

Emergency Preparedness/Awareness

Survey and Focus Group

Taranaki Regional Council

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Executive summary

This report sets out the findings of a survey into public awareness of and readiness for civil emergencies in Taranaki. The survey was conducted by the Taranaki Civil Defence and Emergency Management Group in January 2010. The survey methodology was based on a phone (randomised calling by the survey team) and Internet (self-motivated) questionnaire, followed by a focus group where questions relating to the questionnaire were discussed at length.

The aim of this investigation was to determine how prepared the Taranaki region is in the event of a Civil Defence Emergency Management disaster, and as far as practicable to quantify this readiness.

The survey was limited by its nature, in the range of questions that could be asked within a short timeframe, and in probing reasons behind responses. Therefore interpretation must remain tentative.

On the whole the Taranaki region is well prepared in comparison with the national statistics, where comparison can be drawn. On the other hand, there are some areas of concern that basic awareness in some matters is lacking, and even when a large percentage of the population are prepared or have a good understanding, there remains a sizeable number still to be reached.

In terms of some of the specific findings:-

Taranaki residents will rely more on their neighbours, friends and families to help get them through a disaster than on the emergency services, but many still expect other agencies will be available to give them assistance. Nationally, a much higher proportion of people are relying on the emergency services and other, non-emergency services to be there to help than do the Taranaki residents. Nationally, more people think there will always be an adequate warning before a disaster strikes than do Taranaki residents. Slightly more Taranaki residents think it is their responsibility to look after themselves and their family, than the national average.

In Taranaki citizens are most aware of volcanic eruptions, earthquakes and storms/cyclones and tornadoes, as hazards that may affect the region. There is an extremely low awareness of the potential for a human health pandemic or animal disease outbreak to affect the region. Taranaki as a regional community is far more concerned with the natural disasters, as distinct to the pandemics and human induced disasters.

There is a far higher recall regionally than nationally, of civil defence presentations and educational activities, and the Taranaki CDEM Group seemed to have a high level of recognition as a source of education and advice before and during an emergency (but noting that the survey was conducted by people who first identified themselves as being from CDEM, which would have affected answers).

Respondents indicated they are likely to leave the area or move to a safe place in the event of a disaster. The answers to questions about individual responses to a disaster indicated that most still would react instinctively rather than on the basis of what they have been advised to do through civil defence messages.

Taranaki citizens appreciate that electricity, water and land line telephones will be affected in a disaster. However, responses indicate that there is a low awareness of how inter-dependent many services and utilities are.

Residents appreciate it is very important to be prepared for a disaster, while only 10% of the region confess to being fully prepared. Most people can readily identify a number of items within their households that would be of use during an emergency- more than in nation-wide surveys. However, the number of residents with a survival plan is below the national average.

The people surveyed are more aware of the Yellow Pages as a source of information than of Internet websites, such as the 'get ready get thru' site.

The survey report concludes with a series of recommendations on how Taranaki Civil Defence and Emergency Management can improve the current public education programme and content. The Civil Defence Emergency Management Group Plan for Taranaki is currently being reviewed, and it is expected that the recommendations will be carried forward through that process for implementation.

Acknowledgements:

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1. Introduction

1.1 Background

The Taranaki Emergency Management Office (TEMO) conducts a public survey every five years on behalf of the Taranaki Civil Defence Emergency Management Group to see how aware and how prepared the people of the Taranaki region are in the event of a disaster. This survey is primarily intended to establish a benchmark by which changes in community awareness and readiness over time can be monitored. In addition, the survey allows a comparison between Taranaki and national surveys.

The 2009-2010 Annual Business Plan for the Taranaki CDEM Group included an undertaking to 'survey public awareness and readiness' as an action item under the goal 'To increase community awareness, understanding and participation in civil defence emergency management'.

1.2 Purpose

The purpose of this survey is to give understanding of how well prepared Taranaki people are in the event of a disaster and to draw comparisons with both the 2005 Taranaki survey and also the latest Ministry of Civil Defence and Emergency Management (MCDEM) annual survey. This survey has a two pronged approach; not only does it gather results from respondents but also aims to educate them through the survey. Furthermore, this report forms part of the Taranaki Regional Council State of the Environment Monitoring (SEM).

1.3 Objective

This survey is designed to determine the current state of civil defence emergency management awareness in comparison to the 2005 survey and the latest MCDEM survey.

1.4 Methodology

This survey was undertaken from the TEMO headquarters at 45 Robe Street in New Plymouth. Although the number of surveyors at any one time fluctuated, it utilised 3-7 students for the period from 11 January 2010 until 18 January 2010.

The survey was undertaken through two media. The first, which gave the vast majority of results, was a phone survey; the second was an internet based survey. When combined these produced 710 responses to the questionnaire.

Later, a focus group was set up of 5 participants to discuss ideas and areas which the survey was not able to cover.

The Taranaki region has a total population of 104,277 people (Statistics New Zealand, 2006); therefore it is important to ensure a strong sample size to create a small margin of error and a high confidence level. This is explained further in section 4 and 5 of this report.

1.5 Abbreviations and definitions

SEM: State of the Environment Monitoring

MCDEM: Ministry of Civil Defence and Emergency Management

CDEM: Civil Defence and Emergency Management

TEMO: Taranaki Emergency Management Office

SoE: State of Emergency

National survey: the Ministry of Civil Defence and Emergency Management survey, conducted annually to assess the level of preparedness the nation has.

2. Survey design

2.1 Sampling

To have validity, a respondent to a survey must be selected in a random fashion. This means the people selected for the phone survey would not have a particular bias. In order to achieve this, participants were randomly selected from the districts of New Plymouth, Stratford and South Taranaki. The total population of the Taranaki region is: 104,277 as at census night 2006. The region has 44,175 homes of which 40,461 are privately owned. The population statistical breakdown of the region's three districts is as follows:

New Plymouth: 68,901
 South Taranaki: 26,487
 Stratford: 8,889

It was important to have a statistically sound sample from these areas of the region. This meant that the proportions of households to be selected in the region was split in the following manner:

Stratford: 50 households
 New Plymouth: 495
 South Taranaki: 165

In order to create a representative sample, a total of 710 people were surveyed. This gave a margin of error of $\pm 3.67\%$, at a 95% confidence level. This is seen to be an acceptable margin of error for any given poll. Based on the size of the sample and the respondents who assisted in the survey it is fair to say that this will be a fair indication of how prepared the region's citizens are.

It is also important that the sampling method was conducted in a manner that people were called without any prejudice or bias (Bryman 2004; McLafferty 2003). To resolve this issue, surveyors called every 10th person in the phonebook.

2.2 Formulae

The formulae required in working out the confidence level, margin of error and sample sizes are listed below.

Margin of error at 95% confidence level: $1.29/\sqrt{n}$

Effect of population size: $\sqrt{(N-Z)/(N-1)}$

Margin of error: $\sqrt{(P(1-P)/n)} \times 1.29$

Confidence level: assume a population mean of 50 with a standard deviation of 10.

2.3 Graphed population

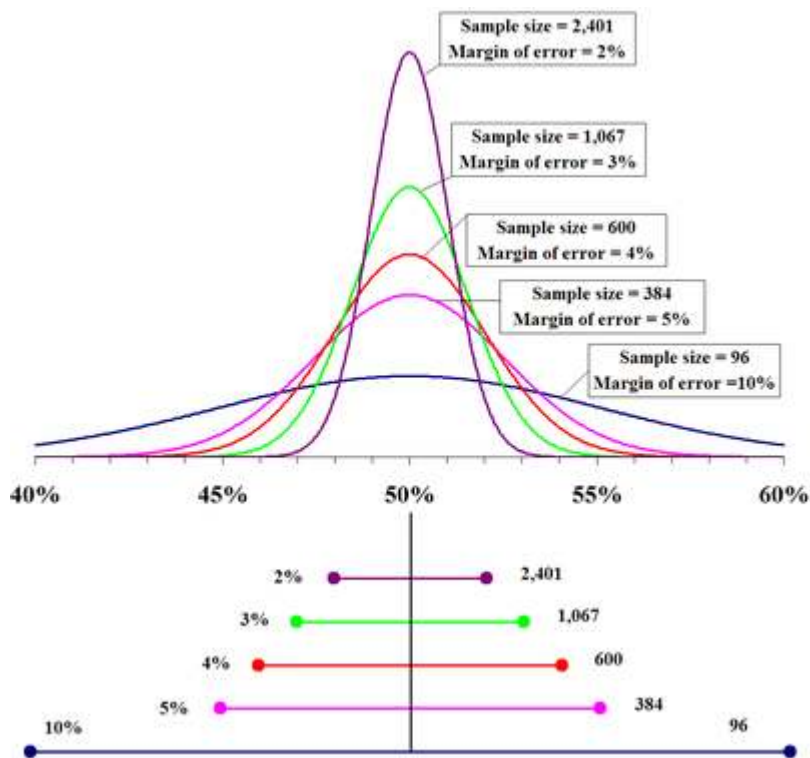


Figure 1 Standard deviation curve

This curve is the standard deviation curve for a sample size. It shows that the most accurate results are around 50%.

3. Method

To be consistent with previous surveys conducted by MCDEM or TEMO, it was decided to conduct a phone and internet survey with a follow up focus group interview.

3.1 Phone survey

The bulk of the survey results were taken from this medium. There were on average 4 people making the calls. Each call lasted no longer than 15 minutes. Dates of the survey were from the 11th of January to the 18th of January 2010, from 12 noon until 8:30pm on Monday through to Friday and on Saturday from 10am until 3pm.

The survey had a mixture of prompted and unprompted questions; the results section of this report outlines the types of question and whether they were prompted or unprompted.

Nobody under 16 years of age was surveyed.

Data was recorded without personal identifying details (name or address).

The survey was pre tested on 5 people who had various levels of knowledge about Civil Defence. This was to ensure that as far as practicable questions had been tested for clarity and lack of ambiguity.

The results of the survey were entered onto a web based survey program (www.surveymethods.com). This website anonymously recorded data that the operators enter into it. This web based program allowed surveyors to tabulate and graph the results in bulk.

3.1 Web based survey

The web based survey was located on the Civil Defence and Emergency Management homepage on the Taranaki Regional Council website. The form was created in the Taranaki Regional Council's content management system. The web-based survey was publicised through the local newspaper.

3.2 Focus group

The decision to invite people to partake in a focus group was designed to gather in-depth qualitative data to give the results of the above surveys additional meaning and interpretative detail. In the focus group the findings of the survey were discussed, and participants were asked thematic questions about emergency management knowledge and preparations the participants have undertaken in their own homes (Pearson *et al.* 2009). Attached as appendix 1 is the consent form and information sheet used in the focus group, for ethical appraisal.

In selecting and recruiting participants people who have some knowledge about Civil Defence were chosen. The CDEM volunteer database was used for this. This focus group used purposeful sampling, meaning the people are chosen on the basis of their knowledge and experiences. The aim of the focus group was not to be representative (Longhurst 2003), unlike the survey.

The focus group was transcribed and data entered into the various questions asked and recorded in section 9.

3.3 Context

It is important to understand that many local and national disasters have occurred since the last survey was conducted (2005). The air time that disasters get on Television, Radio and the Internet will attribute to people thinking about certain disasters more than others; the disasters that have occurred recently that may have had an effect on the respondents are:

Flood, Waitotara – 2006
Tornadoes, Oakura 2007
Fire, Patea - 2008
Swine Flu outbreak, New Zealand – 2009
Tsunami, Samoa – 2009
Bushfires, Australia – 2009
Earthquake, Haiti – 2010

These disasters are the most recent and prevalent in the Taranaki area or talked about at a national level. It is anticipated the results of some questions will be slightly affected by these events changing people's awareness and views.

4. Results and discussion

The results do not contain people's addresses or any of their private data. For this reason there is no way of linking a particular person's answers to their name, address or phone number.

The result to each question is in three distinct formats. The first is expressed as a quantitative result, the second as a graph, and the third is the comparison between the question and other surveys which have been produced, where these are known and relevant.

4.1 Districts

It is important to note the numbers of responses from each district as a comparison. Interviewers called and/or received web reports from:

New Plymouth: 495
 South Taranaki: 165
 Stratford: 50
 Total: 710

The graph below illustrates where the calls were made. The majority of the calls were made in New Plymouth district. This is because the New Plymouth district has the largest population of the region. Stratford and South Taranaki are also shown.

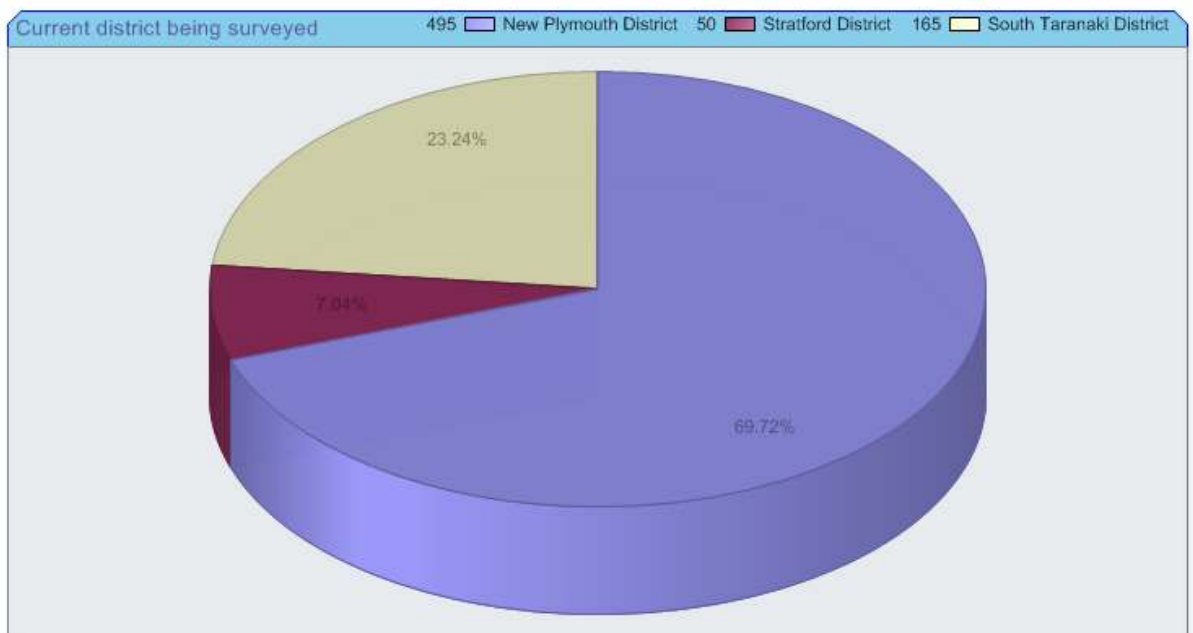


Figure 2 District distribution of survey

This is a similar number to the previous survey conducted at TEMO 5 years ago. In that survey a total of 900 households were surveyed.

Both TEMO surveys have used a much larger sample than the national survey discussed. This does not mean that we cannot compare national averages. It reflects the level of accuracy the national survey has in comparison with both TEMO surveys.

5. The phone survey results

5.1 Question 1

We will read out some statements; please tell us if you strongly agree, agree, are not concerned, disagree, strongly disagree or don't know.

In this question interviewees were read the following statements and were asked how much they agreed with them. The results are tabulated and graphed below.

Table 1 Statements about disasters

	Strongly agree	Agree	No concern	Disagree	Strongly disagree	Don't know
In a disaster there will always be someone to help you:	4.13%	47.46%	1.65%	36.18%	3.03%	7.57%
In a disaster the emergency services will be there to help you:	2.93%	50.4%	2.13%	31.33%	2.93%	10.27%
There will always be adequate warning before a disaster strikes:	0.4%	26.99%	2.16%	46.02%	13.09%	11.34%
It is your responsibility to look after yourself and your family during a disaster:	37.67%	58.45%	0.69%	2.08%	0%	1.11%

In a disaster 51.59% Taranaki residents believe that someone will be there to help. 39.21% of the people surveyed thought no one, or disagreed that someone would be there to help them in a disaster. 7.57% did not know whether someone would be there for them.

Over half (53.33%) the people thought emergency services will be there to help in a disaster. For the purposes of this statement emergency services include; Police, Fire, Ambulance/Health, Civil Defence and Red Cross. 34.26% of the sample disagree that the emergency services will be there to help. 12.4% did not know or were not concerned if they would be there to help. Given the closeness of the responses for the first two statements, most respondents were probably thinking of emergency services as being the main source of assistance.

At the same time, it was almost universally accepted (96%) that everyone must take the prime responsibility of looking after themselves and those near to them- a fundamental CDEM message.

59% surveyed stated that they disagreed or strongly disagreed with the statement that there will always be adequate warning before a disaster strikes. 4% strongly agreed with the statement and 26% agreed that there will be a warning of some sort. In terms of disasters that have struck Taranaki recently, or that have had national media coverage, tsunamis and floods have had a lead time, while tornadoes have struck without warning.

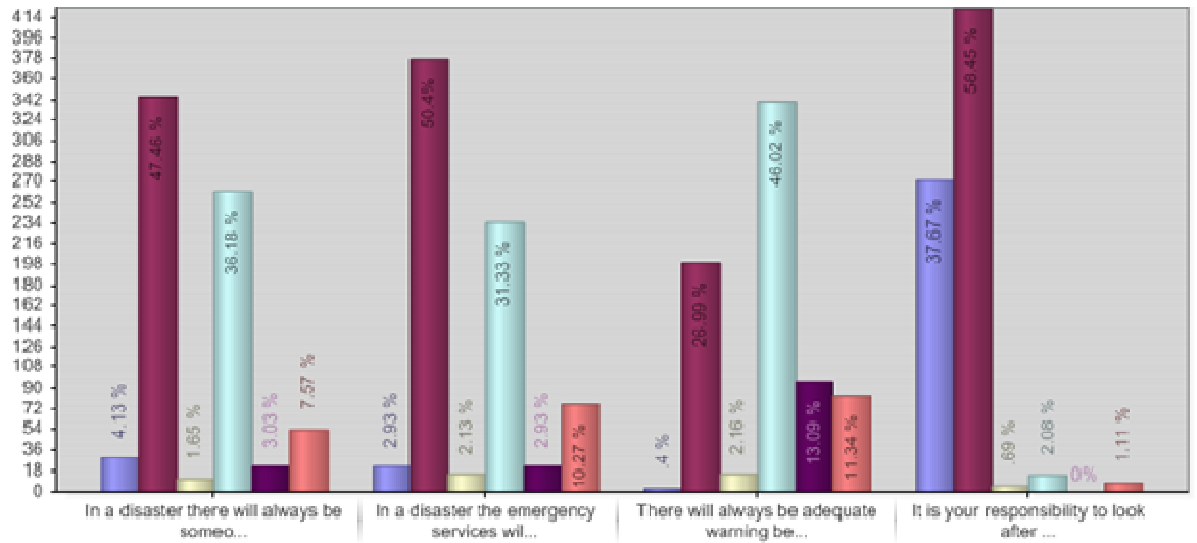


Figure 3 Graph of answers to question 1

It is clear from looking at these results that the population of Taranaki would be slightly inclined to expect some help from others. It is almost certain people believe it is their responsibility and not that of the emergency services to look after their family. A majority of people understand that there may well not be an adequate warning before a disaster.

In comparison to the CDEM survey, nationally in 2009:

Table 2 Comparative table of MCDEM survey and TEMO 2010 survey

	Strongly agree	Agree	Disagree	Strongly disagree	Don't know	No Concern
MCDEM Survey (Colmar Brunton. 2009)						
In a disaster someone will be there to help you	34	42	15	8	1	Not a option
In a disaster the emergency services would be there to help you	35	42	14	7	2	Not a option
There will always be adequate warning before a disaster hits	14	24	28	32	2	Not a option
It's my responsibility to look after myself and my family during a disaster	89	9	2	0	0	Not a option
TEMO Survey (2010)						
In a disaster someone will be there to help you	4.13	47.46	36.18	3.03	7.57	1.65
In a disaster the emergency services would be there to help you	2.93	50.4	31.33	2.93	10.27	2.13
There will always be adequate warning before a disaster hits	0.4	26.99	46.02	13.09	11.34	2.16
It's my responsibility to look after myself and my family during a disaster	37.67	58.45	2.08	0	1.11	0.69

Nationally, a much higher proportion of people are relying on the emergency services and other, non-emergency services to be there to help than do the Taranaki residents. Nationally, more people think there will always be an adequate warning before a disaster strikes than do Taranaki residents. Slightly more Taranaki residents think it is their responsibility to look after themselves and their family, than the national average.

Overall people in Taranaki have a much better appreciation that in a civil emergency, it is unlikely that the emergency services will be in a position to give assistance, and that people must be prepared to look after themselves and those around them. However, of concern is that half of Taranaki's residents believe that others will still be available to assist them, when the 'get ready get thru' message is that people may be on their own for three or more days.

5.2 Question 2

This question asked: **Which of the following do you currently have? Do you...**

This question examines whether people have an understanding of disasters and their effects. It was considered useful to ask whether the participants have attended Civil Defence meetings or seminars about disasters.

Table 3 What level of understandings do people have?

	Yes	No	Don't know	Total
Have a very good understanding of the types of disasters that could occur in Taranaki and the chances of them actually happening:	84.96%	12.95%	2.09%	710
Have a good understanding of the effects of a disaster in Taranaki:	73.4%	21.87%	4.74%	710
Have attended a presentation/show about Civil Defence or disasters:	28.57%	69.47%	1.96%	710

84.96% of the respondents thought they have a good understanding of the types of disasters which could happen in the region. In addition, 73.4% of the respondents think they have a good understanding of the effects. It should be noted that respondents were not examined to objectively test how good their understanding of disasters and effects was.

People were clearer (in their own minds) concerning disasters than concerning effects.

The final part of this question asked whether the participants had attended a Civil Defence presentation or a show. Of those surveyed 28.57% said they had. The majority (69.47%) had not attended a presentation. Respondents were not examined as to what they had in mind as a 'presentation' (e.g. an advertisement on TV?). The level of 'yes' responses was surprisingly high: each year the number of adults who physically attend seminars or presentations, or who receive information packs e.g. as handouts at shows or as part of Disaster Awareness Week, is in the range 2000-3000. While there are in addition a number of children each year who participate in classroom sessions on CDEM, children were not included in the telephone survey.

On a response rate of around 30%, this would indicate 24,500 people aged 15 and above across Taranaki recall having attended a presentation, or around ten times higher than the annual participation rate.

Nationally (2009), only 8% of respondents recall attending a CDEM presentation. Thus there is a far higher (by three times) level of engagement of the Taranaki population in CDEM presentations, than is the national level.

Nationally, 81% of respondents considered they had a good understanding of disasters (4% fewer than for Taranaki respondents), but 80% considered they had a good understanding of the effects of disasters (6% more than for Taranaki respondents).

Perhaps the most definitive conclusion is that clearly there is a high level of awareness/recall of CDEM-related material in the minds of the Taranaki community, but otherwise the level of knowledge of possible disasters and their effects is close to the national average.

5.3 Question 3

What are the types of disasters you think could happen in Taranaki?

This question was un-prompted. The question was designed to get people thinking about the types of hazards/disasters in their region. Using the survey program the surveyors only had to tick the boxes. The respondents could answer with more than one type of disaster, and many of them did so.

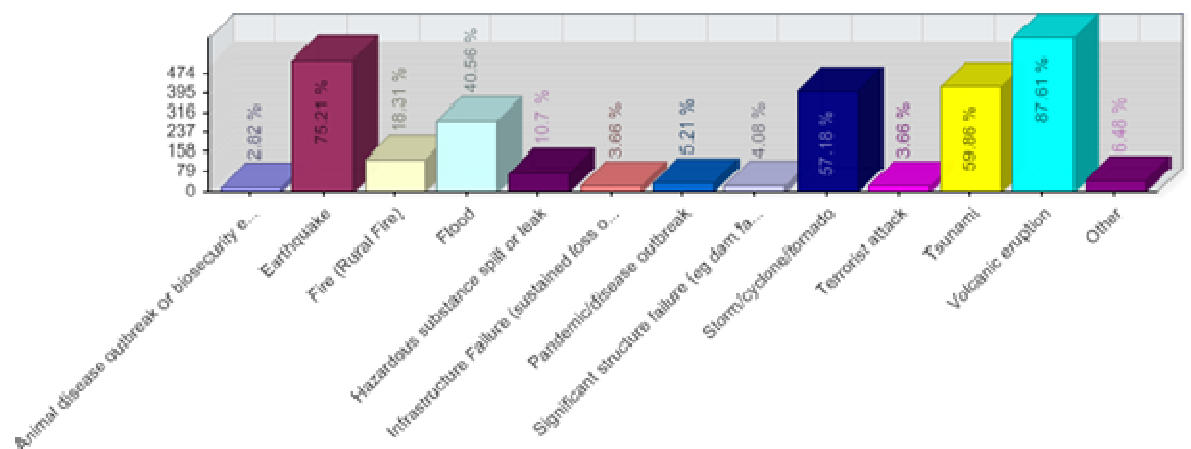


Figure 4 Graph of answers to question 3

Figure 4 shows each hazard out of 100% of respondents. This means, for example, that 87.61% of the people taking the survey identified a volcanic eruption, and 75.25% selected earthquakes, as a disaster that could happen in the region.

As mentioned in 4.4, the media has an effect on what people will perceive as a threat in their area. It is therefore not surprising given the recent earthquake in Haiti, that 'earthquake' would rate highly. Similarly, given the Samoa tsunami it was not surprising that people were aware of this hazard, even though they are considered a relatively low level threat to Taranaki (they are much more significant on the east coast of New Zealand). The significant effect that tornados have had recently on the

region, and the media coverage given to them, also comes through as they are shown as the fourth most commonly identified disaster.

However, with the publicity given to swine flu and other pandemics, it is surprising that they did not rate at all highly. With an extreme hazard posed by animal disease to Taranaki's economy, it is also surprising that respondents did not perceive this as a major threat.

A ranking of the hazards and public awareness, compared with the significant hazards identified within the Group Plan for Taranaki, is as follows:

Hazard in Taranaki	
Rank according to survey respondents	Rank according to Group Plan
Volcano	Human pandemic
Earthquake	Flood (eastern hill country/Waitotara)
Tsunami	Earthquake
Cyclone/tornado/storm	Volcano
Flood	Flood (lower Waitara River)
Fire (including rural)	Significant structure failure
Hazardous substance	Infrastructure failure
Other	Cyclone/tornado/storm
Significant structure failure	Animal health threat (biosecurity)
Human pandemic	Hazardous substance
Infrastructure failure and terrorist attack	
Biosecurity	

While the Group has focused on community readiness to cope with any sort of threat at all (as distinct from concentrating on only a few), nevertheless the results discussed above indicate there is a need to highlight some particular threats, to ensure better readiness for a suite of threats to the region.

5.4 Question 4

This question asked: **Think of a disaster situation that is most likely to impact yourself, what would it be?**

In this question we were aiming to establish what people perceive as the most likely to cause them damage or harm. They were un-prompted with the answers. Percentages shown are responses out of all respondents e.g. 33% of all respondents considered an earthquake as the disaster that was most likely to affect them.

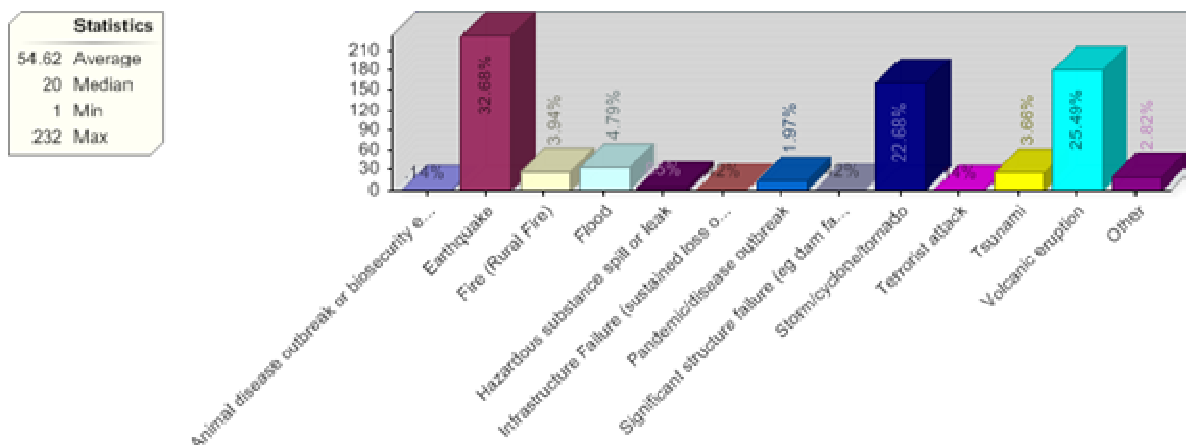


Figure 5 Graph of answers to question 4

Figure 5 shows people perceive earthquakes as the most likely (32.68%) to affect themselves. This effect could either be a direct one, as in their homes falling down, or an indirect effect, such as a family member's home falling down. It is likely that responses were highly influenced by scenes on TV during the period of the survey, of the devastation to buildings in Haiti caused by the earthquake there.

People perceive threats in the following order:

1. Earthquake (32.68%)
2. Volcanic eruption (25.49%)
3. Tornado/storm/cyclone (22.68%)
4. Flood (4.79%)
5. Fire (including rural) (3.94%)
6. Pandemic/disease (1.97%)
7. Hazardous substances/spill or leak (0.85%)
8. Significant structure failure and infrastructure failure (0.42%)
9. Terrorist attack and Animal disease (0.14%)
10. Other (2.82%)

The top five mirror the top five disasters likely to happen in Taranaki (excluding tsunamis) identified by respondents. The exclusion of tsunamis is quite realistic- as noted above, a tsunami reaching Taranaki is most likely to affect only a comparatively few people because of the absence of large coastal settlements. CDEM staff would otherwise consider the rating of volcanic disasters as unrealistically low (ash fall from even moderate volcanic activity would have a widespread and serious effect), and of tornadoes as unrealistically high (the tornado 'swarm' of July 2007 affected only about 80 residences, of some 40,000 more or less in the region). Again, the lack of personal experience of volcanic activity, and the high level of media attention given to tornadoes in recent years, has clearly affected people's perceptions.

As with question 3, the fact that less than 2% of the Taranaki community think that they would be badly affected by a pandemic is of considerable concern.

In the previous 2005 survey, 79.1% thought volcanic eruption was most likely to result in an emergency, followed by an earthquake (59.7%). Flooding ranked 3rd at 37%. Although the 2005 survey asked the question in a slightly different format to the one asked this year, it does provide a base for comparing with the responses to

question 4. From this it is clear that people are for the time being mainly concerned with earthquakes, but volcanic eruption is still ranking highly in people's perceptions.

Taranaki as a regional community is far more concerned with the natural disasters, as distinct to the pandemics and human induced disasters. Only three possible disasters dominate people's perceptions of what is most likely to personally affect them- volcanoes, earthquakes, and storms/tornadoes. The Group Plan (2004) considered scale of impact (severity as well as number of victims), rather than just number of people who could be affected, but that analysis indicated volcanic activity, high winds, and biosecurity threat as those with the widest likely impact, with public health threat and earthquakes next. The biggest discrepancies relate to human and animal health threats.

5.5 Question 5

This question asked a general question of what people would do in the event of a disaster. **What would you do if a disaster strikes?**

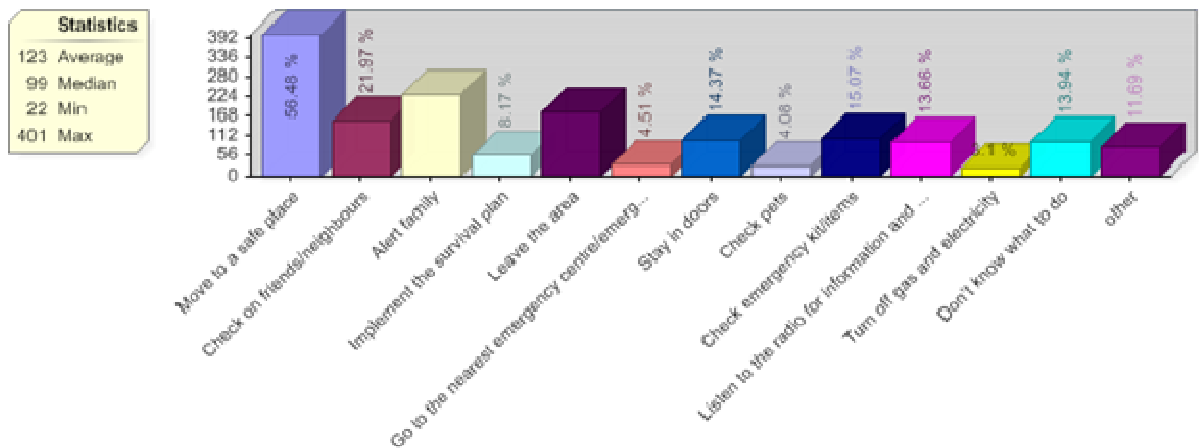


Figure 6 Graph of answers to question 5

Each statement is out of 100% (ie compared with the total number of respondents). Respondents could choose more than one option.

The most common response was that people would be thinking of moving to a safe place (56.48%), or even out of the area (25.49%). The next most common responses were to alert their families (32.68%) and check on their neighbours and friends (21.97%).

From the perspective of CDEM, generally it is better for people to remain in their homes if at all possible rather than move. Their likely location is more clearly defined, they are much more likely to have a range of resources, and psychologically they will be more settled. Once people leave their homes they rapidly become dependent upon others and it is much harder to trace people's movements and whereabouts. It is also recognised that in a disaster, there is an almost universal desire to go to the place of residence, rather than to leave it.

There may be some ambiguity around how people interpreted their choices for this response- the reference to going to 'a safe place' may have implied that the place of

residence was destroyed and so remaining was not a viable option. If this is the interpretation, then the CDEM message that a disaster might mean people having to be prepared to and capable of moving may be consistent with the high level of responses around thinking of moving.

15.07% would check on the emergency kits and items in the home they needed. 14.37% would stay indoors. 13.94% would not know what to do. 13.66% would listen to the radio for further instructions. 8.17% would implement the emergency plan. Only 4.51% of people surveyed would go to the nearest Emergency Centre. 3.1% would turn off their gas and electricity 4.08% would check pets, and 11.69% would do other things, for example, go to fire and police stations.

Overall, the responses to this question indicate a degree of instinctive rather than carefully considered and pre-planned behaviour and actions.

This question parallels the 2005 survey, which asked: **In general terms what would you do if a disaster struck your area?** In 2005, 37.4% said they would listen to the radio, 26.7% would check on family, and 9.5% would go to an Emergency Centre.

Disturbingly, between 2005 and 2010 there is a decrease in the number of people who would listen to the radio, by 23.74% to 13.66%. There is however an increase in the number of people who would check on their families, by 5.98% to 32.68%.

5.6 Question 6

This question was designed to see who would be able to provide assistance in the event of a disaster situation. The question asks: **In the event of a disaster, who do you think will be able to help you?**

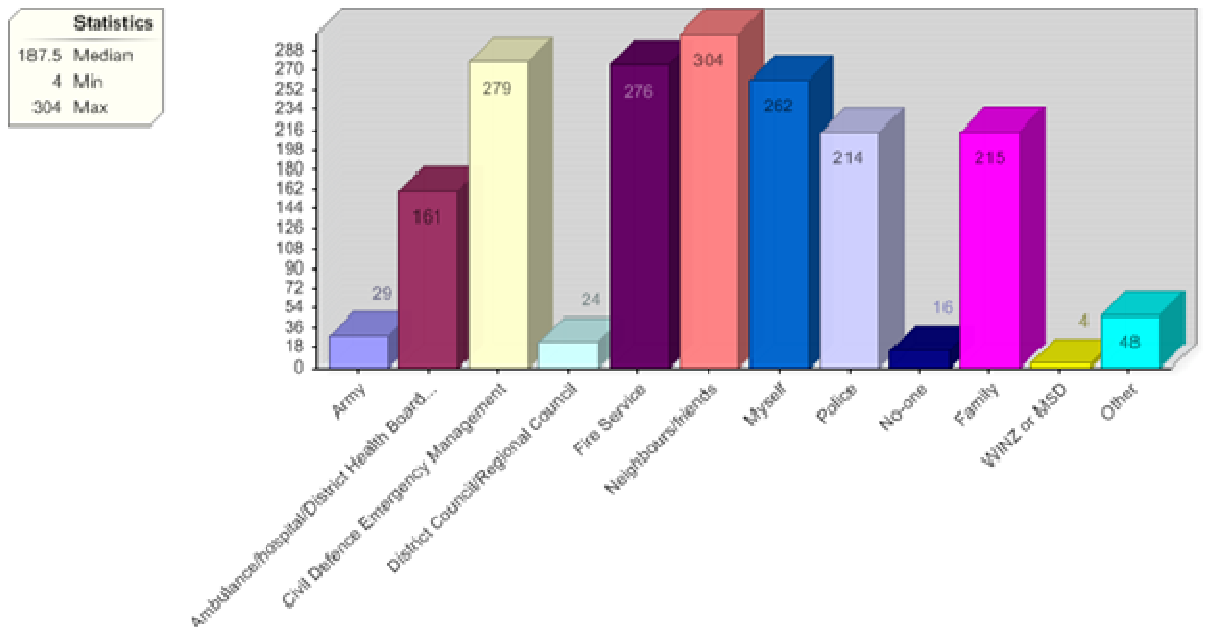


Figure 7 Graph of answers to question 6

Respondents could choose more than one option for this question. It should be noted that the total number of respondents was 710.

Many people believe that there was more than one source of help available in the event of a disaster. Only a few (2.25%) thought there would be no one at all to help them.

The most common response was that people believe neighbours and friends would be able to help them in a disaster (42.82%), followed closely by people being able to or expecting to help themselves (36.9%) or that family would come to their assistance (30.28%).

In terms of authorities and agencies, the most common belief (39.3%) was that Civil Defence would provide help. 38.87% think the fire service would be there, followed closely (30.14%) by the police. 22.68% believe the ambulance and hospital services would help. 4.08% thought the military would assist. 3.38% thought the Districts or Regional Council would provide assistance, and 0.56% thought the Ministry of Social Development will help.

6.76% answered 'other' to this question. 'Other' included Red Cross, Citizens Advice Bureau, Salvation Army and Neighbourhood Watch.

Most people in the region therefore think their local community-friends, neighbours, and family- will help them, followed closely by the Civil Defence and the Fire Service.

In the national MCDEM survey the fire department scored highest on 83% followed by neighbours, 82%, and CDEM with 81% (Colmar Brunton 2009)

As with other questions, caution should be applied to the interpretation of responses. The CDEM message is that there may be no agency in a position to render assistance immediately following a disaster- therefore the 'myself' and the 'no one' responses are the 'correct' answers. In a similar vein, another CDEM message is- 'if it is an emergency, call the emergency services on 111, don't call CDEM'. If this is the case for this question, then that fact that more respondents identified CDEM as a party to give assistance than identified fire, police, or ambulance is of concern. On the other hand, it could be argued that the question did not specify 'on-site' assistance, and in that case the high awareness of CDEM as a source of help such as advice being broadcast is a very encouraging response.

The responses to both this question and the preceding one (what would you do in a disaster? Check on family / friends) indicates a strong sense of community and mutual assistance amongst respondents.

5.7 Question 7

This question was designed to get people thinking about what could be disrupted in a disaster. The question was: **Following a disaster some services/utilities may be disrupted or unavailable; what services do you think these might be?**

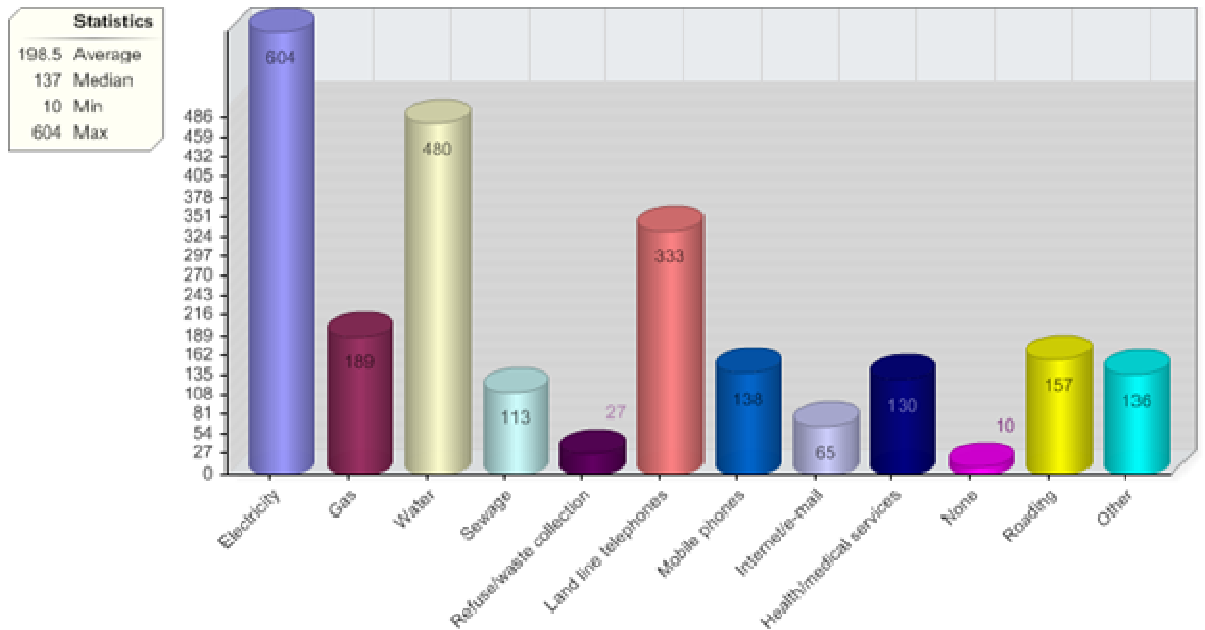


Figure 8 Graph of answers to question 7

Respondents to this question could choose as many options as they wanted. These answers were unprompted.

Utility services in Taranaki are generally quite reliable, but it is possible respondents were aware of electricity outages that had affected Auckland and made news headlines.

The vast majority of people realise there could be a loss of electricity (85.07%). Interestingly, only about half this number (46.9%) identified a possible loss of landline telephone coverage, even though both are transmitted by wires on poles and would therefore have similar physical vulnerability.

67.61% responded that there could be a loss of water, but less than 26.62% believe that gas would be affected, and less than 16% think there could be a loss of sewage, even though gas, sewage and water are transported by buried pipelines and again would have similar physical vulnerability.

22.11% think there will be an effect on roads. 19.44% think mobile phones will be disrupted. 18.31% do not think they will be able to receive medical care. 9.15% think that the internet will not work. 3.8% do not think that their rubbish will be collected. 1.41% people think nothing will be affected by a disaster. 19.15% think other services for example buses and churches will be affected.

Intriguingly, while most people consider electricity would fail, most people think that cellphones and the internet- which need electricity- would still continue (or at least did not appreciate the full range of utilities that could be affected in a disaster, especially those that are dependent upon electricity). Similarly, if roads are closed (around 22%), how could refuse collection services continue (less than 4%)?

The majority of people think that electricity, gas and water are the most likely to be affected by a disaster.

In the MCDEM survey, 99% said electricity, 95% said telephone, 89% said roading, 85% said health, 87% said water, 84% sewage, 79% said gas, and 56% said mobile phones (Colmar Brunton 2009).

Probably the main point to be drawn from the responses to this question is that there appears to be a lack of appreciation of the inter-dependency of utility services in current times, and a lack of awareness of how many services there are that might fail. The responses may well reflect the utilities that people are most aware they depend on, rather than those that are most likely to fail in a disaster.

5.8 Question 8

This question asks: **How important is it that you are prepared for a disaster?** The respondents were given three options to chose either **Very important, Important or not important.**



Figure 9 Graph of answers to question 8

The vast majority, 689 or 98.4%, of people think it is either very important or important that they are prepared for an emergency. Only 21 respondents, or 1.6%, think that it is not.

This question links directly with the next.

5.9 Question 9

This question is an emotion based question. It asks: **How well prepared do you feel you are for a disaster?**

This question had four possible answers, which were read out to the respondents. The options were **fully prepared, prepared, I've thought about being prepared but haven't done anything, and not prepared at all.**

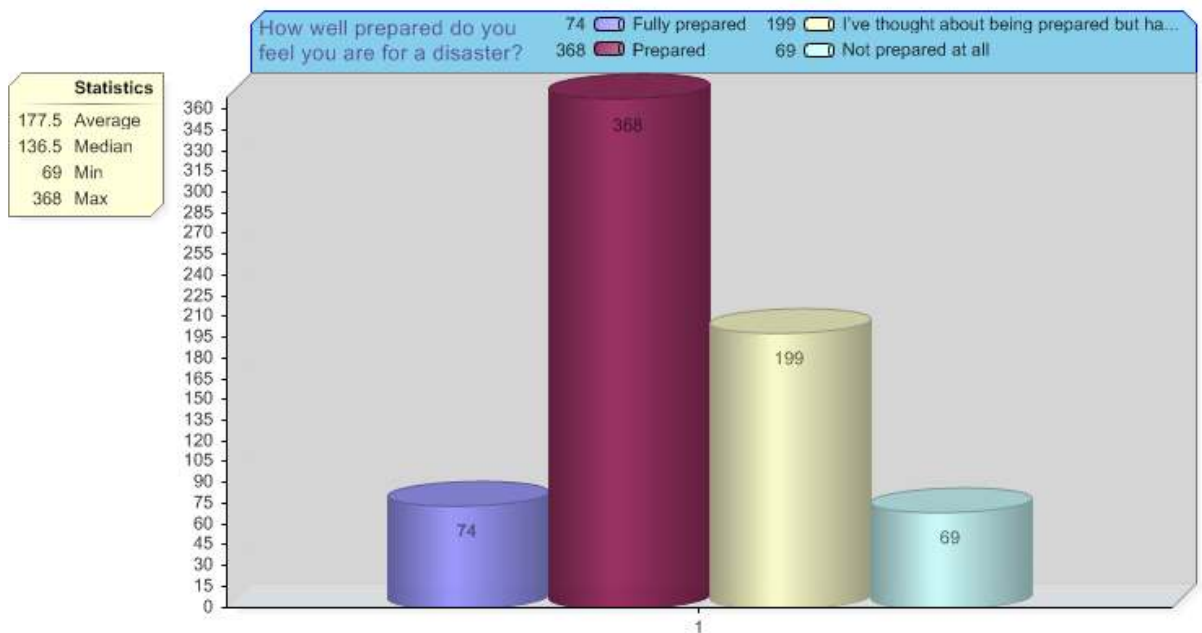


Figure 10 Graph of answers to question 9

Only 10.42% of the population think they are fully prepared, even though in response to the previous question, 58% felt it was very important that they were prepared. Thus, it would appear that over half the population consider they are somewhat less prepared than they could be (although the distinction between 'prepared' and 'fully prepared' was not explored).

A larger percentage (51.83%) think they are prepared. In total 442 people, or 62.25%, believe they are prepared for a disaster. This at least matches closely the proportion of people who believe it is very important that they are prepared.

28.03% have thought about being prepared but have not done anything about it yet. A smaller percentage thinks (9.62%) they are not prepared at all. In total 268 respondents are not prepared for a disaster.

This is a very similar result to the MCDEM survey carried out in 2009, where 10% of respondents considered themselves fully prepared (Colmar Brunton 2009).

The main point to emerge from this question is that there is a large gap between those who know they should be ready, and those who actually have done something about it. That is, the core issue is now not one of trying to convince people; it is a matter of motivating them to act. Interestingly, at the end of each interview each respondent was asked whether they would like to receive a CDEM information package: 420, or 60%, took up the offer made.

5.10 Question 10

This question asks whether the respondent has a **household emergency plan/survival plan**.

The respondents were given options to answer this question. They were; **yes, no, don't know, and don't know what an emergency household plan/survival plan is.**

Respondents were not quizzed further as to what they considered a survival or emergency plan to consist of.

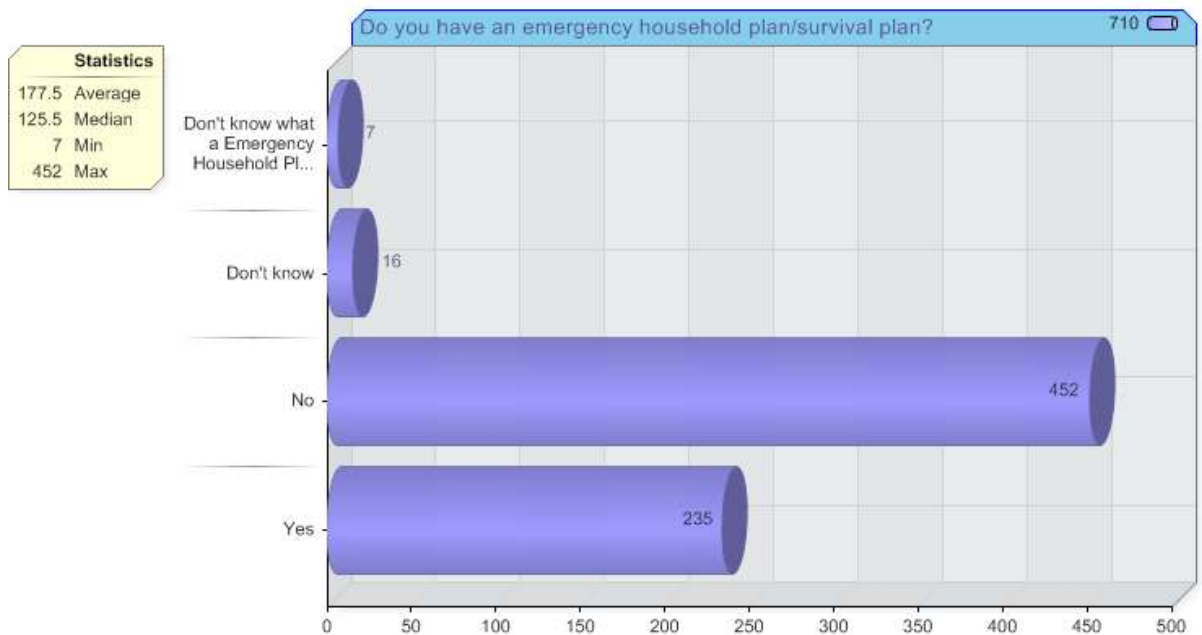


Figure 11 Graph of answer to question 10

33.1% said they do have an emergency household plan/survival plan. This is a small increase of 2.3% since 2005.

63.66% responded 'no' to this question, a decrease of 4.14% since 2005.

3.24% did not know what a household emergency plan/survival plan is. This was a negligible increase of 0.84% from the 2005 survey.

Overall, it seems there has been a small increase over the last five years in the proportion of households in Taranaki with an emergency/survival plan.

Although there has been an increase in the number of people locally who have a survival plan, Taranaki is still behind the national average. Nationally 49% have a survival plan, 16% above the TEMO survey.

5.11 Question 11

This question is designed to see if people have an emergency supplies kit. This question asked: **Do you have an emergency supplies kit?**

This question has prompted answers of **yes, no, don't know, and don't know what a survival kit is**. Respondents were not asked to state what was in their survival kit.

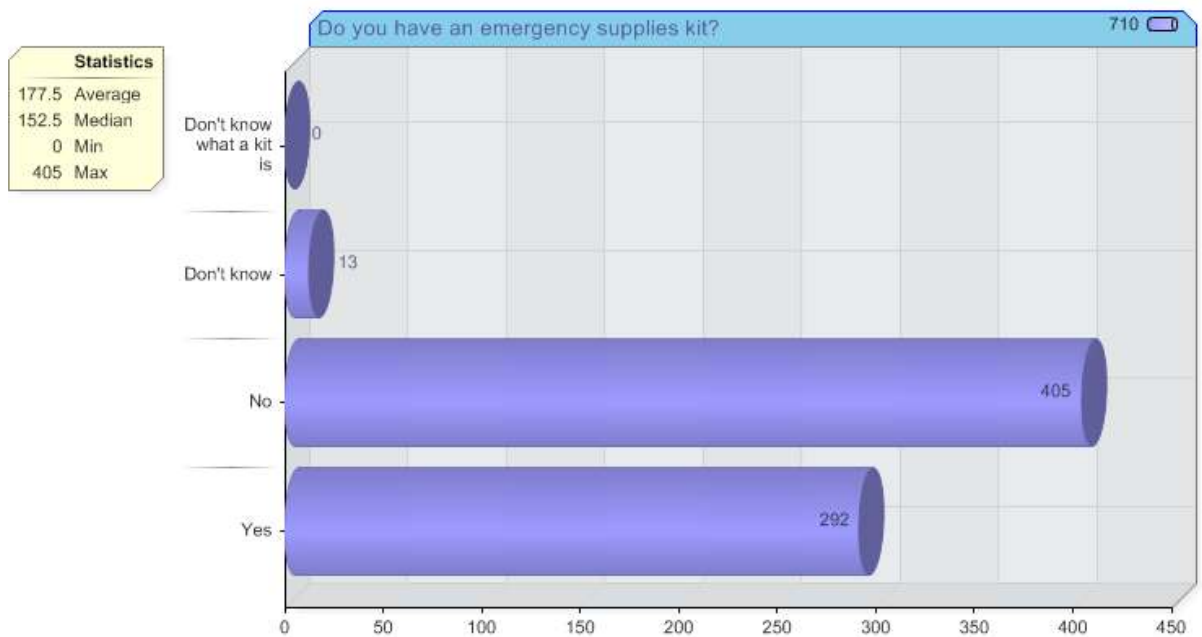


Figure 12 Graph of answers to question 11

41.13% of respondents do have an emergency supplies kit. This is an increase over the 2005 survey, of 11.13%

57.04% do not have an emergency supplies kit.

1.83% does not know.

Everyone surveyed knew what an emergency supplies kit was.

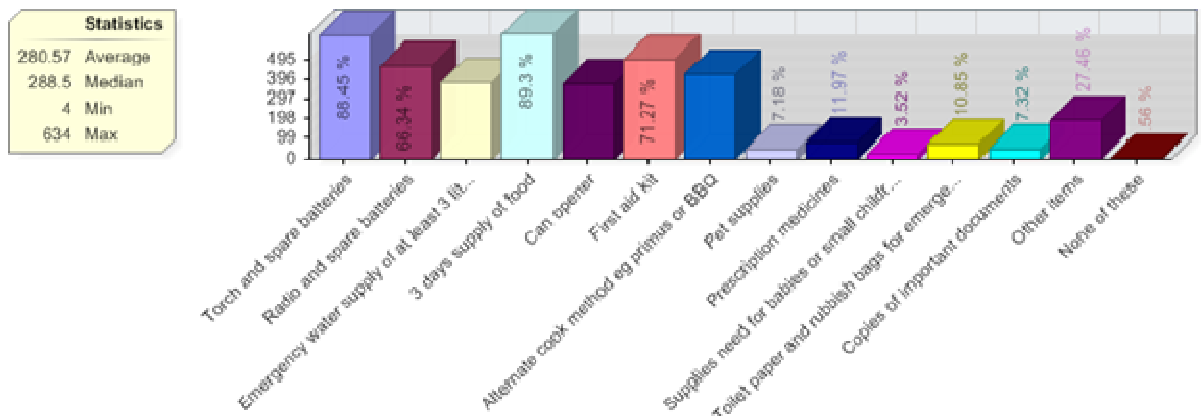
5.12 Question 12

It was seen as important to understand the items that people have in their homes for a disaster. This question is a stock take of the items that participants have ready if an emergency happened at the time of the call.

The question was: **What are the items in your home that are ready for use in an emergency?** This question was prompted and the results from this are tabulated below and graphed for readability. Respondents could choose as many options as they wanted. Each statement is therefore out of 100%.

Table 4 Table of results for question 12

	Responses	Percent
Torch and spare batteries	628	88.45%
Radio and spare batteries	471	66.34%
Emergency water supply of at least 3 liters per person per day	389	54.79%
3 days supply of food :	634	89.3%
Can opener	382	53.8%
First aid kit	506	71.27%
Alternate cook method eg primus or BBQ	429	60.42%
Pet supplies :	51	7.18%
Prescription medicines :	85	11.97%
Supplies need for babies or small children :	25	3.52%
Toilet paper and rubbish bags for emergency toilet :	77	10.85%
Copies of important documents :	52	7.32%
Other items :	195	27.46%
None of these:	4	0.56%

**Figure 13** Graph of answers to question 12

The majority of people in Taranaki surveyed do have at least three days food supply (89.45%). This is not limited to items contained within a specific survival kit; it could include items in the pantry and freezers.

88.45% of the population has at least one torch with batteries. Many people said they have more than one torch and keep them in various locations around the house.

71.27% said they have a first aid kit that is up to date. 66.34% have a transistor radio with spare batteries. 60.42% have an alternative cooking method to a stove inside the house. This included a BBQ and portable gas cookers. Many people surveyed said they have more than one alternative cooker as they had one for camping or tramping as well as a BBQ.

54.79% said they have an emergency supply of water. This included, but was not limited to, ground water bores, water storage from rainwater and water put aside in the home, stored in bottles for a purpose like not having tap water.

53.8% do have a non-electric can opener. It was decided to ask whether it was electric or non-electric because in an emergency power is likely to not work.

11.97% have prescription medicines stored away for a disaster. 10.85% have toilet paper and/or rubbish bag for an emergency toilet. The respondents were asked if they would know how to use them. Those that responded yes they knew how to set up a emergency toilet were calculated in the 10.85% those who did not know were not counted in this question.

7.32% said they do have copies of important documents stored in a safe place to be taken away in the event of an emergency.

7.18% have extra pet supplies for a disaster. 3.52% have extra supplies for children; this is representative of the age of the sample.

27.46% had other items, which included their own personal effects, which they would like to have in an emergency.

Only 0.56% or 4 people said that they have none of these items in their home for use in an emergency.

Nationally, 79%of respondents identified some sort of item they could use in an emergency: there is thus a higher state of preparedness, or at least awareness, in Taranaki (89%) than nationwide. Similarly, nationwide, 44% had stored water: there is thus a higher state of resilience in this particular aspect in Taranaki (55%), although the question asked in Taranaki referred to emergency **supply** of water rather than to just **stored** water (the Colmar Brunton poll question)

5.13 Question 13

This question asks if the respondents have household and contents insurance.

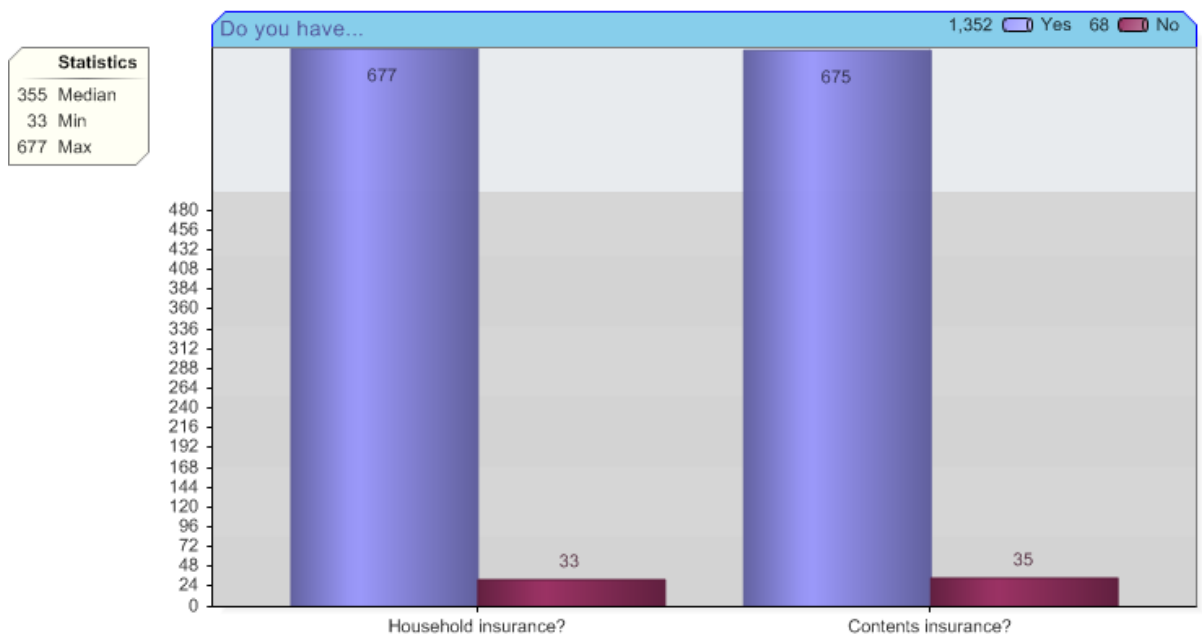


Figure 14 Graph of answers to question 13

The vast majority of the population have household insurance (95.35%) and contents insurance (95.07%).

Only 4.65% did not have household insurance and 4.93% did not have contents insurance.

This question was asked as one measure of the potential for recovery. Those with insurance to cover replacement of property and contents will be much more resilient than those who have no financial resources to cope with disaster and who must become totally dependent upon assistance from others.

While the proportion without insurance cover is low, on a regional population basis it represents around 4,000-5,000 people, or around 2,200 families. To have this number of households who have made no provision for recovery from disaster is of concern.

5.14 Question 14

This question asks **Before a disaster where would you go to get information about how to prepare for a disaster?**

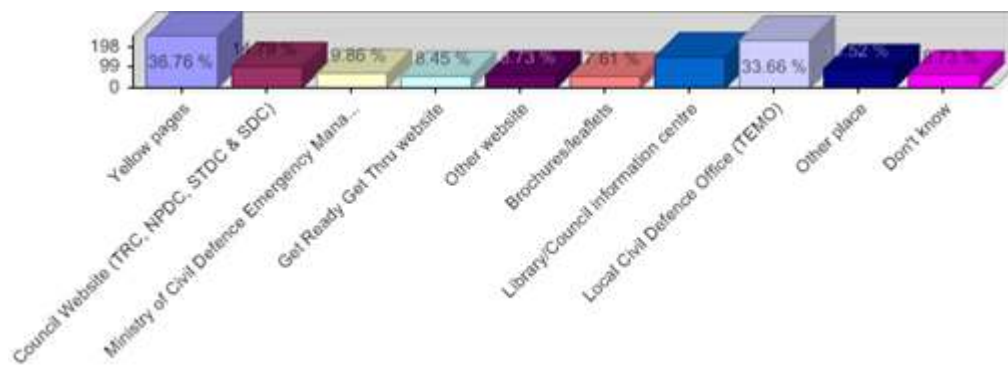


Figure 15 Graph of answers to question 14

People generally identified the leading sources of publicly available information when it came to this question. 36.76% have seen the information sheet in the back of the 'yellow page' of a telephone directory and would look there. However these figures were low compared with the 67% nationally who are familiar with the CDEM information within the 'yellow pages'.

33.66% would start at the local Civil Defence Office, TEMO. This compares favourably with the national figures of just 18%.

21.83% would look in the Information Centre or go to their District /Regional Council. This compares with 31% nationally for a District or Regional Council and 6% for a Library.

14.79% would look on the District/Regional Council website. 9.86% would look at the MCDEM website. 8.73% would look on an alternative website, like Google. 8.45% would look at the 'Get Ready Get Thru' website, perhaps a low figure given the saturation TV advertisements promoting this website. Nationally, 29% said they would look at a CDEM website, and 26% said they would search generally on the

web. Overall, local sources (TEMO, council webpages, libraries) had a much higher profile ahead of national sources (MCDEM, 'get ready get thru')

7.61% would look at brochures and 13.52% would go to other places to look for information. Only 8.73% would not know where to look.

5.15 Question 15

This question asks: **During an event or a disaster, where would you get information about what to do?**

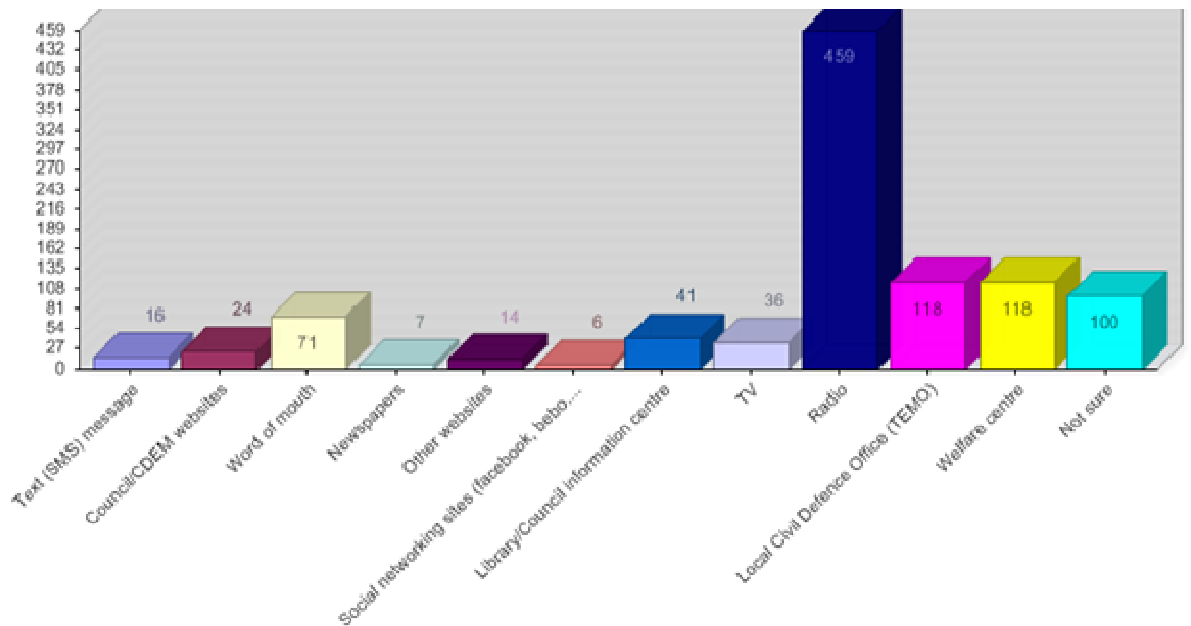


Figure 16 Graph of answers to question 15

The majority of Taranaki will listen to the radio (64.65%) in an emergency. This is very consistent with the CDEM message of 'listen to your local radio in an emergency', and also provides clarity around the responses to Question 5, where only 14% identified 'listening to a radio' as a response to what to do if a disaster strikes.

16.62% said they would get information from the Taranaki Emergency Management Office. This is consistent with the experience of CDEM staff during emergencies or incidents, when there can be a steady stream of telephone enquiries from the public to TEMO. An identical proportion, 16.62%, would go to a welfare centre. 14.08% would not know where to go to get information, which is concerning.

10% would rely on information by word of mouth. This includes neighbours and friends and family contact.

5.77% would gain information from the Council offices or the Information Centre, 5.07% would gather information from the television, and 3.38% from the CDEM website.

2.25% would get information from the Civil Defence text message service (which has been designed as an alerting system, not an information dissemination system). 1.97% would gather information from other websites, such as news sites like stuff.co.nz.

Extremely small percentages would get information from the newspaper (0.99%) or from social networking sites, like *bebo*, *facebook* and *twitter* (0.85%). Overseas disasters in recent months have seen these sites used quite significantly.

5.16 Question 16

This question asked the **age** of the participants.

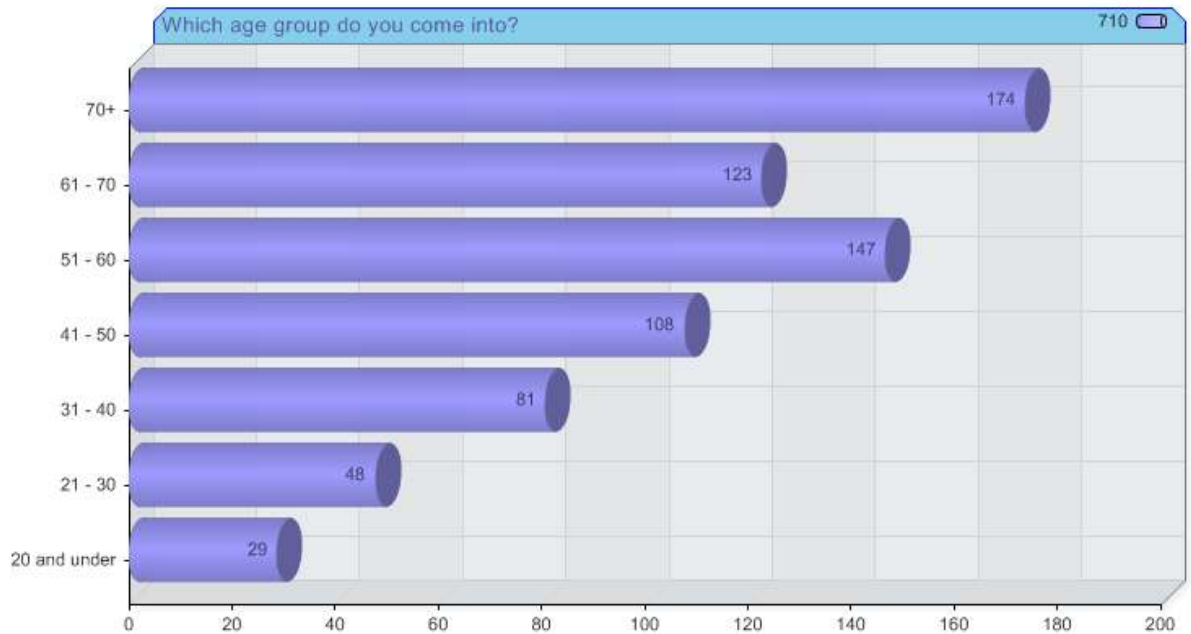


Figure 17 Graph of age group

24.61% of the people who were called were over the age of 70. 17.4% were aged 61-70. 20.79% were aged 51-60. 15.28% were aged 41-50. 11.46% were aged 31-40. 6.79% aged 21-30, and 4.1% 20 or under. For the purposes of this survey people under 16 years old were not asked to participate.

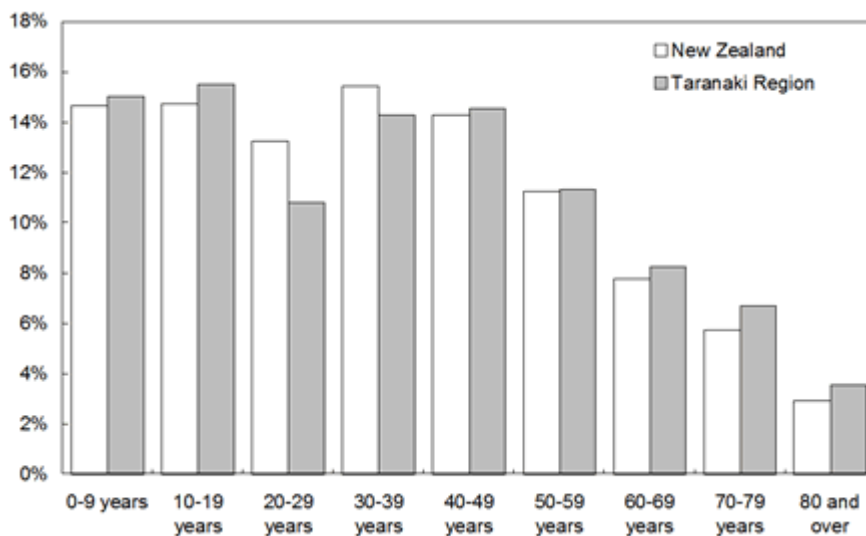


Figure 18 Age distribution of Taranaki
Source Ministry of Economic Development, 2005

The sample that was surveyed was biased towards the older population. Reasons for this could include the time of day the survey was conducted (12 noon to 8:30pm on weekdays, and hence biased towards those at home during the day, at least until around 5 pm. Calls were also made on Saturday), and the method of selection (chosen from those with landlines).

The MCDEM survey does not state age groups surveyed neither did the previous 2005 TEMO survey.

5.17 Question 17

This question asked: **What gender group do you fit into?**

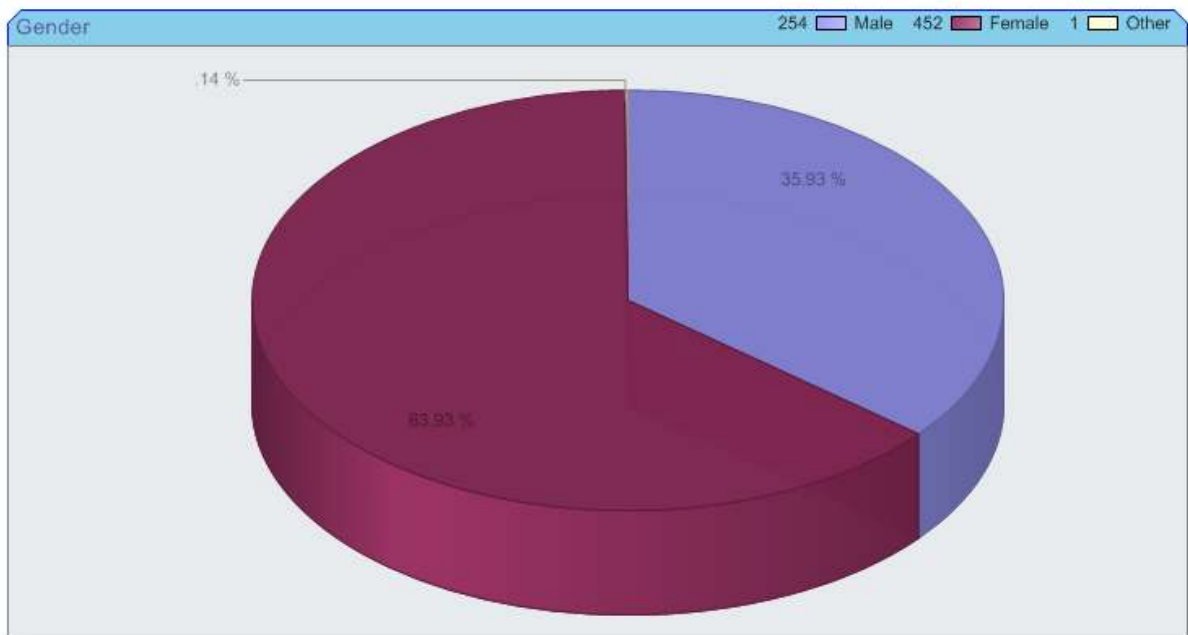


Figure 19 Graph of gender distribution of survey

452 people surveyed were female and 254 men, 4 people responded as 'other'. Statistics New Zealand states that Taranaki has 52,566 females and 50,478 males.

For statistical purposes it is useful to know the gender of those surveyed as it gives an understanding of how informed different gender groups are.

5.18 Question 18

Once the survey was completed, respondents were asked whether the participants wanted to receive any information about Civil Defence and how to be prepared for a disaster. The information sent out included the following:

- Taranaki eruption
- Tsunami evacuation
- Get ready get thru
- Get your pets through too
- Getting ready for the flu
- Emergency water
- Quake safe your home
- Ashfall
- Text service
- Emergency Planning Guide
- TDHB info on flu
- Household emergency checklist

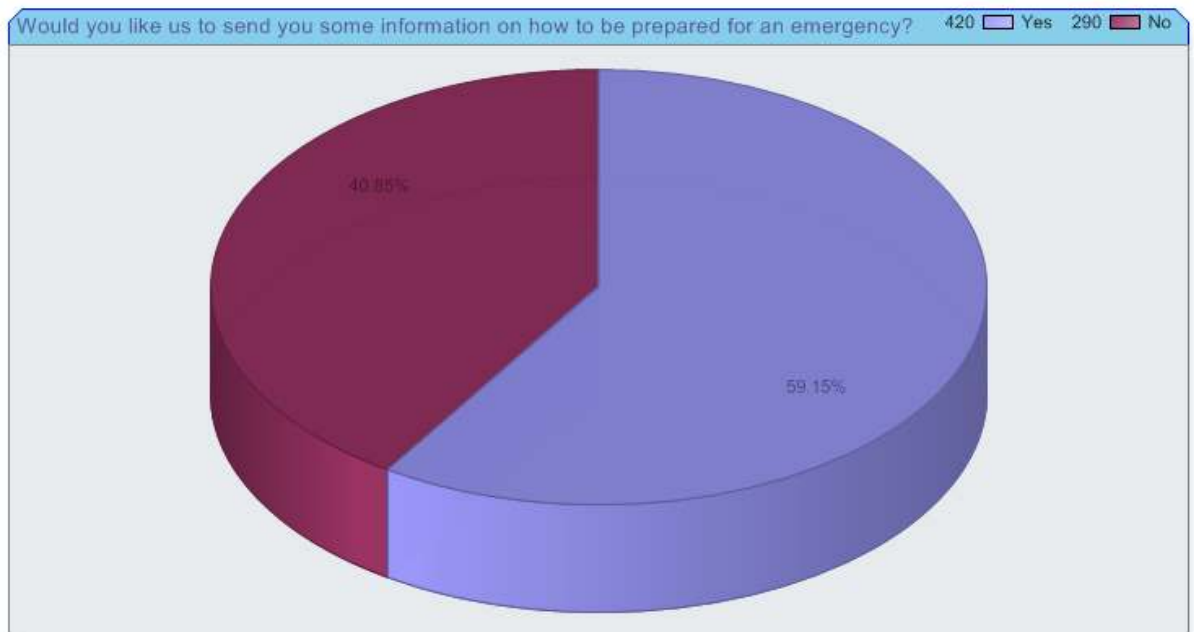


Figure 20 Graph of people who requested further information

Of those surveyed, 59.15% (420) of the sample requested further information to be sent out. This was an unexpectedly high proportion, as it required respondents to spend some additional time on the call, and required respondents to provide personal mailing details.

No analysis has been conducted into the degree of overlap between those who felt they were under-prepared for a disaster (question 9) and those who accepted the offer of further information, but clearly there is significant overlap.

6. Focus group

The focus group was thematically chosen and represented people of all levels of CDEM knowledge. The participants are volunteers with CDEM.

The group discussed a series of themes relating to Civil Defence preparedness, including: who people would listen to in an emergency, forms of communication in an emergency, emergency household plans, items in home for an emergency and emergency supplies kits, whether family and friends are prepared, and the types of disasters that could happen in Taranaki.

Who would people listen to in a disaster?

There was much discussion around who would be a reliable source of information in the event of a State of Emergency being declared. The aim here is to establish who people would trust. Would they, for example, be a political figure like a Mayor, or an authority figure like the Controller, or an expert in their field about the situation that is taking place. All the participants agreed it must be someone skilled in the area. However one participant also stated *it depends on whether you are listening to the radio, TV or whatever*. One of the participants stated *they wouldn't have even known what the controller was, and a lot of people might be like oh well what do you know? Who is the controller?* This means the information the controller is giving out may not be taken seriously or be understood as significant, without some other collaborative source of information.

A participant thought *it has to be somebody like the Mayor or a police commander, or his deputy, someone at that level and somebody who can speak with authority. Someone who we are going to listen to, and if you just have an ordinary policeman off the street then they probably wouldn't be listened to, to the same degree, whereas the area commander for the police force, well somebody is going to stand up and listen, it could also be the fire chief but I don't think we have other organisations who carry the same weight*. The participant here outlines people who they think are able to speak with authority and the ability to make people listen.

It is important to the participants the title and organisation the speaker is from is mentioned. This is seen to give credibility to the person who is speaking. *I guess it could be their title, so if I was looking at something that said, oh such and such somebody, from the Civil Defence I would probably listen more you know, if it was from the Civil Defence. Yeah there is definitely a need to state the organisation they're with*.

The issue of the way the information is dispersed also is a contributing factor. The focus group discussed this issue and concluded the radio as the best form of getting information out to people. However, they also raised this point. *And one thing we don't know? Do we go to More FM or Classic hits; do we go to ZB or the national programme where do we go [and] There are 5 stations, yes but, I wouldn't be able to name them off by heart, do you know the frequencies? No I don't know the frequencies of them you mean our local stations? Newstalk ZB is one oh yes more FM is another*. The focus group discussed the issue of what station to listen to at length, however it was obvious that no one knew what stations people should or should not listen to nor the frequencies required, which would give local information.

We then discussed the way information about radio station frequencies could be made more widely known than is the case currently to the general public. The group came up with the following:

- Phone book
- Newspaper, at the top of the front page
- Wallet card
- Text alert system

Emergency Household Plans

This was a general discussion about what people should have or do have in their homes ready for an emergency and where they would meet up in a disaster situation.

The participants all agree there is a need to have a emergency household plan and a emergency survival kit. The group was, however, concerned about the survival kit, and what foods to store and water needed. People are storing their items in kits and in the bottom of their cupboards. Participants are also worried about people becoming complacent in re-stocking their kit. *Yes you sit on your laurels, thinking oh I have this lovely plastic box full of stuff that stuff won't need to be changed for a while. Yes and a lot of that stuff won't need to be changed though like toilet paper. It is still better than nothing.* Therefore there is a need to develop measures to not only promote advertising of having a kit, but also to promote re-stocking/replenishing the items in the kit.

Various methods of storing water were discussed. The method the group agreed upon was to store frozen water in the freezer as a back up to the water already stored for an emergency. *If you've got a half dozen of 2lts containers at the bottom freezer then that enough for three people to keep you going for 4-5 days. And it is better for your freezer because it is full. So if you've got space in your freezer put a milk container with some water in there, cause its plastic it will expand and take up the expansion of the water as it freezers.*

The focus group agrees you must have a mixture of food to support yourself during the days of an emergency. *I have got a BBQ at home that has a gas bottle that I've been using now for 8 years, its only a 9kg. Yeah and noodles mix it up with a bit of water and apparently its really nutritious, and energy giving, that's one of the reasons I tell kids because someone has told me this, I assume they're telling the truth and all kids love them they think it's fantastic, almost want it.*

Family and friends, are they prepared?

The general consensus is 'no, friends and family are not prepared'. When people discuss CDEM emergencies the reaction is varied, including both those who appreciate the knowledge and those who do not. Some people thought one of the focus group participants are *a bit of a dodo, cause I talk to people about this kind of thing, they think I'm a bit of a CDEM half-wit.* This makes it hard when people who educate others about being prepared get reactions like this. However, when it is coming from your friends and family then it is even more concerning that people will not listen.

The participants think you cannot make people prepared

One of the participants helped TEMO during disaster awareness week at Mitre 10 Mega. They had this to say about the experience: *They [people] avoided making eye contact, we were waving sausages and bags at them, I think they thought we were religious*

cranks! [Laughs]. I couldn't get over how they wouldn't; they'd swerve the other way. They did want to know, even going into the shop there was a display, for CD, saying these are the things you need, they just walked straight past it, didn't even see it. As they [people] came out you ask them 'did you see the display inside?' 'No'. The focus group participants who attended this awareness week felt people were not interested and had an attitude of not wanting to know anything about the organisation or disasters.

Types of disasters

The participants were New Plymouth based, so the majority of disasters were related back to their effects on New Plymouth as opposed to a Taranaki-wide perspective.

Flooding was one issue where the participants think New Plymouth is unlikely to be affected, but it is noted the Taranaki hinterland could be affected.

I think you have to think that for a volcanic eruption our wind direction blows it away from the city. What about those tank farms, the moral is don't live within eyeball site of the tank farms, get behind the hill. We might not all have the choice in that kind of real-estate.

One participant said *We [New Plymouth people] are going to have to be self contained in the district.*

7. Interpretation

From the responses to question 1, it appears people in Taranaki have a much better appreciation than the national average, that in a civil emergency it is unlikely that the emergency services will be in a position to give assistance, and that people must be prepared to look after themselves and those around them. However, of concern for Taranaki CDEM Group is that there is still half of Taranaki's residents who believe that others (not necessarily the emergency services) will be available to assist them, when the 'get ready get thru' message is that people may be on their own for three or more days. In context, recent emergencies in Taranaki have seen a high level of community response to assist victims, immediately and towards recovery.

Recommendation: consideration of public education on the theme: 'the next emergency may not be like the last', alongside the current message of taking responsibility for yourself and those around you.

From question 1 responses, it also appears people in Taranaki have a much better appreciation than the national average, that in a civil emergency there may not be adequate warning before a disaster strikes. There is a clear majority who appreciate this. However, over a quarter of respondents indicated they believed there would be warnings.

Recommendation: public education to include advice on warning signs (and their limitations) for natural hazards that individuals can note e.g. tsunamis that arrive without a preceding recession of the water level; earthquakes that strike without animals displaying bizarre or unusual behaviour beforehand; And the choices made now that can protect you in the future-the need to 'get ready' beforehand (especially for insurance and household emergency kits, but also household and section preventative maintenance etc)

From question 2, there is a very high awareness of potential disasters and of civil defence

Recommendation: continue the implementation of a specific CDEM public education/awareness plan for Taranaki, incorporating themes identified through this survey, and pursue the integration of the findings of this study into the National CDEM Education Plan

From questions 3 and 4 (types of disasters and their personal effects), the obvious point of concern is the extremely dismissive attitude towards public health and animal health disasters and their potential consequences. Few people considered a human health pandemic or disease outbreak likely; fewer still considered it could personally affect them. While an animal health disaster has never been part of the community psyche, there has just been extensive (saturation) coverage of a possible H1N1 flu pandemic.

Taranaki CDEM group is also pursuing a higher level of evaluation of the potential for disasters associated with infrastructure failure and with events involving hazardous substances/major fires. While these have a very low level of recognition

within the community as a whole, those particularly involved have indicated a high level of significance to them.

Recommendation: public education to include message re public health risks on the theme: 'next time we may not be so lucky', and to pursue the integration of the findings of this study into the National CDEM Education Plan and the Ministry of Health's public education programmes. Taranaki CDEM is pursuing close co-operation and co-ordination with Asure Quality/Biosecurity NZ re response planning for an animal health disaster, and this would provide a significant opportunity for enhanced public education/awareness around the threats arising from a major animal disease outbreak, for the Taranaki community.

The key factor to come out of responses to Question 5 (what would you do if a disaster struck?) appears to be that most people answered on the basis of instinctive reaction rather than as though they had a well-considered plan of action.

Recommendation: The appropriate course of action for Taranaki CDEM is to emphasize and promote the preparation of a plan, and ensure easy access to a list of action points (eg the Council and 'get ready get through' websites, and refer people to the 'Yellow pages' information) rather than include an overwhelming amount of detail within general messages through the media

It is comforting to see people saying they would check on their friends and neighbours. It is not so comforting that many would leave the area as a first thought. (By 'leaving the area' it is assumed that they were doing so in an unprompted manner rather than anticipating an official evacuation order).

Not surprisingly many people would help themselves and their neighbours, friends and family. This correlates well with question 1, as most people thought that their friends, neighbours and family would be able to help them.

Recommendation: public education concerning disasters to continue the theme of 'you may be on your own', and to strengthen 'in any emergency phone 111 for help'.

Responses to question 7 indicate a lack of appreciation of the inter-dependency of utilities eg a lot of people do not think mobile phones will be affected, when it is however very likely that the network repeater stations will be damaged (storm or earthquake or volcanic ashfall) or the system will be overloaded with traffic.

Recommendation: public education to strengthen awareness of potential for comprehensive failure (through damage or surge demand) of utility services, and of the need to have contingencies in place.

Responses to questions 8-12 show a gap between awareness and preparation. That is, the issue is not education but motivation. This is already recognised within programmes such as 'get ready get thru', where the emphasis is upon trying to get people to actually make preparations rather than just feed information. While the level of preparation within Taranaki appears to be improving slightly, there is still a long way to go.

Recommendation: review CDEM material for motivational aspect. Continue with public education function.

Question 13 (insurance) shows a small percentage who do not have cover. It is conceivable that the percentage without household insurance reflects those who are in rental dwellings, but it could be assumed that almost everyone over the age of 16 owns at least some property, and so the lack of insurance reflects a lack of recognition that they could be personally affected by loss in a disaster.

Insurance cover is not part of the current MCDEM/ 'get ready get thru' message.

Recommendation: advocate amending the 'get ready get thru' message and the guidance in the 'yellow pages'. Discuss with insurance companies

Information sources before and during a disaster (questions 14 and 15) showed a high recognition of the 'yellow pages' and the Taranaki CDEM (before a disaster), and the radio and Taranaki CDEM (during a disaster), and a very low recognition of MCDEM/ 'get ready get thru'. 14% of respondents were not sure where they would receive information from during an emergency. This is despite the message repeated in much CDEM messaging that people should listen to their local radio station. Local radio support during the latest emergency event (Chilean tsunami of 28 February) was extremely good.

Recommendation: continue to foster liaison with local radio media. Continue to re-iterate the theme that Taranaki CDEM group will use local radio stations as the primary means of public messaging during an event. Convey to MCDEM the low awareness of the 'get ready get thru' resource.

8. Conclusions and summary of recommendations

710 people participated in the TEMO preparedness survey and 5 people in the focus group. The purpose of this survey was to determine how prepared the Taranaki Region is in the event of a disaster. This report explains and analyses the various parts of citizen preparedness. Taranaki has improved since the last CDEM survey conducted in 2005, and on many points is better equipped to handle a disaster than other places nationally. Finally, the focus group yielded results on how the Taranaki Regional Council and Taranaki CDEM group can improve ways of preparing citizens for an emergency. By all accounts the CDEM staff, the Taranaki Regional Council staff and the advertising the Central Government do, is getting through to people. Although level of preparedness has improved, the level of awareness and people thinking about what they would do in a disaster has increased marketable.

Recommendation 1: consideration of public education on the theme: ‘the next emergency may not be like the last’, alongside the current message of taking responsibility for yourself and those around you.

Recommendation 2: public education to include advice on warning signs (and their limitations) for natural hazards that individuals can note e.g. tsunamis that arrive without a preceding recession of the water level; earthquakes that strike without animals displaying bizarre or unusual behaviour beforehand; and the choices made now that can protect you in the future-the need to ‘get ready’ beforehand (especially for insurance and household emergency kits, but also household and section preventative maintenance etc)

Recommendation 3: continue the implementation of a specific CDEM public education/awareness plan for Taranaki, incorporating themes identified through this survey, and pursue the integration of the findings of this study into the National CDEM Education Plan.

Recommendation 4: public education to include message re public health risks on the theme: ‘next time we may not be so lucky’, and to pursue the integration of the findings of this study into the National CDEM Education Plan and the Ministry of Health’s public education programmes. Taranaki CDEM is pursuing close co-operation and co-ordination with Asure Quality/Biosecurity NZ re response planning for an animal health disaster, and this would provide a significant opportunity for enhanced public education/awareness around the threats arising from a major animal disease outbreak, for the Taranaki community.

Recommendation 5: The appropriate course of action for Taranaki CDEM is to emphasize and promote the preparation of a plan, and ensure easy access to a list of action points (eg the Council and ‘get ready get through’ websites, and refer people to the ‘Yellow pages’ information) rather than include an overwhelming amount of detail within general messages through the media

Recommendation 6: public education concerning disasters to continue the theme of ‘you may be on your own’, and to strengthen ‘in any emergency phone 111 for help’.

Recommendation 7: public education to strengthen awareness of potential for comprehensive failure (through damage or surge demand) of utility services, and of the need to have contingencies in place.

Recommendation 8: review CDEM material for motivational aspect. Continue with public education function.

Recommendation 9: advocate amending the 'get ready get thru' message and the guidance in the 'yellow pages'. Discuss with insurance companies.

Recommendation 10: continue to foster liaison with local radio media. Continue to re-iterate the theme that Taranaki CDEM group will use local radio stations as the primary means of public messaging during an event. Convey to MCDEM the low awareness of the 'get ready get thru' resource.

Recommendation 11: that the same survey be conducted in 5 years time in a similar manner to this survey. This is to ensure the comparisons between the two surveys.

Glossary

Anthropocentric: regarding the human being as the central fact of the universe

Mean: The most common number

Standard deviation: a measure of dispersion in a frequency distribution, equal to the square root of the mean of the squares of the deviations from the arithmetic mean of the distribution.

Sample size: A smaller amount of the total population, but representative of the total population

Margin of error: The permissible or acceptable deviation from the target or a specific value; an allowance for slight error or miscalculation; an allowance for changing circumstances.

Colloquy: A conversational exchange; dialogue

Confidence level: Is a particular kind of interval estimate of a population parameter

Appendix 1

Information sheet

This research project aims to gather information about the preparedness of residents in Taranaki area, should a disaster occur. This project is funded by the Taranaki Emergency Management and Civil Defence Group. The researcher is Josh Southee, from the Taranaki Regional Council.

A major part of this project involves talking to people about the likelihood of disasters and the means to how they will resolve them or how prepared people believe they are. Your participation is voluntary. The project will involve taking part in a focus group lasting approximately one hour. This will take place at the Taranaki Emergency Management Office on 45 Robe Street, New Plymouth. The discussion will focus on the results of the phone survey, with emphasis on opinions and your description of the implications of the findings from the phone survey.

The focus group will be tape recorded and later transcribed into writing. The information gathered will be stored on a computer so I can analyse the data you provide. Once this is completed the results will be used to write a report on how prepared the region is. This report is due at the end of January.

Your anonymity and confidentiality will be assured throughout. No one apart from the researcher will have access to the information you provide. All tapes and other information will be kept by the researcher in a location that is secure and only accessible to the researcher.

You have the right to:

- Refuse to answer any question, and withdraw from the project at any time.
- Ask any further questions about the research at any time during the course of the research.
- Examine the information that you have provided and amend any part you wish, and ask that certain information not be used.
- Request a copy of any publication or conference presentation resulting from this research.

Thank you for giving consideration to participation in this research.



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Consent form

I consent to take part in a focus group for the research project "Emergency preparedness of residents of Taranaki" conducted by Josh Southee. I am aware that I have the right to refuse to answer any question(s).

I understand that the focus group will be taped and later transcribed in to print and that this information will remain confidential to the researcher. I understand that I am able to access this information at anytime and may request that all or part of this information be deleted, and that I am free to withdraw from the project at any time.

I understand that the report written from my data, but not the data themselves, will be submitted to The Taranaki Regional Council as a component to research on emergency preparedness and that I have the opportunity to comment on the draft report. I reserve to have my name ether included or omitted from the final report, as I see fit.

Date: _____

Signature of participant: _____

Print Name:

I wish to obtain a copy of the draft report: Yes No
 I wish to obtain a copy of the final report: Yes No

Thank you for your time and participation in this research. If you have any queries or concerns about the research or the way it was carried out please feel free to contact the researcher:



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Appendix 2

Phone Conversations Template

This document is designed to provide a guideline on how to talk to people on the phone regarding a phone survey.

It is important that the interviewer speaks clearly and in a tone which people will understand. It is important that the phone conversation does not exceed 15 minutes, the question themselves should take roughly 10 minutes to complete. We need to avoid unnecessary conversation at the beginning and the end of the survey. However, if the interviewee requires further clarification on the question then the interviewer should provide such details. This being said it is important that the interviewer does not give or provoke a type of answer as this will skew the results.

Start the conversation along the following lines (provided as a guide only):

Good morning, my name is (your name here) from the Taranaki Civil Defence and Emergency Management Group. We are conducting a survey to determine how prepared the region is in the event of a disaster. Your participation in the survey is voluntary and the details recorded will be anonymous. The survey should take no longer than approximately 10 -15 minutes. Would you be interested in taking part in the survey? Yes/No if no ask if they want an info pack.

If No then thank the person for their time and hang up.

If yes then proceed with the first question.

At the end of the survey:

Thank you for taking the time to complete the emergency preparedness survey, at anytime you can request information regarding the survey. Your participation is voluntary and we won't use your details for any other purposes than those for this survey. Once again, we appreciate your time and (if requested information then mention that you will get this to them) if you require any further clarification please contact my supervisor Josh Southee free on 0800 900 049.

Thanks again (your name)

Appendix 3

Review of survey design

This section of the report discusses the strengths and weakness of the survey. This section also discusses how the survey could be improved in future.

Strengths

As mentioned in 3.1, the margin of error is $\pm 3.67\%$ based on a 95% confidence interval. This is considered to be an acceptably small margin of error percentage. The purpose of repeated surveys in future is to look at significant changes in public awareness rather than small fluctuations.

Phone surveys are widely used throughout social marketing and social research disciplines. They combine the personal touch of the interviewer, with the lower administrative cost format of the telephone as distinct from face-to-face interviews (McLafferty 2003).

Internet surveys allow access to people who might not be accessible via a phone interview format.

Focus groups allow for in-depth discussions around the results of the survey. Reasoning of participants can be probed to discover the rationale behind particular attitudes or responses. The group was small enough for people to feel comfortable, and it brings meaning to the results of the survey by adding a qualitative field to a highly quantitative survey (Longhurst 2003; Pearson *et al.* 2009).

Weaknesses

Phone surveys are limited to short questionnaires and with fixed-response questions. There are the issues of missing people who do not have telephones, and also the time of day at which people are called. It is noted the survey as conducted provided a greater hit rate with people aged 70 and over. In some cases the interviewer may have entered a detail in the system incorrectly; there is no way to know if this has happened, nor whether it can be prevented.

The Internet survey did not generate as much interest as was anticipated. It was not highly promoted, and also relies on an active commitment to engage. The web survey generated 10 results. People without access to the internet cannot partake in the survey (McLafferty 2003). The web survey was in the same format as a postal survey.

Focus groups can be daunting in a large sample. To counter this the group was deliberately restricted to a small size (Bryman 2004; Longhurst 2003; Pearson *et al.* 2009). Small groups can take a while to conduct and to transcribe. Selection of participants in this situation needs careful consideration with regard to purpose.

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