authorities/Civil Defence in the emergency response phase) had not recognised the costs of opening up the marae to local communities. A whānau participant said:

And when [marae leaders] were asking for kai to help out those families that were coming from town and through here, [the authorities] weren't very receptive of...I went out there [to the marae], I know that there were hardships out there [for marae] in trying to feed [these] families, and after February especially.

Some participants also felt that marae had not been recognised adequately for their key role in hosting and supporting affected communities. For example, the above participant said of one marae: 'I don't believe [the marae has] been given the credit for [what they did after] that first earthquake'.

Rēhua leaders said the transition from 'emergency response to business-as-usual' was challenging for the marae. They said that when the official emergency period was over, people needing support continued to seek help at the marae, but the official deliveries of food had stopped. These leaders said it was not appropriate to turn people away, so the marae paid for extra food for a while, but could not continue to meet these needs:

P1: It's not how our marae operates. You don't go shutting doors and turning people away. But also, if we don't have the resources, we kind of have to [turn people away].

P2:..We can't continue with that level of manaakitanga when there's no resourcing.

Marae leaders at Rēhua also mentioned a sudden loss of helpers during this transition time, as many were workers who had to return to their usual employment once the emergency response period was over.

Though the leaders at Rēhua Marae appreciated the official support from Civil Defence and other agencies, they felt there had been some tensions between the 'cultures' of the marae and the civil defence environment in the early post-disaster period. Marae leaders described the marae setting as having a 'culture of relationships' with 'a lot of wairua aspects', whereas they felt a civil defence context was more about 'bureaucracy and hierarchy'.

Lastly, many participants were frustrated by perceived slow progress with decision-making, especially zoning and insurance decisions. Kaiapoi whānau members said that after the September earthquake, it took 16 months to be told their property was 'red-zoned'. At the time of the focus group (16 months after the February earthquake), Rēhua Marae was still waiting for insurance assessment of the marae.

People's well-being

The earthquake response intensified the workloads and demands on marae community workers and volunteers. Participants reported that some whānau worked shifts of 24 or more hours cooking, feeding, and hosting affected people.

Rēhua Marae leaders said there had been some worker capacity problems in the post-disaster period, as the needs were so great, and the marae hospitality had continued for at least six weeks. One leader described arriving after the initial post-earthquake period, and 'everyone looked stressed and burnt out'. She said the marae team worked 'from six in the morning till two the following morning, seven days a week, during that whole time'.

Participants said the effects on workers and volunteers of dealing with people in severe hardship made it difficult to adapt. Many workers and volunteers were also coping themselves with difficult personal circumstances post-earthquake. Rēhua leaders said the marae staff members were returning 'absolutely shattered...because they were dealing with things in their own home, plus going out to their clients'.

A common theme, across all the marae focus groups, was that many Māori felt whakamā (shy or ashamed) about asking for help, which was a barrier to accessing services. At times, this affected people's well-being, and their ability to contribute to the community. Participants agreed it was common for Māori to seek to avoid taking a 'handout' or 'to be seen as needing help'.

Some participants reported that some Māori had not accessed emergency grants. This was sometimes because of cultural barriers: 'I just think [the grant system] was too Pākehā to them'. For some, service barriers combined with feeling whakamā or shy about asking for help. A whānau member said:

I think we're just too bloody proud...the process was quite a long [one] to even get registered with Red Cross - because they couldn't spell our names you know - and, yeah and there's a lot of whakamā there, you know, when you have to spell your name.

Survival skills

Several participants talked about a greater preparedness and awareness of disaster risk since the earthquake experience, e.g. disaster preparedness kits at home and keeping the car filled with petrol. Other reported survival or coping skills were: a positive attitude and breaks (respite) away from Canterbury. In particular, community leaders stressed the need for workers to have time-out from the marae during the emergency period.

While most participants highlighted the marae, the two whānau focus groups (Kaiapoi and Avondale) did not see it as the first 'port-of-call'. These groups felt that they were self-reliant and resourceful in looking after themselves as a whānau after the earthquakes, so did not see the need to go to the marae. One of these whānau members said:

We had our own [disaster response] hub here in Kaiapoi, the ones that lived in Kaiapoi we use it, we didn't need [the marae]. I didn't want to go out there [to the marae], everything was all here – because [at the marae] it would be exactly the same as what we had in Kaiapoi to help us out.

Extent of adversity

As noted, some participants expressed concern about the mental health implications of the earthquakes over time, and the cumulative effects of stress and trauma. Several said that Māori communities were among the hardest hit by the earthquakes, as many lived in the worst-affected Eastern suburbs of Christchurch and in other affected areas such as Kaiapoi.

Whānau members in the Kaiapoi group said the extent of the earthquake damage was substantial, including the loss of many housing areas where Māori lived, and the destruction of local shops and businesses. They emphasised that Kaiapoi had been severely hit by the first earthquake, in September 2010, as well as by the following aftershocks.

These participants expressed concern about the ongoing and longer term effects of unemployment and job insecurity, the loss of affordable housing, and displacement of low-income people. There were several reports of crowded living conditions, e.g. a family of ten living in one small house. Kaiapoi participants reported a lack of Māori-specific support services in the area, aside from Tuahiwi Marae and the Kaitoko support worker programme.

Kaiapoi whānau members praised the Waimakariri District Council's role in rapidly acting to reduce the adverse effects of the disaster. They felt the council was immediately responsive and active in Kaiapoi, such as ensuring quick provision of water and portable toilets.

Summary

Community responses

All participants agreed that Ngāi Tahu led a well-coordinated Māori earthquake response, based on its network of marae, as well as iwi, hapū, and whānau relationships. Participants said the marae were vital emergency response centres, and hosted visitors and residents affected by the earthquakes.

Rēhua Marae was a central hub for the Māori response, where various agencies were based, including Te Puni Kōkiri. Marae workers and volunteers worked intensively for many weeks to deliver an extraordinary level of hospitality and support for affected people. Partnership with migrant and refugee leaders meant that many ethnically-diverse communities operated and sought support at the marae.

Whānau support was a key response, as well as informal social support among neighbours and friends. Māori-specific support initiatives, e.g. Māori wardens and Kaitoko support workers, were vital in assisting the worst-affected communities and whānau.

Effects of community support on well-being

Opportunities to get together (especially informal talk/kōrero) were valued. Many participants commented on the key role of Māori spirituality in helping people to cope, such as the importance of karakia for enhancing well-being.

Participants agreed that marae-based support had helped the well-being of both Māori and non-Māori. Several marae leaders had helped to welcome and care for overseas families who had lost family members in the earthquakes. They spoke movingly of how the experience had been beneficial for both families and marae leaders.

Factors that affected community resilience

The pre-existing tribal and marae infrastructure was also a major contributor to the resilience of Māori communities. Strong leadership from Ngāi Tahu and the coordinated provision of support on local marae were highlighted. Many participants stressed that marae were inclusive community settings where everyone was welcome.

The enactment of Māori cultural values and practices – e.g. manaakitanga – were fundamental in the response and helped people to cope, participants reported. They reflected that in many cases, whānau relationships had been strengthened through the earthquake experience, and some communities had become more connected.

Participants felt that support from external agencies had helped marae communities to adapt after the earthquakes, especially Te Puni Kōkiri and other iwi from around the country. However, marae leaders also expressed concern that emergency authorities had not resourced marae sufficiently to fulfil their role of providing post-disaster support. A common concern was perceived long timeframes and slow progress in sorting out zoning and insurance matters, which affected marae as well as whānau.

Some participants reported cultural barriers to accessing support services to do with both the culture of services and an individual reluctance (whakamā) to ask for help. Many reported that Māori often felt whakamā about seeking help, which could contribute to unmet needs and undermine resilience.

Conclusion

For marae communities, many ongoing challenges remain, especially working with the most affected and vulnerable whānau, and the continuing effects of earthquake-related stress on physical, mental, and

spiritual well-being. Yet participants expressed much confidence in the Ngāi Tahu-led earthquake-recovery process, and Māori cultural values and practices, to help to develop ongoing resilience.

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Appendix 5: Migrant/Refugee Communities Case Study Report

Acknowledgements

The Canterbury earthquakes have had, and continue to have, a huge impact on all who live in the region. The researchers gratefully acknowledge all the people who took part in this research. We thank the participants for giving their time during a very difficult period, and for sharing their views and experiences. Their reflections and insights have directly informed the potential learning from this research.

Community profile

This case study is on migrant and refugee communities living in Canterbury. Our definition of 'migrant and refugee communities' includes a diverse range of ethnic groups and former-refugee communities. The case study reports the views of selected migrant and former-refugee groups, through the eyes of community leaders and support workers. In particular, there is a focus on culturally and linguistically diverse (CALD) communities, rather than migrants from English-speaking nations.

Migrant and refugee settlement in New Zealand

In 2006³⁸, 23% of people living in New Zealand were born overseas. This is similar to other settler societies, such as Australia (24%) and Canada (18%) (Ministry of Social Development 2008). Before 1986, most migrants came from the United Kingdom and Ireland. Since then, New Zealand's population has become more ethnically diverse, mainly because of immigration law changes. In 2006, the most common birthplaces of overseas-born people who had lived in New Zealand less than 10 years were China (14.4%), followed by England (14.1%), India (7.8%), and South Africa (7.8%) (Ministry of Social Development 2008).

New Zealand has a long history of refugee settlement, and currently has a quota for 750 refugees to move here each year (Ministry of Social Development 2008). The arrival of refugees from diverse countries such as Somalia, Ethiopia, Zimbabwe, Kosovo, Bhutan, Iraq, Myanmar, and Afghanistan has been a feature since the early 1990s (Ministry of Social Development 2008, Immigration New Zealand 2012).

The experiences of refugees are markedly different to the experiences of other migrants. Refugees generally have no choice about when and where they move, and often have to leave family and friends behind very suddenly. Many have experienced persecution, war, torture, deprivation or civil unrest. After resettlement in New Zealand, people with refugee backgrounds have higher rates of unemployment, and lower average household incomes than other migrants (Ministry of Social Development 2008). Although they are no longer 'refugees' once settled in New Zealand (they are

³⁸ The most recent census data available is 2006. The 2011 census was postponed because of the Christchurch earthquakes.

‘former refugees’), it is important to be aware of the unique challenges and disadvantages faced by these communities³⁹.

Migrant and refugee settlement in Canterbury

Christchurch is known as one of the main centres for migrant and refugee resettlement. In 2006, 11% of new migrants and refugees (those living in New Zealand less than five years) lived in Canterbury. This was second only to Auckland, where migrant and refugee resettlement is heavily concentrated. In the 2001 census, 6.7% of the Canterbury population said they were ‘ethnic’ as opposed to European or Māori. By the 2006 census, this had grown to 11%. This shows Christchurch is becoming a more ethnically diverse city (Christchurch Resettlement Services 2007).

Methods

Community resilience is defined as the process of communities adapting positively to adversity or risk (Kobau et al 2011, National Mental Well-being Impact Assessment Collaborative 2011). This research project gathered information from affected Canterbury communities to understand what helped (and hindered) their resilience. The research does not evaluate the effectiveness of community responses. Rather, it examines and describes a selection of those responses to identify factors that build community resilience.

We held focus groups and interviews with 92 Christchurch participants. This case study is one of six:

- Lyttelton
- Shirley
- Inner City East
- marae communities
- migrant and refugee communities, and
- Christchurch Community House (as a workplace community).

The research focuses on post-earthquake recovery from February 2011 to July 2012. We carried out the fieldwork between May and July 2012, about 16 months after the destructive February earthquake. We wrote the report in October and November 2012, and then sought and added input from the advisory group, key contacts from the case-study communities, government agencies, and the two funding agencies – the Health Research Council of New Zealand and Canterbury Medical Research Foundation. We finalised the report in early 2013.

As the migrant and refugee communities case study is part of this larger research project, it should be read with the full report, which gives further detail on the methods, limitations, and implications of the work.

³⁹ Note that the terms ‘refugee’ and ‘former-refugee’ are both used in this case study to refer to groups with a refugee background. This reflects common usage in contemporary New Zealand society.

Participants

This case study included two focus groups with a total of 11 people (former-refugee community leaders, migrant community leaders). Focus-group participants were part of eight communities: Somali, Ethiopian, Bhutanese, Chinese, Korean, Japanese, Indian, and Indonesian.

Two individual interviews were also held, with a Nepalese community leader (who could not attend the focus group), and the coordinator of the Settling-In initiative (described below). The Settling-In coordinator is Pākehā/NZ European, and has worked with migrant and former-refugee communities for many years. He was interviewed because of his knowledge and experience with these communities.

Each of the migrant and refugee communities in Christchurch is unique, with its own history, and its own earthquake survival and recovery story. This case study does not aim to examine the resilience of each ethnic community after the Canterbury earthquakes. Instead, the aim is to learn about the main factors that helped and hindered migrant and refugee communities to adapt after a natural disaster.

The case study is based on the views of a small number of individuals in leadership and community support roles, and may not reflect the views and experience of migrant and refugee communities more broadly. It does not include perspectives from 'ordinary' migrants and refugees – instead, it is focused on migrant and refugee leaders. For practical reasons, it was not feasible to include 'ordinary' migrant/refugee community members. However, the leaders who took part were almost all migrants or former refugees themselves.

Key organisations

This case study was organised through two organisations: Christchurch Migrants Centre and Canterbury Refugee Council. This section gives a brief overview of the key organisations involved.

Canterbury Refugee Council

The Canterbury Refugee Council represents the refugee communities in the Canterbury region. It aims to collect and disseminate information, and to work with former-refugee communities at a grassroots level. The Council is committed to inter-culturalism, to facilitating the participation of refugees and asylum-seekers at all levels of society, and to following the principles of community development.

The Refugee Council is an independent non-governmental organisation without political or religious affiliation. Membership is open to all refugee individuals and organisations that support the organisation's aims. Canterbury Refugee Council is funded and/or supported by Canterbury Community Trust, Department of Internal Affairs, Department of Labour Settlement Support, Ministry of Social Development, and Family and Community Services (Human Rights Commission 2012).

Christchurch Migrants Centre

The Christchurch Migrants Centre offers a coordinating service and 'one-stop-shop' for resettlement and integration issues for new migrants and refugees in the greater Christchurch area. The Centre also provides office services and meeting facilities for ethnic associations. It is managed by a trust of 10 Christchurch citizens representing: new migrants, Tangata Whenua, and people experienced in governance and financial management (Human Rights Commission 2012).

Christchurch Multicultural Council

The Christchurch Multicultural Council promotes the awareness and acceptance of a multicultural society. It cooperates with central and local government agencies and voluntary organisations (Human Rights Commission 2012).

Settling-In

Settling-In is an initiative of Family and Community Services (FACS), a service of the Ministry of Social Development (MSD). Settling-In was established in 2004 to help build relationships between refugee, migrant, and host communities and to ensure that government policy affecting them is developed in a collaborative way. Settling-In is a community development initiative that works directly with refugee and migrant communities to help them find solutions to meet their own needs. The focus of this work is to identify and address social needs within the wider context of family and community social well-being (Family and Community Services, 2012).

Migrant Inter-agency Group

The Migrant Inter-agency Group was set up on the day after the February 2011 earthquake by the Settling-In Coordinator, with administrative support from Christchurch Migrants Centre staff. Other members of the organising team included a multi-cultural adviser to the leader of Ngāi Tahu (the major local Māori iwi/tribe), and the Chair of the Canterbury Refugee Council. The group operated from Rēhua Marae, in partnership with the Ngāi Tahu leadership.

Before the February 2011 earthquake, staff members from Settling-In, Canterbury Refugee Council, and the Christchurch Migrants Centre were sharing premises at Rēhua Marae, in anticipation of moving into the Migrants Centre's purpose-built premises, in the central city, in late February. This site became inaccessible after the quake.

More than sixty agencies and migrant and refugee associations were involved in the inter-agency group over the peak period, February to May 2011, and provided social services to migrants and refugees, in particular to those from CALD communities (Christchurch Migrant Inter-agency Group 2012).

Findings

Effects of earthquakes on well-being

The earthquakes had dramatic effects on individual and collective well-being. Fear of continuing aftershocks was a strong theme in this case study, and people said the lack of any control over 'Mother Nature' was particularly difficult. One participant noted that some migrants and refugees were particularly vulnerable to alarmist media messages predicting more earthquakes. He said this was because of language barriers, limited scientific knowledge about earthquakes, and earlier experiences of trauma. Community leaders said that prior experiences of trauma meant the earthquakes and aftershocks rekindled past traumatic experiences for some individuals, compounding the negative effects on well-being for many families.

Participants noted that, despite the best efforts of migrant and refugee community organisations and leaders, some refugee and migrant groups still faced much hardship at the time of our fieldwork (16 months after the February earthquake). The health effects of unemployment, substandard housing and overcrowding were highlighted as significant problems. A migrant leader spoke about a recent whooping cough epidemic in the city, exacerbated by household overcrowding since the earthquakes, for example. He said many migrants and former refugees were living in damaged or crowded houses because of the loss of affordable housing stock post-earthquake. He said 'a lot of families are really struggling'.

Some participants commented that fear of potential 'loss of face' was a barrier to help-seeking in some cultures (e.g. Pacific cultures). This stopped some families in need from coming forward for help.

Community responses to the earthquakes

Participants spoke about the following community-based responses to the earthquakes.

First few days

Informal emergency relief

Participants reported that straight after the major earthquakes, people from migrant and refugee communities checked on each other, and provided food and/or housing to others in their ethnic group. There were also stories of people helping, or being helped by, their 'Kiwi' (New Zealand-born) neighbours. For example, one participant said:

I call out to the neighbours, I start to cook food in my garage, I've got firewood. I start the fire in the garage and I cook food for them...I help many...Right, so that was with your neighbours that lived close to you? Yes. Not only the Bhutanese community, there were some Kiwis, some other families – all those people living close to me.

Participants emphasised that there was little official help available in the first few days, and so people relied on each other.

Partnership and interagency meetings at Rēhua Marae

As mentioned above, a formal partnership between Ngāi Tahu and migrant and refugee communities began straight after the February earthquake. The Ngāi Tahu leadership extended the earthquake recovery coverage at Rēhua Marae to *all* ethnic communities living in Canterbury. This meant migrant and refugee groups could use the Ngāi Tahu call centre (0800 emergency phone number), Rēhua Marae's facilities, and attend information briefings.

At first, an inter-agency meeting, between emergency authorities (e.g. Police, Civil Defence, Public Health) and migrant and refugee organisations, was held each day. A participant, who helped organise the meetings, said: 'Within 2-3 days, we had 60-70 people coming to every meeting'.

Participants said the daily meeting was a chance to get updates, raise issues, share information, and work together to provide a coordinated response. Over a three-month period (February to May 2011), these meetings became less regular, from daily to weekly. During this time, Settling-In, Canterbury Refugee Council, and the Christchurch Migrants Centre shifted from Rēhua Marae to a netball centre because of limited space at the marae. The inter-agency meetings also shifted as a result.

Volunteer work to clear silt

Within a couple of days, some migrant and refugee communities had organised teams to help with the emergency response in the hardest hit suburbs. For example, one participant reported that about 200 children and adults from the Korean community helped the silt clean-up efforts in the Eastern suburbs for about 10 days following the February quake. As well, a few participants said the Student Volunteer Army had given helpful support to migrants and refugees.

First few weeks and months

Support and information at Rēhua Marae

The inter-agency group organised social services for ethnically-diverse communities at Rēhua Marae. Migrants (including former refugees) were supported in practical ways, e.g. provision of food and medications.

Māori wardens also operated from Rēhua Marae. Their role is to support whānau in Māori communities. They played a key role by door-knocking in high-needs communities and providing help at marae. Participants said there was a close working relationship between Māori wardens and migrant and refugee community leaders, because of good relationships built in the years before the earthquakes, and their shared location at Rēhua Marae. Migrant and refugee leaders said that Māori wardens would find migrants and refugees who needed help through their door-knocking, and would refer them to migrant and refugee services that could help.

The marae also became a distribution point for getting emergency messages out to migrant and former-refugee community members, especially those with limited English. Migrant and refugee community leaders translated information into many languages used in Canterbury.

Contacting individuals

Early on, some ethnic associations aimed to contact each individual from their community, either by phone or in person. In some cases, relevant embassies led this process or helped by providing lists of registered nationals known to be living in Christchurch.

Several participants said that Refugee Council members had checked on about 300 refugee families in the early days and weeks after the February earthquake. Door-knockers visited homes in person, providing information and supplies. One Council member also introduced refugee families to their neighbours during these visits. As another participant reported:

[The Council member] was going in and knocking on the door of the neighbour saying 'Hi, I'm _____ and you've got some neighbours who are Somali neighbours here, and you haven't met them but, you know, it's a good idea in these emergency times to get to know each other', and he didn't have any rejection from anybody... people got to know each other, yes, they all agreed to look after each other...I thought it was fabulous work.

This initiative was thought to have been partly inspired by the Mayor Bob Parker's post-earthquake messages, encouraging neighbours to support one another (on radio and television after the September 2010 earthquake).

Getting emergency information out to ethnic communities

Participants noted that members of culturally and linguistically diverse (CALD) communities had varying levels of English-language ability. They said that in a disaster situation, people's ability to understand messages in English was often reduced. As one community worker said:

A lot of people could read or speak English [but] in an emergency situation or a trauma situation [they] revert back to their own language, so...where normally they could function, sometimes...people couldn't function [in English] because of the terror and the trauma.

Because of this, making sure that CALD communities received and understood official messages in their own language was a key priority for migrant and refugee leaders. They reported this was a difficult task. Participants said that straight after the earthquake, the official emergency response messages (e.g. about the need to boil tap water) were only provided in English. They said that messages used complex words and grammar, making them difficult to understand and translate. Another problem was that the usual channels of communication – community radio, ethnic websites, and email – were out-of-action because of earthquake damage and power outages.

The Christchurch City Council said translated emergency information was available within the first few weeks after the earthquakes (in multiple languages), but migrant and refugee leaders in this case study

reported that many migrants and refugees did not have easy access to emergency information in their own language from authorities.

As noted, migrant and refugee leaders based at Rēhua Marae worked to translate key information into diverse languages. A member of the Refugee Council explains how they got the messages out:

We got that [official emergency information] from Settling-In in the first place and then we was going round the houses, and we was telling everybody: 'Don't drink the water, boil the water'. At least three minutes, that was the information, it has to boil at least three minutes from when the water is boiling...I was telling the people, we tell every refugee that.

Distribution of emergency supplies

Migrant and refugee organisations helped to distribute emergency supplies within their communities. For example, the Refugee Council received supplies like torches, hand sanitizers, and first-aid kits through the Christchurch Central MP, and distributed these to former-refugee families.

Advocacy

Support organisations and community leaders also advocated on behalf of migrant and refugee families and communities. This was part of their pre-earthquake role, but increased after the earthquakes because of increased needs, and has been ongoing. An example was advocating for a prayer space for Islamic people at an emergency accommodation centre:

We ran across problems for the Islamic people at Pioneer Stadium, which was set up as one of the emergency hubs at one point. People were getting quite stressed down there because they didn't have a place to pray...The people who had organised [the hub] hadn't realised, and we were able to get out there and explain and say 'look, you've got some Islamic people here, you need to make some provision for them, [they need a] space to pray somewhere', you know...and they're just 'oh yeah great, okay, we hadn't thought of that'.

Mosque

Participants said the Christchurch Mosque became an unofficial emergency accommodation and support centre. It provided food and shelter for up to 450 people in the days and weeks following the major earthquakes, for at least one month. Participants said the social support offered was as valuable as the practical help:

Some people, they lost [their] house and [they] stay [at the mosque] until they find accommodation, yes. So...if you've got each other, [you think: 'if] we stay together, we will get through'. But [if we] stay alone, it was hard, it's very hard.

Informal support

Support between community members or neighbours continued in the weeks and months after the earthquakes. Migrant and refugee participants said there had been much informal hosting of people. One of the migrant leaders, for example, had two families living with her for three months after the February earthquake.

Recent and ongoing initiatives

A wide range of initiatives and community actions had happened more recently, and many were continuing at the time of the interviews and focus groups (June 2012). For example:

- **Community Languages Information Network Group (CLING)** – a collaboration, which emerged from the Inter-agency Group, to encourage better communication between mainstream agencies and ethnically-diverse communities. CLING includes: Christchurch City Council, Canterbury Earthquake Recovery Authority, Christchurch Resettlement Services, Community and Public Health (CDHB), Interpreting Canterbury, and Partnership Health Canterbury.
- Work to establish **English for Speakers of Other Languages (ESOL) support** for new migrant workers coming to Canterbury for the rebuild.
- A **Migrant Hub** website was set up in June 2012, to put all migrant-related (including refugee) information in one place in many languages. It is a platform for information and networking.
- **Fundraising** by migrant and refugee churches and community groups e.g. Korean church groups.
- Organisation of **respite accommodation** outside Canterbury for former-refugee families.
- **Spiritual support** from religious leaders.
- **Social support initiatives** – e.g. Malaysian women’s exercise group.
- **Advocacy** about the needs of migrant and refugee communities to Canterbury Earthquake Recovery Authority (CERA), public-health authorities etc. – e.g. the publication of the ‘Lessons Learned’ document by the Migrant Inter-agency Group.
- An Interagency **Refugee and Migrant Health Group** was established.
- A meeting of migrant and refugee leaders in the Chinese, Japanese, and Korean communities was called to discuss the issue of **economic development** post-quake, specifically loss of tourism business and international students.

Effects of community responses on well-being

Participants agreed that face-to-face, ethnic-specific support, from other community members and ethnic associations, was essential to help people cope with fear, emotional distress, and practical challenges. As one community worker commented:

I actually think it's what's enabled people to survive because there hasn't been a hell of a lot else you know,...It's been the actual communities, and the community support, that's enabled people to function and carry on in this ongoing aftershock situation, which has gone on for month after month after month.

Participants explained that refugee and migrant groups faced many practical challenges in the disaster context. Examples included: the language barrier, lack of knowledge about grants and supports available and how to access them, lack of knowledge about New Zealand civil defence and welfare organisations and processes, and problems with EQC and landlords. Additional factors for many refugee groups were poverty, experience of prior trauma, and lack of knowledge about earthquakes. Participants reported that people with existing mental health problems found it particularly difficult to cope with the ongoing aftershocks.

Participants described how community groups and local NGOs helped families overcome the above challenges. As well, communicating health messages (e.g. to boil water) and other vital information to culturally and linguistically diverse (CALD) communities was essential for health and well-being. Some participants said religious organisations and religious leaders helped to support and enhance migrant and refugee well-being. The mosque was described as ‘vitaly important’ for Islamic communities, for example.

Factors that affected community resilience

Participants identified many factors that helped (or hindered) migrant and refugee communities' ability to adapt after the earthquakes. These factors are grouped into seven headings:

- community connectedness
- opportunities to get together
- community infrastructure
- external support
- people's well-being
- survival skills
- extent of adversity.

Community connectedness

Participants reported that some migrant and former-refugee communities, especially smaller ones, were cohesive and had good internal communication networks before the earthquakes. This was seen as positive and reportedly helped communities to adapt. However, participants noted that most ethnic communities were dispersed across the city, rather than living in the same neighbourhoods. This meant that physically getting together as a community, or even making contact with each other, was difficult or impossible in the days and weeks after the major earthquakes.

Some communities left Christchurch altogether, not because their homes had been destroyed, but because they did not feel safe. For example, the entire Kurdish community of about 170 people reportedly left within 48 hours of the February earthquake and had not returned at the time of the fieldwork (16 months later). One refugee leader said: 'Most of the refugee community, they went away from the city...everybody was in a panic, everybody was (trying) to save themselves and their families'. Many families have reportedly relocated to Auckland, Australia, or elsewhere. Participants said that the exodus of former refugees had a negative impact on those who remained in Christchurch, and led to a sense of isolation and dislocation, as this community leader explains:

Now when there are birthdays there's nobody there. You feel like 'where is everyone?' You feel like you're lost, you know, you feel it is hard, because of the earthquake everybody's just gone.

Some communities struggled to maintain connectedness because families tended to stay at home in fear of aftershocks. For example, one participant reported that Nepalese/Bhutanese prayer meetings (previously held in people's homes) had all but ceased since the earthquakes.

On the positive side, some leaders reported that migrant and refugee communities remaining in Christchurch were now closer because people wanted to be better connected to their ethnic communities. They said post-quake membership in some ethnic organisations (e.g. the Japanese Society) had increased.

One community leader said there was now more willingness to work *across* ethnic groups, e.g. on joint events and initiatives like the successful Africa Day held in June 2012. A participant commented:

[We were] expecting about 250 people...and had over 800 people arrive, heaps of people, African people from all over Christchurch. Everyone was astounded, including myself...all different ethnicities...Somalis and Ethiopians...South Africans, white South Africans. It was amazing and it was

fabulous. It's actually the best Saturday night I've had for years. So that sort of thing seems to happen [more since the earthquakes], it's more easily done, you know.

In some cases, participants reported that families had become closer to their New Zealand-born neighbours. Some migrant and refugee leaders said it was important to connect with the host culture in particular, because neighbours, rather than communities of interest, are best-placed to support one another in a disaster. Several also spoke of feeling a sense of unity and shared purpose with all people after the earthquakes. For example, one refugee leader said of the people who died in the earthquakes:

I feel those people have passed away...it doesn't matter [if they are] black or white, they are human beings, those people...they left in the morning, [but] they never come back home, you know. They are part of me and also I pray for them too because they are my family, they're human being. In a disaster there's no matter religion, no matter colour, we have to think about one another a human being.

Opportunities to get together

Many participants said it was important to get together, e.g. 'people have to connect with each other to [be able to] help each other'. Some leaders said it was important for women, in particular, to interact socially as they are key communicators. A migrant community leader said: 'What we learned [is] that women need to be together because they're the ones holding [the family together] – when women fall apart, the whole family falls apart'. This participant reported that exercising together, and cooking classes, had helped migrant women to look after one another. The success of Africa Day was another indicator of the importance that migrant and refugee communities placed on opportunities to get together.

However, as noted, fear of ongoing aftershocks apparently reduced opportunities to get together in some communities, since many people were unwilling to go far from home. Participants noted that limited access to transport, and lack of community meeting spaces, were pre-existing factors that also constrained opportunities to get together in some communities. For example, one refugee leader commented:

After the earthquake, people, they're really scared to move, you know, [or] come to the other's house for a long time, and...they don't have a good space, they don't have a community hall where they meet.

Community infrastructure

Participants reported that pre-existing organisations, networks, and communication channels (e.g. ethnic websites) were a key factor in enabling ethnic communities to communicate and respond after the earthquakes. For example, Rewi Alley School became an important hub for Chinese communities post-earthquake, and an Indian leader said:

There are nearly 5,000 Indians [who] live in Christchurch...and there are a number of Indian associations, groups, or clubs, so they have their own communication systems, so... the Indian [people were] communicating through those channels.

But as noted, a major problem straight after the earthquakes was that many of the usual means of communication in culturally and linguistically diverse (CALD) community languages (e.g. ethnic websites, community radio) were not available.

Existing community infrastructure included: volunteer-run ethnic associations, religious groups, and umbrella organisations like the Refugee Council, along with many NGOs supporting and advocating for migrant and refugee communities. Community leaders said that since the earthquakes, it was important to encourage more migrants and refugees to join ethnic associations.

Migrant and refugee leaders reported more interagency collaboration, unity, and willingness to work together across ethnic divides since the September 2010 earthquake. Many highlighted the importance of networking and information sharing, and said that migrant and refugee communities were in a better position to respond to the February 2011 disaster because of improved relationships between key organisations. Participants said that partnerships and collaborations had continued to flourish and positive new ways of working were continuing to emerge.

A recent example was the Migrant Hub website for all migrant and refugee communities, established 16 months after the February earthquake.

External support

Pre-existing relationships with external organisations helped refugee and migrant organisations to adapt after the earthquakes. Vital relationships had existed with Ngāi Tahu, Rēhua Marae, the Department of Labour, Internal Affairs, and the Ministry of Social Development, for example. Existing networks and relationships were described as ‘very helpful’ because they facilitated the timely provision of external support.

Support from the Ngāi Tahu leadership was mentioned by several participants, and the Settling In coordinator highlighted the relationship with Māori wardens as especially helpful. He said that good relationships before the earthquakes meant that post-quake, there was close liaison, good communication, and referral of migrants and refugees who needed support:

We set up a really good rapport with the Māori wardens...who were out there on the streets, you know...if they had anything that affect people other than Māori, they just let us know straight away, you know, [they asked:] ‘can you do anything to help?’...So through them, we actually got quite a good communication system running.

Several migrant and refugee leaders also praised the Settling-In service and the Department of Labour, saying they were focused on the well-being of refugee communities, communicated well, and gave good advice. They also noted the close working relationships between these agencies, and migrant and refugee leaders. For example, a refugee leader said of the Settling-In service:

Settling-In, really they was always with the refugee community, they’re always giving right directions...Settling-In was actually providing information, the right information at the right time, to the refugee communities and clear message – I appreciate that.

Participants were generally positive about the role of emergency services (especially ethnic police officers), government agencies, embassies, and major NGOs. One participant commented:

I think the big players did an amazing job. Like, you know, the Civil Defence, the emergency services, the DHB, the health services, some of those big agencies, big NGOs like Red Cross and St Vincent de Paul.

Participants reported that external organisations were generally responsive when community leaders raised concerns. For example, one leader said he had advocated to Housing New Zealand on behalf of a number of former-refugee families whose houses were badly damaged, and those families were

promptly re-housed. He said that Housing New Zealand collaborated well with migrant and refugee organisations and 'helped a lot'.

Other comments were that Work and Income (Ministry of Social Development) was helpful in providing food and money for clothes, and that Civil Defence had recently engaged with migrant and refugee leaders, and incorporated the learning into their future planning.

However, as noted, one key criticism was that official emergency response information was initially in English only – and often complex English. Some migrant and refugee leaders said they, not officials, should be funded to translate future information, as they believed quicker information-sharing would then take place. A migrant leader said authorities needed to change how they work, to communicate better with diverse communities, as the New Zealand population is growing more diverse.

The need for resourcing of post-earthquake community support was also raised. A refugee leader noted there had not been official financial support for the mosque's role as an unofficial welfare centre after the February earthquake, for example.

Another reported concern was a limited interface between migrant and refugee communities and the Christchurch City Council, although some said that recently there had been more contact. One migrant leader said that while relationships with city councillors were positive, the links with officials were less strong. A refugee leader commented that this was an issue that both community groups and Christchurch City Council need to address:

[Migrant and refugee community groups] are complaining that...there's no dialogue between them and the City Council...Now [when] we are in a bit of an emergency, a lot of groups are doing something good, but unfortunately the council is quite disorganised in a way, because they don't know who to contact...I think the [migrant] community need to take some ownership of that [and ensure that Council are aware of them and their contact details].

Finally, migrant and refugee leaders said they had positive relationships with the Canterbury Earthquake Recovery Authority (CERA), but also felt they had not been consulted enough on CERA's future planning work.

People's well-being

Many concerns about migrant and refugee well-being were reported. These were thought to constrain the ability of communities to adapt after the earthquakes. In particular, depression, stress, and trauma were highlighted as large, ongoing problems, particularly in former-refugee communities.

One migrant leader commented that, after the earthquakes, collective burnout of migrant community leaders was a problem. He said that leaders were 'worn out,' and this could limit their ability to keep contributing to collective efforts.

Survival skills

Participants commented that adaptability, and prior experience of natural and human-made disasters (e.g. war) in their home country, were factors that helped communities to adapt after the earthquakes.

Extent of adversity

As noted, former-refugee communities, in particular, face many practical problems and disadvantages. Participants said earthquake-related problems have added an additional burden to pre-existing stressors

and difficulties. The slow nature of the recovery was also raised as a barrier to positive adaptation for migrant communities. One leader noted that while transport was a continuing challenge, he felt local authorities had done well in addressing post-earthquake transport difficulties.

Community leaders also said that many migrants and former refugees lacked contents insurance, so the financial impact of the earthquakes was made worse. One pointed out that a lack of extended family support in New Zealand made life more difficult for some migrants, when most family members lived overseas.

Summary

Community responses

Many migrant and refugee communities responded to the earthquakes with strong informal support within ethnic/cultural groups. There was also a rapid and strong organised response from support agencies, and many ethnic community and religious groups.

The Migrant Inter-agency Group coordinated a combined response across migrant and refugee communities. Established straight after the earthquake in February 2011, the group involved about sixty agencies and groups. It was still in operation at the time of the fieldwork (16 months after the February earthquake). Initial efforts focused on disseminating emergency information in ethnically diverse languages, and assisting with welfare issues. Migrant and refugee leaders formed a partnership with Ngāi Tahu, which allowed migrant and refugee support activities to operate from Rēhua Marae, and enabled close links with Māori wardens and referral of migrants and refugees needing support. In the longer term, the community response has involved advocacy at a number of levels, especially improving communication from authorities to ethnically-diverse communities. The Migrant Inter-agency Group takes a continuing focus on the health and well-being of migrants and refugees, along with organisation of social events, for example.

Effects of community support on well-being

Ethnic-specific support from ethnic associations and migrant and refugee leaders was important for migrant and refugee well-being, as was support from religious organisations like the mosque.

Factors that affected community resilience

The key factors that helped migrant and refugee communities to adapt and respond to the February earthquake were: pre-existing community connectedness and communication networks, as well as collaboration with external agencies. This case study shows how strong inter-agency links facilitated a coordinated, inclusive response that delivered ethnic-specific support to many diverse ethnic groups in Canterbury. Inter-agency connections were made rapidly because of pre-existing relationships, especially between migrant and refugee leaders and Ngāi Tahu leaders.

External support was also vital, especially from the Department of Labour and the Settling-In service (Ministry of Social Development). Post-earthquake coordination of the efforts of many government and community organisations was greatly assisted by daily interagency meetings, initially held at Rēhua Marae.

On the negative side, migrant and refugee leaders emphasised that post-earthquake challenges with housing, unemployment, and mental health were reducing community resilience in some groups. Social isolation was also a problem in some former-refugee communities, because of transport problems, lack of meeting spaces and the re-location of many families to other cities.

Communication was highlighted as a major problem, especially the predominance of English-language emergency information in the initial aftermath of the earthquake. Migrant and refugee leaders said problems with communication often compounded the risks to migrant and refugee well-being. A positive spin-off from the inter-agency group was collaborative work to improve authorities' communication with ethnically-diverse communities (the CLING network).

Conclusion

The ability of migrant and refugee communities to adapt after the earthquakes was limited by geographic dispersion across the city and reduced opportunities to meet. Pre-existing challenges, such as economic disadvantage, were also noted by participants. Despite the challenges, migrant and refugee leaders seemed optimistic about continuing collaboration between migrant and refugee organisations and improving links and joint work with official agencies.

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Appendix 6: Community House Case Study Report

Acknowledgements

The Canterbury earthquakes have had, and continue to have, a huge impact on all who live in the region. The researchers gratefully acknowledge all the people who took part in this research. We thank the participants for giving their time during a very difficult period, and for sharing their views and experiences. Their reflections and insights have directly informed the potential learning from this research.

Community profile

This case study is of a workplace community, Christchurch Community House. It focuses on workers as the main community members.

Christchurch Community House is a large 'one-stop-shop' of 52 community organisations with a shared office space. Its multiple tenant organisations are not-for-profit social services and small voluntary groups, including: Council of Social Services, Tenants Protection Association, Volunteering Canterbury, budgeting and citizens' advice services, and various support groups and ethnic associations. Community House offers the tenant organisations affordable office space, meeting rooms, shared administration resources, a referral service, and access to information and advice.

A 'hub' environment provides opportunities to work collaboratively and to network. The public and clients of the various tenant community organisations have access to many services in one central location.

Christchurch Community House is the largest and longest-running community hub in New Zealand, though other cities have similar models. It has operated for over twenty years. Before the February 2011 earthquake, around 400 community groups used the facilities on a casual basis. The reception and volunteers handled around 1200 contacts per month, not including the clients that each tenant organisation worked with directly.

Community House seeks to reduce operating costs for its many tenant organisations, e.g. with a shared PABX and broadband internet connection, a stationery purchase network, and group contents-insurance scheme. Internal research by Community House showed that tenants saved 73% when compared with the cost of being located in local business centres (personal communication, Community House manager).

Structure and funding

Community House has a manager, administrator, and volunteers, and is governed by a Tenants' Trust Board. Community House is largely funded by the Canterbury Community Trust and the Christchurch City Council.

Before February 2011

Before the February earthquake, Community House was located in Hereford Street in the central city. It was a hub for networking and community development. There were House morning teas every week,

monthly tenants' meetings, and a social club. Other community-building activities included: celebrations of special events, Māori Language Week and New Zealand Sign Language Week, an annual Funding Expo, training days, and regular guest speakers, for example (sources: Community House website, newsletters, and media articles).

Impact of the earthquakes

The Hereford Street building was badly damaged in the February earthquake, and demolished several months later. All of the occupants escaped alive, however, some were injured. All of the building's occupants worked from home or various temporary offices from February 2011 for approximately 20 months. No one was allowed to return to the building after the earthquake, so valuable items such as equipment, records, and archives were lost.

The Community House management and board searched for over a year for an appropriate alternative office space, and eventually (March 2012) – with help from funders and Canterbury Earthquake Recovery Authority (CERA) – secured a warehouse building. The Community House staff and tenant organisations moved into the converted building in Tuam St in October-November 2012.

At the time of our research fieldwork (May-June 2012), it was understood the new building would be leased for five years, however, at the time of writing only a nine-month lease had been secured. The search for a long-term home for Community House is therefore ongoing.

Post-earthquake, the demand for social services increased, so tenant organisations were faced with the need to respond to greater social problems and client needs in difficult circumstances. Many worked from their kitchen tables, garages, sleep-outs, or in cramped temporary offices.

Methods

Community resilience is defined as the process of communities adapting positively to adversity or risk (Kobau et al 2011, National Mental Well-being Impact Assessment Collaborative 2011). This research project gathered information from affected Canterbury communities to understand what helped (and hindered) their resilience. The research does not evaluate the effectiveness of community responses. Rather, it examines and describes a selection of those responses to identify factors that build community resilience.

We held focus groups and interviews with 92 Christchurch participants. This case study is one of six:

- Lyttelton
- Shirley
- Inner City East
- marae communities
- migrant and refugee communities, and
- Christchurch Community House (as a workplace community).

The research focuses on post-earthquake recovery from February 2011 to July 2012. We carried out the fieldwork between May and July 2012, approximately 16 months after the destructive February earthquake. We wrote up the fieldwork in October and November 2012, and then sought and incorporated input from the advisory group, key contacts from the case-study communities, government agencies, and the two funding agencies – the Health Research Council of New Zealand and Canterbury Medical Research Foundation. We finalised the report in early 2013.

As the Community House case study is part of this larger research project, it should be read with the full report, which gives further detail on the methods, limitations, and implications of the work.

Participants

This case study is based on the reports of eight individuals. Participants were: the Community House manager and chairperson, as well as various staff representatives of five tenant organisations in Community House. Most representatives of tenant organisations were the managers of their individual organisations. One of these organisations had decided not to return to Community House, as it had secured a building elsewhere. The other four tenant organisations intended to remain with Community House once it opened in October 2012.

The participants were aged from 30 to 64 years. Seven identified as Pākehā (European) New Zealanders, and one identified as both Māori and Pākehā. Most had worked in Community House for more than ten years. Six participants were female and two were male.

All tenant groups operate as distinct organisations, so the Community House manager is not the employer of the individual staff. He is responsible for the building and overall coordination of the collective work environment.

Community House was selected as a case study because it was a large, well-established community-sector workplace (and hub for community groups), which lost its workspace in the February earthquake. Community House organisations work with many of the most vulnerable and marginalised people in Canterbury as clients, and the loss of the building impacted on both workers and clients who used the community services in the building.

Note: Several levels of community operate in Community House. The various tenant organisations operate as individual communities. Clients of the various organisations may also be considered part of the broader Community House community. However, for this case study, the focus is on the collective *worker community*, not the clients or individual organisations.

Findings

Effects of the earthquake on people's well-being

As Community House was located in the central city, many workers were exposed to frightening experiences and traumatic scenes on the day of the February earthquake. They witnessed buildings collapsing around them, and feared for their own and others' lives. Some were injured, and many saw other injured or distressed people in the streets. These experiences reportedly had ongoing effects on well-being.

Community House participants reported that the needs of their clients had escalated with the earthquakes. Workers in tenant social service organisations said they were supporting many affected and vulnerable people, while dealing with their own displacement from the Community House work environment, and sometimes from their homes as well. These compounding challenges affected the well-being and personal resilience of workers. A representative of one tenant organisation said:

And then we've had two staff members lose their houses, and I'm sure most of the tenant [organisations] have [had] staff members lose their houses as well as losing the Community House – and that's incredibly hard to deal with.

Living with uncertainty was another reported challenge. A tenant organisation, for example, said:

The lack of certainty everywhere – not just about the House – but the lack of certainty for everybody everywhere makes it really hard.

Community responses to the earthquakes

Participants spoke about the following community-based responses to the earthquakes.

First few weeks

Day One response

The February 2011 earthquake struck at 12:51pm when many tenant-organisation staff were in the Community House building. Following a pre-organised evacuation plan, all staff and clients left the badly damaged building and regrouped in nearby Latimer Square. Some were injured, but none required hospital treatment, and there were no fatalities amongst Community House occupants or visitors to the building. After establishing that everyone was accounted for, people dispersed to return home and check on loved ones.

As the Community House building was unusable because of earthquake damage, the manager's immediate priority was to contact all tenant organisations to check on their welfare, assess needs for communication and support, and establish new communication channels. He also forwarded regular information about the fate of the building and its contents.

Regular meetings

The manager and chairperson organised regular morning-tea gatherings for all Community House tenant organisations. These meetings began four weeks after the February earthquake, and were held fortnightly or monthly for the first few months.

Because of the loss of central city meeting spaces, these meetings were held in many locations, including the manager's home. The initial – and primary focus – was to provide an opportunity for organisations to catch up with each other, and to give and receive support. A secondary purpose was to discuss organisations' needs, and whether they wanted to continue as part of Community House in future.

Informal support

Participants reported that informal social support occurred between many of the organisations, where people would phone or visit each other, based on pre-existing professional and personal relationships. One participant commented that organisations that had worked closely together before the earthquake 'connected immediately and started working together again'.

More recent and ongoing initiatives

Regular meetings (about every two months) continued to be held for Community House management and tenant organisations. Meetings were still continuing at the time of our research fieldwork (May 2012), on an as-needed basis. More recent meetings focused on the process of securing a new building. There were also opportunities to network at other meetings, e.g. the Annual General Meeting (AGM) of Community House.

The Community House manager and trust board led the search for a new building, and reportedly kept organisations 'in the loop' about progress, through both the regular meetings and telephone contact. These helped to find out organisation's needs and preferences for the new building, and also to see how organisations were coping in the post-quake environment.

Workers from two tenant organisations organised a memorial service for Community House members (management and tenant organisations) to mark the first anniversary of the February earthquake. This involved: an informal picnic lunch in Latimer Square, quiet reflection during the tolling of the bells, and a prayer. People also took part in adding messages of hope to 'memorial trees'.

The tenant organisations communicated with authorities as a collective. For example, the Community House management used questionnaires to gather information on post-earthquake needs from all tenant organisations and reported this back to the Christchurch City Council. Participants said this was more centralised and efficient than if the council had individually asked all 52 tenant organisations.

Informal social support was also continuing between individual Community House members. One participant commented: 'I think again it comes back to the people who had the strong relationships prior still have the strong relationships'.

Effects of community responses on well-being

Tenant organisations reported that the regular post-earthquake meetings for Community House members helped to improve people's well-being. The meetings provided opportunities to talk and share experiences. Meetings helped participants to reconnect with colleagues, e.g. one said:

It was really, really great seeing everybody again, and all the hugs and all that kind of stuff...Just the opportunities to get together again...and catch up and...just that whole friendship thing really. Sharing experiences.

Both management and tenant organisations said that the regular morning-tea meetings were generally well-attended and appreciated by Community House organisations. Participants emphasised the importance of collegial support and understanding, and said that opportunities to meet together made people feel better, less isolated, and less traumatised.

Other demands affected meeting attendance

However, several tenant organisations also noted that some people did not attend the morning-tea meetings. Reasons included: that people were overwhelmed by the demands of their work and/or home situation, transport or access difficulties, and being focused on supporting each other internally (within their organisation, rather than across organisations as part of Community House). One tenant representative, who had not attended many meetings, explained:

Trying to keep [our] service going in the difficult environment probably took all our energy and time, and the [various] social things would be offered to us [by Community House management], but we just didn't actually have the energy or the space to fit it in, because everything was so complicated.

One tenant participant suggested that a formal system of regular check-ins between members of Community House could have been useful. This participant felt that while this happened to some degree informally, between colleagues on an ad-hoc basis, a formalised and regular check-in could have reduced the sense of isolation that many felt.

Another said the focus had been on Community House as a whole (e.g. collective goals, policy changes, the search for the new building), rather than on the well-being of individual tenant-organisation

workers. This person said that, in hindsight, there could have been more emphasis on the needs of workers and Community House's role in supporting the workers.

Effects of displacement on community support and well-being

Several tenant-organisation representatives said that being displaced from the Community House building reduced well-being and limited the potential for community support. Uncertainty about the building also affected the extent to which people felt supported.

Spiritual well-being

Some participants reported that community support, e.g. informal support and the regular meetings, contributed to their spiritual well-being. Several stressed the importance of opening meetings with a karakia (prayer). They said it provided reassurance and enhanced well-being.

For one participant, placing messages of hope on a memorial tree (mentioned above) was an opportunity for spiritual expression and reflection. Participants also said it was important to have quiet places in which to spend time and reflect. One said that 'walking the cordons' (around the central city red-zone) was a way to process the earthquake experience:

Certainly [there are spiritual aspects] – places where I can...go and reflect and be quiet - and that's been really important since the quakes. And I think for a lot of people...even walking the cordons [around the central city], where are the boundaries, that sort of thing, and just standing there, and looking in and reflecting, and that kind of thing has been important.

Factors that affected community resilience

Participants identified many factors that helped (or hindered) Community House's ability to adapt after the earthquakes. These factors are grouped into seven headings:

- community connectedness
- opportunities to get together
- community infrastructure and collaboration
- external support
- people's well-being
- survival skills
- extent of adversity.

Community connectedness

Before the earthquakes

All participants agreed Community House had a strong sense of community before the earthquakes, which helped it to adapt in the post-earthquake environment. A tenant-organisation representative said: 'That strong sense of community that we had prior to the quakes is what's been there for us to keep us going afterwards'. When asked for advice for other communities, this person replied:

You need to have a sense of community before the disaster...because you do get that initial surge of 'community togetherness' in the immediate aftermath when the adrenalin is still pumping – but it can dissipate...once the going gets tough, and you're getting grumpy and

irritable or stressed out. If that sense of community is fragile, then it's going to be harder to get through that bit.

According to participants, the pre-earthquake sense of community was helped by regular contact (e.g. weekly morning teas), joint meeting rooms, shared goals, and shared resources (e.g. IT and administrative systems). Continuity of staff was also raised, as reportedly, many workers had been involved in Community House for years or decades.

Most participants stressed the importance of being in a supportive community, given the nature of the social-service work of the tenant organisations. Many organisations were involved in crisis work, working with clients experiencing hardship and trauma. Workers faced multiple challenges, and often worked as part of small, potentially isolated, voluntary organisations. According to both management and tenant organisations, the Community House community helped to reduce the isolation of workers.

After the earthquakes

Participants said the building's loss had led Community House to review and clarify its shared goals (e.g. focus on client well-being, commitment to working collaboratively). This helped to strengthen and renew the collective identity and cohesion of the Community House community. For example, a tenant-organisation representative said:

I mean, it's a micro of community, our Community House, so...you have the different levels of commitment, involvement, and that's no different...than in any other community...Overall, I think everyone will still have a commitment to the Community House aims, objectives, and philosophy, for whatever reason. And...I do think every single agency does have the well-being of the greater community at heart.

Post-earthquake, a sense of community pride was maintained through external recognition that the Community House model was valuable and useful, e.g. several participants said that Community House was specified in the council's draft city plan in 2011. The manager described Community House as not just a place to work, but 'an important part of our city'.

Some tenant organisations said that the earthquake experience had given them new recognition of the value of Community House, for example:

I don't know that even the people within the House...realised how damn lucky [we] were [before the earthquakes], how fortunate we were, and are, to have such a facility [as Community House]. It was just taken for granted, I think...[We] didn't really think about what that really meant in terms of those relationships with the other agencies, and the camaraderie and the connecting up, and the easiness of it.

Benefits of working collectively

Participants noted that working as a community had benefits for tenant organisations, before and after the earthquakes. For example, retaining a collective identity helped Community House organisations to better advocate for their shared needs. Community House had a manager who could prioritise the search for new premises. One participant noted that this task was beyond the capacity of individual organisations at the time:

I mean, with the best will in the world, the organisations in the House – they didn't have the energy or the capacity to actually do any more than what they were doing. So I suspect the House would have fallen over, had it not been for that dedication of [the manager] particularly.

Discontinuation of some services

Reportedly, a few tenant organisations were unable to continue to operate, despite support from the Community House community. One participant explained:

Some groups have gone into recess because they just – like when their workplace is broken, their home is broken and they just haven't got the energy to carry on. So they've put the organisation into recess which is sad.

Opportunities to get together

According to both management and tenants, community activities helped the community to adapt, especially the tenant meetings in the early weeks after the February earthquake. They stressed the need to have dual-purpose meetings, including social support as well as business.

All participants agreed that the loss of the Community House building was a key barrier to adapting after the earthquakes. When asked for the main barrier, one tenant-representative replied:

The main thing was just the [loss of the] building,...I don't think anything should stop one from being a strong, connected community, however, in terms of delivering your service and the people who deliver those services, I think they need stability, they need a place to deliver it from in the most collective way, and that's what the Community House gave, and that's what we miss the most.

The building's loss meant a lack of meeting spaces and a reduced sense of community, because most workers worked from home, dispersed across the city. Participants emphasised the challenges of having fewer opportunities to meet face-to-face.

Community infrastructure and collaboration

Community House

Participants agreed that the pre-existence of Community House, and collaboration between the tenant organisations in Community House, was fundamental to adapting and increasing resilience. The chairperson said that the strength of Community House came from 'the base' of pre-existing networking and community 'foundation'. As noted, after the earthquakes many tenant organisations continued to work collaboratively, despite no longer being in the same building.

Participants said that tenant organisations showed a high degree of commitment to Community House. After the February earthquake, an internal survey found that almost all (97%) of the 52 tenant agencies said they wanted to continue as part of Community House, despite the loss of the building.

Wider collaboration

One participant noted that there was a rapid, coordinated social sector response after the earthquakes, from Ministry of Social Development (MSD)-funded social services. Several tenant organisations (social-service providers) in Community House were part of this response. She said:

The coordinated response from the social-service providers has been amazing...it really has been pretty good...[an inter-agency referral network of MSD-funded agencies] was already up and running, and just with very little tweaking was able to become the [earthquake counselling and support line].

Communication and information

Participants said that communication systems, which fostered ongoing collaboration between organisations, were important in increasing resilience to future adverse events, e.g. shared telephone systems and cloud computing. They emphasised the need to have good administrative systems, including off-site back-ups of client records and contents insurance.

Leadership

According to most participants, strong leadership – from the management and board of Community House – helped the community to adapt. In particular, the Community House manager was often praised for showing good leadership and dedication. Many tenant participants said both the manager and chairperson were hard-working with ‘a high degree of credibility’.

External support

Support for Community House

Participants agreed that support from external agencies, especially funders, had been significant in helping Community House to adapt after the February earthquake.

Both management and tenants reported that, since the earthquakes, there had been more official recognition of Community House, e.g. renewed support from the council and Canterbury Community Trust, and new support from other businesses.

Participants highlighted Christchurch City Council and Canterbury Earthquake Recovery Authority (CERA) in particular, in helping Community House to continue to operate as a collective, and to find new premises. One participant said:

I think...both the Government and, in this instance, the city council support worked rather well. The city council have continued to support [Community House] 100%.

Christchurch City Council agreed to a longer-term funding commitment (an additional year’s lease), which gave Community House greater financial security, and improved its ability to negotiate with potential landlords.

The manager said that CERA was instrumental in securing inter-agency funding support for Community House. It seconded a project manager (with expertise in property) to help Community House to secure a new building, assisted with developing ‘investment logic’, and helped to access experts to assist. Participants said that Community House was used as a pilot for CERA’s future funding-assistance model.

Participants also mentioned other support from external agencies, e.g. Community Probation gave Community House temporary use of an office and meeting space. Another helpful external agency was the Canterbury Earthquake Appeal Trust, which had pledged funding for the fit-out of the new building.

Support for individual tenant organisations

Some tenant organisations said that Ministry of Social Development (MSD) support had been ‘critical’ in enabling them to adapt after the earthquakes. Grants from Family and Community Services (FACS, a service of MSD) to cover staff wages and fund extra worker-hours to meet greater community needs were especially appreciated. One tenant participant commented:

MSD did a great deal, [for example] providing meeting spaces, and that was really good...There was an earthquake recovery fund or something from MSD which I think a lot of us applied to,

and in fact, those organisations in the House that weren't insured were able to refurbish their offices and equipment from that with no problems at all.⁴⁰

Networks between community and government sectors

Participants said that new, or strengthened, networks had developed since the earthquakes, especially with Christchurch City Council, and between MSD and tenant organisations, for example. Participants emphasised that, despite the loss of the building, tenant organisations were involved with many formal networks since the earthquakes, including with CERA and MSD:

There's so many different networks out there with different agencies we go to, whether it's...mental health...Healthy Christchurch...[and] CERA and MSD hold a [monthly] meeting where they let [the NGO sector] know what's going on in relation to the rebuild, and what services are available and what funding is available to help agencies. So those network meetings are going [on].

Reportedly, not all NGOs were involved in existing networks. One tenant participant gave the example of smaller, 'local responder' community groups that did not engage with the MSD/NGO network discussed above. According to this participant, these smaller NGOs appeared to be less well-informed about resources available to support their communities.

Communication between government and community

Some participants said there had sometimes been a lack of communication and transparency from local and central government agencies, especially over progress with the recovery and plans for the city's future. One participant said that it was frustrating to hear nothing from the authorities for a long time, and then to suddenly hear a 'big announcement' about decisions for the future. This participant would have preferred 'drip-feeding' of information.

People's well-being

Participants reported that the well-being of individual workers had sometimes affected the capacity of Community House to adapt as a community. Participants said that many people were dealing with earthquake-related grief and trauma. For example, a participant from a Community House tenant organisation said:

I think with the trauma of the building coming down round us, and falling around us as we were exiting, I think a lot of people were obviously in shock.

In some cases, personal and organisational challenges limited people's ability to contribute to collective efforts. As noted, some organisations did not take part in Community House meetings after the earthquakes, because of overwhelming demands, and limited time and energy.

The loss of the building meant that it was sometimes harder for workers to seek support from colleagues. One participant said:

[We've] seen lots of colleagues [from Community House] crack up, fall over, get sick, have their problems at home, [but they are] still doing their work – however, their life is in a damned mess

⁴⁰ The Family and Community Services division of MSD hired Christchurch Netball Centre for nine months as its office space, and offered free meeting space there for community organisations and networks. A Community Recovery Fund was established by MSD to help meet the needs of community organisations and clients including grassroots groups.

and...[without the building] they don't have that easiness of being able to walk in and out of each other's office, and say: 'How are you going mate?'

Survival skills

Pre-existing survival skills reportedly helped Community House workers to adapt. Most participants said they were used to coping with challenges and working with people in hardship. One tenant representative said: 'So many of us are dealing with, you know, the rough end of life for people...things do get tough, and you have to find a way to carry on'.

The lack of meeting-spaces meant that workers had to become more flexible in their work practices, for example, one tenant organisation talked about meeting a client at McDonalds.

Several workers said they felt inspired and supported by seeing how well their clients coped with earthquake-related hardship. When asked what had helped the community to adapt, one said:

I think for me personally, it's the people we work with. I mean, they are ultra-vulnerable and they're [coping] in those situations. We get our strength from the guys that we work with...being able to support them, and they support us as well.

This participant described the earthquake as a 'leveller', as workers and clients could relate to each other through the shared hardship and displacement from the earthquakes.

Extent of adversity

Continuing challenges with work costs and travel

As noted, workers reported they had to work from home, colleagues' homes, or in temporary offices. Sixteen months after the earthquake, many were still working from kitchen tables or garages. After the loss of the building, more travel was required to achieve work goals (e.g. to travel for work meetings or to see clients). Tenant participants noted this was unpaid time, and took them away from core work, which had to be made up elsewhere in the day. With many roads still closed or under repair, travel times had increased and routes constantly changed, which required planning and adaptation. They also reported an increase in outreach work after the earthquakes, because clients were reluctant to travel.

Many tenant-organisation representatives said that the loss of the Community House building impacted financially on their organisation. Some were now faced with market rent for temporary office space, and greater travel costs, whereas they had previously paid subsidised rent (as a tenant of Community House). One participant commented:

It's been a real struggle with[out] Community House, because where it was costing us \$300 a month for power, our room, our photocopying, our office supplies and everything [before the quake], now it's probably costing us double that just for petrol alone. So the costs have really gone sky-high since we've been out of Community House.

One participant said their organisation could not function for several months after the earthquakes, because: 'I had to bring the money in first, and then we had to get our insurance paid out and [get] some grants so that we could actually set up and establish, having lost everything'.

Access to housing and social support

Many Community House participants expressed concern about the displacement of low-income people since the earthquakes, and reduced affordability of accommodation.

Reduced access to social support services for clients, because of the loss of the building, was also emphasised by participants. With workers dispersed, it was harder for clients to negotiate travel to find a different service.

Summary

Community responses

Community House participants reported that the main community support was regular morning-tea gatherings and anniversary events. Informal social support between colleagues also occurred in the post-quake environment.

Effects of community support on well-being

Opportunities to meet regularly benefited people's reported well-being. Informal social support was important and valued. Participants highlighted that community meetings helped reduce social isolation and provided collegial support in dealing with earthquake-related challenges. On the other hand, several tenant organisations reported that some workers had not attended because of workload and transport problems.

Factors that affected community resilience

Participants agreed the pre-existing sense of community and community connectedness greatly helped the community's ability to adapt. After the earthquakes, opportunities to get together and informal support helped to retain some sense of community, even without a building. Still, a sense of isolation was a reported problem for some people.

Participants emphasised that shared goals and values, as well as collective work practices and networking, had helped the community to adapt. They agreed that good leadership from the Community House management, and support from the Christchurch City Council and CERA, also helped significantly.

More negatively, the loss of the building meant that workers were dispersed and often working in unsatisfactory working conditions. Participants emphasised that the greater needs of clients post-earthquake, and the challenges of operating in isolation, had added to the workloads and stress of workers.

Conclusion

Although the challenges were significant, especially the displacement and isolation of workers, participants agreed that community connectedness had been vital. They anticipated that the sense of community would strengthen on moving into the new Community House workspace in late 2012.

Appendix 7: Research question schedule

Note: This question schedule was used for focus groups with community leaders. The schedule was adapted for the Māori-specific focus groups, interviews with residents, and interviews with displaced people.

Part 1: Community support and local responses

1. In the early response to the earthquakes [Feb/March 2011 especially], how did your community help or support each other?

Prompts: Who was important in helping you in the first few days and weeks after the major quakes? Did people know their neighbours before the earthquakes?

2. Thinking about the past year, how is your community supporting each other as time has passed?
3. What new community initiatives have emerged?

Prompts: Who is leading? Who is taking part? Why was the community action or support started? What are the aims? What's been the role of cultural organisations like marae or iwi? What about spiritual or religious organisations?

Part 2: Changes in the community

4. How has your community changed after the earthquakes?

Prompts: Do people have less trust, or more trust, in others in the community? Is there more or less sense of community? Have feelings of attachment to this community changed? In what way?

Are there any good things that have come out of the earthquake response for your community? What are they?

How has your community been affected by people leaving?

5. A year or so on, how do you feel your community is coping?

Prompts: Does your community feel effective and empowered? Why/why not? Does your community have a sense of control over its own future? (can you help change things, make own decisions etc.)

Part 3: Links between community support and people's well-being

6. Thinking about the local community support that we've been talking about, how has this support affected local people's well-being?

Prompts: How have community actions affected *your* well-being? How have community actions affected your sense of control?

7. Spirituality and religion may be different things for some people. Have spiritual or religious beliefs and practices been part of the recovery? In what way?

Part 4: Enablers and barriers to community resilience – what helped and hindered?

8. What does a 'strong, supportive, resilient community' mean to you?

[Intro to final Qs: In light of your views on what a resilient community is, I'm now going to ask you to tell us the main things that have helped, and hindered, your community to be resilient].

9. What's helped your community to cope well in the recovery?

Prompts: What did the community already have (BEFORE the earthquakes) that helped your community to cope well? Can you agree on the most important thing that helped?

In the past year, has there been any support from OUTSIDE your community that helped the community to be supportive or strong?

Has spiritual or religious support helped? If so, how?

10. What made it harder to cope, and to be a strong or supportive community?

Prompts: What's got in the way of your community supporting each other? – at first? As the months have gone by?

Can you agree on the most important barrier?

11. How have places like government agencies or businesses influenced how your community has coped?

Prompts: How much trust does your community have in the city council? Government agencies?

How could places like the council or government have better supported your community?

12. What advice would you give to other communities about coping well as a community in a disaster?