

4. Executive Summary

4.1 Introduction

Jon Mitchell, Manager, Regional Emergency Management Office, Canterbury requested Opinions Market Research Ltd (Opinions) complete this exercise:

- § To inform the development of a work programme for all agencies in Canterbury involved with emergency management by providing a measure of people's disaster preparedness and the extent to which people would be able to cope and recover i.e. their resilience if there was a serious emergency event right now.
- § To repeat the 2009 Cantabrians Attitude and Behaviour Monitor for Canterbury, including Christchurch City.
- § To compare the findings with the 2009 Biennial Residents Attitude and Behaviour Monitor and the post 4th September 2010 Research.
- § To bridge the findings with the 2011 National Ministry of Civil Defence & Emergency Management Campaign Monitoring Research. Note, this research excluded Christchurch in 2011.

This exercise was completed over the telephone 2nd September – 2nd October 2011 with a representative sample, in terms of age, gender and location, of 850 Cantabrians.

4.2 Context

This research was undertaken one year after a 7.1 magnitude earthquake in Canterbury on the 4th September 2010, followed by a 6.3 magnitude earthquake on the 22nd February 2011 and another of the same magnitude on the 13th June 2011, and more than 5,000 aftershocks. There was also a snow event in Canterbury in mid August, prior to the fieldwork period.

In May 2011, in the City of Albany in Auckland, there was a tornado and in November 2010 the Pike River Mine Disaster occurred.

Other recent international events include; the volcanic eruptions in Iceland (May 2011) and Chile (June 2011), the floods in Mississippi (May 2011), the earthquake and tsunami in Japan (March 2011), cyclone Yasi in Queensland (February 2011) and the floods in Queensland (December 2010/January 2011).

4.3 Perception of Possible Major Disasters in Canterbury in Lifetime and of Most/Secondary Concern

For Cantabrians in their lifetime, earthquakes were perceived to be the most likely event. This was the case in both the Canterbury 2009 and 2011 surveys.

In 2011, among participants, an earthquake remained the disaster perceived as most likely to occur during their lifetime (97% in 2011 vs. 94% in 2009). The second most commonly mentioned disaster in 2011 was a tsunami (61% in 2011 vs. 49% in 2009) followed by flooding (48% in 2011 vs. 63% in 2009), a storm or hurricane (26% in 2011 vs. 24% in 2011), fire (16% in 2011 vs. 22% in 2009) and snow (16% in 2011 vs. 14% in 2009).

Of note, there has been a switch in the second most likely event between 2009 and 2011 with tsunamis replacing flooding in 2011.

As could be expected, perceptions of the likelihood of different events varied by geographic location within Canterbury.

Life stage was identified to be a more defining factor than age in relation to the 2011 findings. In terms of the events of most concern, earthquakes were the event of most concern for Christchurch residents across all life stage groups. However, outside of Christchurch in other parts of Canterbury, younger people with no children were less concerned about earthquakes (43% mentioned earthquakes as the event they are more concerned about compared with 89% of people with dependent children).

4.4 Impact of the Events since September 4th 2010

In September 2011, only 4% of Cantabrians stated they had not been affected in some way by events since September 4th 2010.

Many in Christchurch in particular, but also in Canterbury, had close friends, colleagues or family who had left the area or who had health issues. Approximately a seventh had lost a close friend, colleague or family member as a result of the earthquakes. Furthermore, approximately a fifth in Canterbury and a quarter in Christchurch claimed to personally have health issues as a result of the earthquakes.

Interestingly, 65% of Cantabrians interviewed claimed to live in a community affected by the earthquakes compared with 67% in Christchurch.

Overall, around three quarters of Cantabrians have had damage to their home and two thirds damage to contents. Christchurch residents were the most likely to have been affected with 83% having had damage to their home and also to their contents.

Differences by life stage group were identified in terms of the impact of events since the 4th September 2010:

- A greater proportion of people with dependents claimed to have damage to their homes and for the community where they live to have been affected (compared to those who have no dependent children), especially in Christchurch.
- More younger people with no dependents (than people with dependents or empty nesters) claimed people they knew had left the area and the transport they used was more likely to have been affected, especially in Christchurch.
- The mature empty nesters with no dependent children were more likely to claim to have personal health issues, followed by those with dependent children.

Females were more likely to claim to live in a community that has been affected and to have close friends, colleagues or family members who have health issues or to have health issues themselves.

4.5 Involvement in Activities Helping Others

Almost all Cantabrians had been involved in an activity that helped others in the last year, in particular those living in Christchurch or in the districts surrounding Christchurch. Some 70% (78% in Christchurch) had helped friends and family with damage, 50% had donated food, 49% had donated money and 42% had donated services.

In terms of helping in the community, over a quarter had helped in the community as part of a community group and almost half had helped in the community without necessarily being part of a community group.

Since the 4th September 2010 earthquake it was identified that Cantabrians have been helping others in different ways depending on their life stage:

- Younger people with no dependent children have been more likely to have helped out more with damage in the community
- People with dependent children have been more likely to have donated food
- And, empty nesters with no dependent children have been most likely to donate money.

These life stage differences indicate that a community with a cross section of life stage groups is possibly more resilient.

4.6 Preparedness for a Disaster

Overall, 93% of Cantabrians felt 'a lot' or 'a little' better prepared for a disaster at the time of the September 2011 survey, compared with before the 4th September 2010. Their reasons for feeling more prepared revolved around having food, water and survival kits prepared and having better plans in place or having planned for an emergency.

The proportion who felt 'a lot' better prepared was especially high in Christchurch.

Levels of preparedness have increased significantly since 2009, most markedly in Christchurch followed by Canterbury. There was an increase nationally, although this increase was less pronounced.

No significant differences in preparedness pre and post 4th September 2010 were identified among the demographic subgroups; participants in general were identified to be more prepared. Those with dependent children were more likely to now be 'a lot better prepared' than those without dependent children.

In September 2011 in terms of level of preparedness, Cantabrians were identified to be most to least prepared in terms of:

- Having the necessary emergency items to survive a disaster (95% in 2011 versus 87% in 2009)
- Having a good understanding of the effects if a disaster struck in your area (93% in 2011 versus 82% in 2009)

- Having a good understanding of the types of disaster that could occur in New Zealand and the chances of them occurring (92% in 2011 and in 2009)
- Having a battery operated radio (88% in 2011)
- Being familiar with the Civil Defence information in the Yellow Pages (84% in 2011 versus 82% in 2009)
- Having a phone at home that does not rely on electricity (81% in 2011)
- Having planned within their household for what they will do in an emergency that occurs when they are at home (78% in 2011 versus 48% in 2009)
- Regularly updating emergency survival items (68% in 2011 versus 51% in 2009)
- Having stored 3 litres of water per day for 3 days for each person in their household (79% in 2011 versus 47% in 2009)
- Those who have a cell phone, having access to a car charger for your cell phone (61% in 2011)
- Having a getaway kit (56% in 2011)
- Having planned within their household for what they will do in an emergency that occurs when they are away from home (51% in 2011)
- Having an electricity generator at your home (16% in 2011)
- Attending meetings with community groups about disaster planning (12% in 2011 and 9% in 2009).

By comparison, the proportion who were prepared in each of the above respects (where measured) nationally in the National Civil Defence Survey 2011 were lower by approximately 10% or more than in Canterbury.

Since 2009 in Canterbury, the greatest increases in preparedness have occurred, in descending order, in relation to:

- Having planned within their household for what they will do in an emergency that occurs when they are at home (78% in 2011 versus 48% in 2009)
- Having stored 3 litres of water per day for 3 days for each person in their household (79% in 2011 versus 47% in 2009)
- Regularly updating emergency survival items (68% in 2011 versus 51% in 2009)
- Having a good understanding of effects if a disaster struck in your area (93% in 2011 versus 82% in 2009)

- Having the necessary emergency items needed to survive a disaster (95% in 2011 versus 87% in 2009)
- Attending meetings with community groups about disaster planning (12% in 2011 and 9% in 2009).
- Being familiar with the Civil Defence information in the Yellow Pages (84% in 2011 versus 82% in 2009)
- Having a good understanding of the types of disaster that could occur in New Zealand and the chances of them occurring (92% in 2011 and in 2009)

In relation to how well prepared people are, a greater proportion of younger people without children (compared to those with dependent children and empty nesters) claimed to be not very well prepared, especially those in Christchurch. This finding is consistent with that of earlier surveys.

People living with dependent children were more prepared in terms of having a plan as a household in case there is a disaster, either at home or away from home.

Nearly all in 2009 and 2011 claimed they had sufficient food for three days. In 2011 the proportion able to cook with no electricity has increased marginally to 89%. Most markedly changing since 2009 was the proportion who had stored water, this proportion has increased from 49% in 2009 to 79% in Canterbury and 80% in Christchurch in 2011.

4.7 Importance of Being Prepared for a Disaster and Preparedness

The importance of being prepared for a disaster (100%) was rated higher in 2011 than in 2009 (95%).

Interestingly, during the same period of time the National Civil Defence Survey did not produce any increase in the importance of being prepared; 95% in 2009 and 96% in 2011.

In both Canterbury and Christchurch, in terms of actual level of preparedness, the proportion rating preparedness as 'very important' has increased significantly since 2009. This increase is not present in the national findings.

The importance of being prepared for a disaster was rated more highly by females than males.

4.8 Ability to Cope if Disaster Occurs in Most Extreme Form Likely in Canterbury (Households, Communities and Workplaces)

Cantabrians' perceptions of their households' ability to cope varied by type of disaster.

Perceived ability to cope was highest for earthquakes (91% cope very or quite well) and snow (90% cope very or quite well).

Low levels of coping (approximately two thirds or less would cope very or quite well) were perceived in relation to storms, flooding, fire and tsunamis.

In terms of the ability of the local community to cope, perception was that their local community would cope a little less well than their household in relation to most events.

Compared to 2009 results, Cantabrians believed their local community would cope better in particular with an earthquake (87% would cope very or quite well in 2011 versus 64% in 2009) and a tsunami (48% would cope very or quite well in 2011 versus 32% in 2009).

Workplaces on the other hand were perceived differently to households. Compared with households, participants perceived that workplaces would cope better with fire and earthquakes and cope less well with snow and tsunamis. Overall, workplaces were perceived to cope most well with fire (90% would cope very or quite well), followed by an earthquake (84% would cope very or quite well), flooding and snow (80% would cope very or quite well) and at a lower level a storm or tsunami (at 66% and 65% respectively coping very or quite well). Males were more likely than females to think nothing can be done to enable workplaces to cope better.

Perceptions as to how households would cope with the emergency event of most concern to them were similar across the demographic subgroups. However, when asking what could be done to enable households to cope better, a greater proportion of young people without children mentioned the need to have a survival kit, to store more food and water in order to cope with emergency events. This was a reflection of the fact that they were generally less well prepared.

At an overall level, there was some variation in perceived levels of coping and with different types of event across different parts of Canterbury.

4.9 Actions Required to Raise Ability to Cope

Participants were asked to provide insight into aspects that would improve the coping ability of households, the local community and workplaces.

Several common themes were identified these focused around the following:

- Nothing can be done – this ‘disempowered’ position was held by approximately a third of participants in relation to their household and local community, and approximately half in relation to workplaces. Of note, whilst some of these participants considered themselves to be ‘very well’ prepared, many only considered themselves to be ‘quite well’ prepared.
- Other common themes for households coping better was being better prepared e.g. having water, food and survival kits and having better planned.

Common themes for the local community were more fragmented; particularly of note was the shift in responses between the 2009 survey and the 2011 survey. These shifts in response appear across both the Canterbury wide findings, and even more markedly, those for Christchurch. In 2011, in Canterbury and Christchurch specifically, there was a stronger emphasis on:

- There being nothing that can be done to prepare (e.g. in 2009 in Christchurch 8% versus 34% in 2011)

- Community spirit/ getting to know others, neighbours etc (e.g. in 2009 in Christchurch 12% versus 17% in 2011)
- Community meetings/ community groups (e.g. in 2009 in Christchurch 9% versus 16% in 2011).

And, of note in terms of dropping in popularity as a means of raising 'coping' ability was:

- Information packs/ flyers (e.g. in 2009 in Christchurch 11% versus 4% in 2011)
- More/ better education (e.g. in 2009 in Christchurch 10% versus 2% in 2011)
- More awareness (e.g. in 2009 in Christchurch 7% versus 2% in 2011).

In relation to workplaces, as already stated some 60% across Canterbury and 64% in Christchurch claimed nothing could be done to enable workplaces to cope better. The only other theme to emerge mentioned by more than 10% was better planning (16% in Canterbury and 14% in Christchurch).

4.10 Attitudes towards Disasters

The results were consistent across the 2009 and 2011 national and Canterbury surveys in terms of nearly all (97%) considering it to be their responsibility to look after themselves and their family.

Equally there were also high expectations that there would be someone there to help (82%) and that emergency services would be there to help (77%) in the Canterbury 2011 survey.

In the 2011 national survey, the proportion (74%) who expected someone else to be there to help was approximately the same as 2009 (76%) and reflected the 2009 Canterbury findings (74%).

In 2011, Cantabrians were more likely to agree that there will be someone there to help them in the event of a disaster (74% in 2009 and 82% in 2011) but expectations around receiving help from emergency services remained the same (76% in 2009 and 77% in 2011).

Those with dependent children have lower expectations of receiving help from other people or groups than younger people with no dependent children.

In the national surveys 2009 and 2011, and also the Canterbury surveys 2009 and 2011, approximately three quarters expected emergency services to be there to help.

There were higher expectations of there being adequate warning in the 2011 national survey (28%) than the Canterbury survey (18%), however the proportion expecting there to be adequate warning was lower in both 2011 surveys compared with 2009.

Many considered there would **not** be adequate warning before a disaster (81%). This proportion has increased significantly since 2009 (57%).

4.11 Availability of Food, Cooking Facilities, Water for at Least Next Three Days

Almost all Cantabrians (99%) claimed to have enough food to last for at least the next three days, this result has been consistent since 2004.

Similar to the results in 2009 (86%), 89% had cooking facilities not requiring electricity.

There was a large increase of the proportion of Cantabrians who claimed to have enough water for the next three days, from 49% in 2009 to 79% in 2011.

4.12 Expectations of Receiving Help After a Disaster

In terms of who participants expected help from in a disaster it was identified that:

- Other members of their household, family and neighbours featured highly and were also expected to be fairly immediately available.

The following groups were largely expected to be available, however the length of expected wait varied:

- Others in the community and the emergency services (ambulance, fire service, police and hospitals) were also generally expected to be available immediately or at least within three days.
- Availability of Civil Defence, USAR and the Army followed closely behind the emergency services in terms of length of time before available.
- And, after a longer wait again, others from outside the community such as the FARMY Army, Student Army, Rangiora Express.
- Government agencies (Local Council, Regional Council, EQC, WINZ, Ministry of Social Development, CERA) were not expected to generally be available immediately or within 3 days and some did not expect them to be available or required at all.

4.13 Overall State of Preparation – Summary of Findings across Surveys 2009 - 2011

	*National Civil Defence %		Total Canterbury (including Christchurch) %		Christchurch %		Canterbury (excluding Christchurch) %		North Canterbury %		Central Canterbury %		South Canterbury %	
	2009	2011	2009	2011	2009	2011	2009	2011	2009	2011	2009	2011	2009	2011
FULLY PREPARED <i>Have water and survival items**</i>														
<i>Plan (including what to do when not at home)***</i>	11*	18*	11	34***	9	39***	13	29***	13	36***	15	19***	12	34***
COMMITMENT Have water and survival items	41*	49*	44	76	41	78	49	75	54	80	52	73	41	72
UNDERSTANDING Have a good understanding of the effects if disaster struck	80*	84*	82	93	80	95	87	91	87	90	87	93	86	90
AWARENESS Have an understanding of the types of disasters that could occur	81*	82*	92	92	92	95	92	91	97	90	92	93	87	89
UNAWARE No knowledge what disasters could occur	19*	18*	8	8	9	5	8	9	3	10	8	7	13	11
Base: N=	1 000*	1 164*	w: 850	w: 850	400	400	w: 450	w: 450	150	150	150	150	150	150

* Data: National Civil De-fence Survey – Colmar Brunton 2009-2011. (In 2011 only 33 people in Canterbury were interviewed, Christchurch was excluded)

** Statements as defined in the Opinions Monitor July 2009 and Opinions Monitor September 2011

*** In the 2011 Opinions Monitor, the variable ‘you have a plan within your household for an emergency that occurs when you are away from home’ vs. 2009: ‘you have a survival plan within your household’

4.13 Overall State of Preparation – Summary of Findings across Surveys 2009 - 2011 Continued

	*National Civil Defence %		Total Canterbury (including Christchurch) %		Christchurch %		Canterbury (excluding Christchurch) %		North Canterbury %		Central Canterbury %		South Canterbury %	
	2009	2011	2009	2011	2009	2011	2009	2011	2009	2011	2009	2011	2009	2011
Importance of Being Prepared (very/quite important)	95*	96*	95	99	95	100	95	99	94	100	94	98	95	98
Level of Preparedness for Disaster (quite /very well prepared)	50*	60*	64	89	61	90	68	88	65	93	68	89	71	81
<i>Gap in level of preparation versus importance of being prepared</i>	45*	36*	31	10	34	10	27	11	29	7	26	9	24	17
Have Food For at Last 3 Days**	-	-	95	99	95	99	97	99	96	99	99	100	97	98
Have Water For at Least 3 Days**	-	-	49	79	46	80	58	78	58	82	63	76	68	77
Have Cooking Facilities For at Least 3 Days**	-	-	86	89	83	88	91	92	91	93	90	93	91	91
Ability of Local Community to Cope with a Major Disaster** (quite/ very well)	-	-	59	81	52	82	72	78	63	72	75	87	77	75
Base: N=	1 000*	1 164*	w: 850	w: 850	400	400	w: 450	w: 450	150	150	150	150	150	150

* Data: National Civil Defence Survey – Colmar Brunton 2009-2011. (In 2011 only 33 people in Canterbury were interviewed, Christchurch was excluded)

4.14 Conclusions

Since 4th September 2010, approximately three quarters of Cantabrians participating in the survey had experienced damage to their home (83% in Christchurch) and approximately two thirds to contents (83% in Christchurch). Approximately two thirds claimed the community in which they live had been affected (67% in Christchurch). Over a third had close friends, colleagues or family members who had left the area (54% in Christchurch) and who were suffering from health issues (44% in Christchurch), had disruption to their work (48% in Christchurch) or child's school or education institute (40% in Christchurch). And, just over a quarter had had disruption to the transport they use (37% in Christchurch). Approximately a fifth in Canterbury claimed to personally have health issues (24% in Christchurch) and approximately a seventh had lost a close friend, colleague or family member (17% in Christchurch).

The situation was magnified in Christchurch; the proportions are included in brackets above.

In terms of participating by helping since 4th September 2010, it was identified that most Cantabrians, and in particular Christchurch residents, had helped family and friends with damage and had helped with damage in the community either as part of a community group or just as an individual. Approximately a quarter had helped with damage at work and approximately half had made a donation of services or money or food. Less than 10% had not assisted in some way or other. These findings indicate how the local and wider Canterbury community have worked together helping and supporting each other since 4th September 2010. These findings demonstrate and emphasise the importance of community in terms of help and resource in a disaster situation.

Perceptions of possible major disasters in Canterbury within a participants lifetime indicate that experience of a specific type of disaster raises perception of future likelihood. Examples of this include the increase in perceived likelihood of earthquakes and tsunamis in Canterbury and, from the national survey, of storms/ hurricanes. Conversely, in Canterbury, since 2009 there has been a fall in the perceived likelihood of flooding and pandemics.

The ability of households and workplaces to 'cope' with possible lifetime disasters was perceived to be higher for those types of event recently experienced e.g. earthquakes and snow. This finding indicates the occurrence of disaster events results in increased levels of preparedness both physically, in terms of preparation, but also psychologically in relation to learning from the experience and also planning for future events and this possibly results in higher levels of 'resilience'.

However, actions identified by participants to enable households, communities and workplaces to 'cope' better indicate that a significant proportion of Cantabrians presently feel 'disempowered'. Some 36% claimed there was nothing they could do to help their household cope better, 30% their local community and 60% their workplace. It is believed this 'disempowerment' is related at least in part to an expectation of handing over responsibility for resolution to government agencies after the initial response phase of the emergency. However, this aspect requires further exploratory research to fully understand the drivers as to why participants hold this view.

On a more positive note, beyond those who felt disempowered, the main themes to emerge to improve coping ability were around preparedness and planning at home, community connectedness in relation to the local community and planning in relation to workplaces.

Interestingly, in 2009 the most mentioned actions to enable communities to cope were information and education i.e. being informed. In 2011, however, 'community interaction' was the most mentioned action in Canterbury (including Christchurch) that would raise the ability to cope i.e. possibly being 'empowered' and 'connected'.

These findings indicate that the dissemination of information alone has been identified in Canterbury to be insufficient as an emergency event preparation tool. Instead it appears that community 'connectedness' is important, not in terms of the existing groups per se, but in relation to raising community resilience, resource and empowerment.

In 2009, there were already high levels of recognition of the importance of being prepared for a disaster. However, this level increased in Canterbury in 2011 but changed by little nationally.

Compared with 2009, in 2011, levels of preparedness for a disaster showed a marked increase in Canterbury, especially in Christchurch and North Canterbury. This increase in preparedness was less prevalent in the 2011 national survey findings.

Furthermore in Canterbury, measurement of importance versus preparedness indicates a closing of the gap between preparedness and importance i.e. an increase in preparedness relative to importance in 2011 in Christchurch in particular.

When asked specifically about their level of preparedness compared with prior to 4th September 2010, nearly all Cantabrians were better prepared, approximately half were 'a lot' better prepared, and in Christchurch, almost two thirds were 'a lot' better prepared.

In Canterbury in 2011 there is a marked increase in the proportion storing water and a slight improvement in those who have cooking facilities that do not require electricity. There was also an increase in those regularly updating their survival kits.

There was an expectation that someone would be there to help you in a disaster. The proportion in Canterbury, in particular Christchurch, who holds this belief, has increased since 2009. This increase was not reflected in the national survey results. Research in Christchurch conducted in July 2009, September 2010 and September 2011 indicates that there was an increase in belief that 'there would be someone there to help you' between 2009 and September 2010 and that this higher level of belief still exists in September 2011.

In relation to who will be there to help you in a disaster, it has been identified from the 2011 findings that it is help/ support from within your community i.e. those from within the community who will be there to help/ support. It is therefore, the communities and those within the community that need to be resourced to help and support others around them.

In 2009, there was a high level of agreement that it is the individuals' responsibility to look after themselves and their family in a disaster, this remains the perception in 2011 both nationally and within Canterbury, and more specifically Christchurch.

Perceptions of emergency services being available to help you in a disaster have remained static since 2009, both nationally and within Canterbury and more specifically Christchurch.

Perceptions of there being adequate warning before a disaster have shifted significantly both nationally and especially within Canterbury. Overall, there is wide realisation that there may not be adequate warning. Research in Christchurch conducted in July 2009, September 2010 and September 2011 indicates that there was a shift in belief that there would be adequate warning between 2009 and September 2010 and that this belief still at the lower level exists in September 2011.

Overall Cantabrians expect to receive help from others after a disaster. Firstly the expectation is of help immediately/ within a short time frame from others around them; other members of their household, family and friends that are not living with them, neighbours, others within their community).

This expectation of help extends to assistance by the emergency services either immediately or within a few days; ambulance, hospitals, fire service, police, USAR and the army.

Assistance from government agencies (local or regional council, EQC, Ministry of Social Development and WINZ) is generally expected over a more extended time frame, if at all.

These findings indicate that there is an expectation of having to look after each other short term as a family, neighbour or community unit but, slightly longer term, others from outside the community; the emergency services followed by the government agencies will take control and manage the situation.

These results also indicate there is value to be gained, locally and regionally in particular, for Civil Defence Emergency Management to utilise recently occurring disasters as a catalyst for encouraging community preparedness and planning and ultimately to build community resilience.

These findings demonstrate greater recognition within the community of the need for individuals, communities and workplaces to be connected, to prepare and also plan for disasters.

At the same time, it demonstrates the requirement for direction to be provided to guide individuals, communities and workplaces in emergency event preparation and planning but to allow individuals, communities and workplaces to own the process, preparation and planning.

The findings also indicate that there is an expectation of the need to 'cope' short term as an individual, a family or neighbour and as a local community but then there is a possible expectation that the emergency services and longer term, the wider government organisations will step in, take control and resolve issues.

Overall, it appears that community connectedness and the resourcing of individuals, communities and workplaces are key aspects associated with 'resilience'. It appears that it would be most beneficial for government agencies, across the different stages of the response and recovery process, to engage and provide guidance and resource but at the same time to empower individuals, communities and workplaces to retain ownership.