



Versus
RESEARCH

Emergency Management Otago Preparedness Survey Results

June 2018



**Emergency
Management Otago**

Te Rākau Whakamarumarū Ōtākou

Summary of Findings



BACKGROUND AND METHOD

Emergency Management Otago are responsible for planning, co-ordinating, and delivering civil defence and emergency management activities across the Otago region. Emergency Management Otago were interested in determining hazard awareness and levels of preparedness amongst Otago residents. To this end, Versus Research were engaged to conduct a survey with residents from across the Otago region.

The questionnaire was designed in conjunction with Emergency Management Otago, and was, on average, 12 minutes in duration.

To ensure responses were captured from a range of Otago residents, a mixed method approach to sample sourcing was used. The primary sample source was the electoral roll, with n=12,000 postal invitations sent to residents living in Otago inviting them to complete the survey online. The survey was also distributed by Emergency Management Otago, through local councils social media pages, and through paid advertisements on social media run by Versus. Paper copies of the survey were also supplied to residents who were unable to complete the survey online.

Overall, n=1,962 responses were collected, with a total of n=1,700 responses randomly selected and reported on. Weights have been applied to these results to ensure they are representative of the age and gender populations within the Otago region.

The following is a summary of these results.



HAZARD AND RISK AWARENESS

The primary hazards and risks residents mention will directly affect them, and their family, are an earthquake (83%) or a flood (73%). When asked about specific effects natural hazards and risks could have on residents lives, an earthquake is consistently mentioned as the hazard which would affect them the most. A tsunami appears to

be the hazard residents think will affect them the least. Forty-four per cent of residents rate an earthquake as the most likely natural hazard or risk which would affect their everyday life. Following this, residents mention storm (21%), flood (16%), and fire (12%) as the most likely events to affect their everyday life.

When asked what the correct action to take in an earthquake is, 48% of residents mention getting under or next to something and covering your head; a further 37% mention stop, drop/ cover, hold is the correct action. The majority of residents (82%) mention the correct action is to move to high ground when you are near the coast and there is an earthquake. Eighty-eight per cent of residents think they will definitely (35%) or might (53%) experience a severe earthquake in their lifetime.

Thirty-three per cent of residents in Dunedin, Clutha, and Waitaki are aware of the tsunami evacuation zone maps, with a further 78% of these residents mentioning they have checked the evacuation map. Seventy-four per cent of these residents correctly identified the red zone, while 50% (each) correctly identified the orange and yellow zones.

Residents within specific areas of Central Otago and Queenstown-Lakes districts were also asked if they have seen the community response plan; 22% of these residents indicate they have.



PREPAREDNESS FOR AN EMERGENCY

Overall, 72% of residents think they are somewhat (61%) or very (11%) prepared for an emergency. Reasons for being prepared revolve around having water (34%), an emergency kit, grab bag, or plan (27%), and tinned or dried food (27%). Reasons for being unprepared appear to pertain to not having an emergency kit prepared, but having emergency supplies (32%) and having no plan or emergency kit (27%).

Forty-five per cent of residents indicate they are likely (35%) or very likely (10%) to take further steps to prepare for an emergency in the next six months.



INFORMATION AND COMMUNICATION

Residents who are intending to take steps to prepare in the next six months mention they are going to update or improve their emergency kit or grab bag (28%), organise an emergency kit (27%), and build or update their emergency plans for their household (21%). When asked what would motivate those residents who are not intending to take further steps to prepare, an earthquake (18%), a warning or an extreme weather forecast (14%), an emergency or a disaster near home (10%), or information on how to prepare (10%) are the primary mentions made as motivations.

When asked about specific preparations residents have made, 68% (each) of residents mention they have acquired an alternative means of cooking and storing non-perishable food and other essential items. A further 56% of residents mention they have stored water and 41% have made a plan about what to do if they are at home.

Thirty-six per cent of residents mention their workplace has made preparations to keep operating during an emergency.

Almost all (89%) residents agree (34%) or strongly agree (55%) that it is their responsibility to ensure their family or household is prepared for an emergency. A further 87% of residents agree (34%) or strongly agree (53%) that it is their responsibility to look after their family or household for at least three days in an emergency. Almost all (95% each) residents mention they are likely to check on family members, neighbours, and others in the community during or after an emergency.

Thirty-three per cent of residents mention they received the test emergency mobile alert last November. A further 15% of residents mention someone in their household received the alert.

Almost half (41%) of residents know the location of civil defence centres in their community. Of pet owners in the region, 55% have made provisions for their pets in their emergency plan, while 57% of livestock owners have made provisions for their livestock in their emergency plan.

When asked about where residents would look for information on how to prepare, 60% mention they would go to the Ministry of Civil Defence website. A further 50% (each) mention their local council's website and the radio. During an emergency the majority of residents (80%) would listen to the radio to get information. Following this, residents would go to civil defence centres (62%) or get information through text alerts (54%) during an emergency.

More than half (58%) of residents have seen or heard advertising on radio or TV about being prepared for emergencies in the past six months.



In terms of specific advertising (shown above), 80% of residents have seen the 'drop, cover, hold' advertisement, with a further 68% mentioning they have seen the 'long or strong, get gone' advertisement.



Around one quarter (23%) of residents have seen one of the advertisements shown above.

Contents

Background and Objectives	5
Sample	6
How to Read This Report	7
Hazard and Risk Awareness	9
Preparedness for an Emergency	37
Information and Communication	68
Area Summaries	81
Discussion of Findings	95
Appendix	99

Background and Objectives

Project Background

Emergency Management Otago are responsible for the planning, co-ordination, and delivery of civil defence and emergency management activities across the Otago region. Emergency Management Otago aim to improve resilience to disasters, and as such were interested in ascertaining levels of hazard awareness and preparedness amongst Otago residents. To this end, Emergency Management Otago engaged Versus Research (Versus) to conduct research with Otago residents. The primary objectives of this research included:

- establish baseline measures of hazard awareness, risk acknowledgement, and personal preparedness;
- barriers to preparing for an emergency, and;
- ensuring a large cross section of Otago residents were represented within this research.

Method

A mixed method approach to sample sourcing was used for this project; this is primarily to ensure that the final sample is representative of the region as a whole and that a robust sample size is collected. A total of n=1,962 surveys were collected from across all data collection methods, with n=1,700 used for the analysis within this report. Responses that were analysed were randomly selected to ensure that the final sample was representative of the population in the region. Sample sources for data collection comprised of the following methods:

- Electoral roll: this was the primary sample source for this project, with n=12,000 invitations sent to Otago residents. Each invite included a link to the survey for residents to complete the survey online. Any residents unable to complete the survey online were able to request a paper copy be sent to them.
- Emergency Management Otago: the link was distributed by Emergency Management Otago across a range of sites, including their Facebook page and website.
- Local authorities: local councils within the region also posted the link to their Facebook pages.
- Paid social media advertisements: Versus Research ran paid advertisements on social media.

The following is a breakdown of the number of surveys collected from each sample source:

Table 1: Sample Source Summary

Sample source	Number of surveys collected	Number of surveys used
Electoral roll	n=1,576 (92% completed online, 8% returned for data entry)	n=1,346
Online link distributed by Emergency Management Otago and local authorities	n=243	n=225
Paid social media advertisements	n=143	n=129
Total	n=1,962	n=1,700

Social media was included within the data collection for this project to ensure that a wide cross section of residents were reached within this project. The questionnaire was designed in conjunction with Emergency Management Otago and was, on average, 12 minutes in duration.

Interviewing for this project was completed over a month, between the 24th of April and 23rd of May 2018. A participation incentive of four \$200 grocery vouchers was also offered to all participants.

Sample

A total sample size of n=1,700 is reported within this document, yielding a margin of error of +/-2.4% at the 95% confidence interval. To ensure a sufficient sample from each district was achieved, and results across the districts were comparable, a set number of surveys was collected from each district therefore meaning the final sample is not proportionate to the Otago region as a whole. The table below shows the final sample achieved for this project, with the associated margin of error for each group.

Table 2: Area Sample and Margin of Error

District	Proportion of Sample	Number of Surveys Collected	Margin of Error
Central Otago	17%	n=300	+/- 5.66%
Clutha	17%	n=300	+/- 5.66%
Dunedin	30%	n=500	+/- 4.38%
Waitaki	17%	n=300	+/- 5.66%
Queenstown-Lakes	17%	n=300	+/- 5.66%

Weighting

Age and gender weightings have been applied to the final data set for this project. Weighting ensures that specific demographic groups are neither under- nor over-represented in the final data set and that each group is represented as it would be in the population. Weighting gives greater confidence that the final results are representative of the Otago Region population overall and are not skewed by a particular demographic group. The proportions used for the gender and age weights were taken from the 2013 Census (Statistics New Zealand), these are shown in the table below.

Table 3: Age and Gender Weightings

	Otago Population	Number of Surveys Collected	Proportion of Sample
Residents aged 18-29	24%	n=225	13%
Residents aged 30-44	23%	n=427	25%
Residents aged 45-64	33%	n=679	40%
Residents aged 65+	20%	n=369	22%
Male residents	48%	n=656	39%
Female residents	52%	n=1,038	61%
Gender diverse residents	-	n=6	0%

How To Read This Report

Summary of Findings

83% aware that Earthquakes could directly affect them and their family



44% think Earthquakes are most likely to affect their everyday life



48% think the correct action to take during an earthquake is to get under or next to something and cover your head.



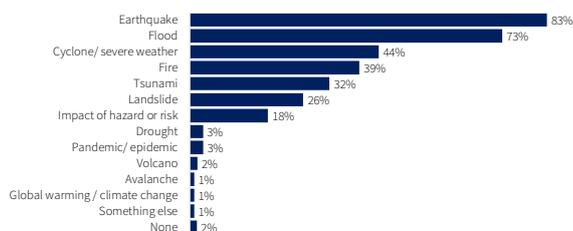
Summary of Findings

A summary of the findings, at a total level, is shown at the beginning of each section. This shows key findings from within each section.

Natural Hazards and Risks

Earthquake (83%), flood (73%), cyclone or severe weather (44%), fire (39%), tsunami (32%), and landslide (26%) are the natural hazards and risks residents are most aware of that could directly affect them and their family. Interestingly, 18% of residents mentioned an impact of the hazard or risk, such as power cuts, inability to get to town, or reach medical help. On average, residents mentioned just over three hazards or risks each and almost all (98%) mention at least one natural hazard or risk.

Chart 1: Awareness of Natural Hazards and Risks



DEMOGRAPHIC DIFFERENCES

More likely to mention:



Age

Under 30: Tsunami (42%) and landslide (32%).
30-44: Flood (81%), fire (45%), and landslide (33%).
65+: Impact of hazard or risk (25%).



Tenure in area

>1: Tsunami (41%) and avalanche (3%).
1-5 years: None (3%).



Gender

Male: Pandemic/epidemic (4%) and none (3%).



Urban/ rural

Urban: Earthquake (86%) and tsunami (36%).
Rural: Drought (5%).



Rural living

Lives on lifestyle block: Fire (51%).
Small rural community: Tsunami (34%).



Country of birth

Born in NZ: Flood (74%).
Outside of NZ: Landslide (33%).

Emergency Management Otago - Preparedness Survey 2018

Total Level Results

All results are shown within charts at the total level from all residents. Commentary associated with the results is shown above the chart on each page.

Significance Testing of Demographic Differences

Statistically significant demographic differences are shown under the chart. These highlight differences shown at the total level within sub-groups.

Significance testing is used to determine whether the difference between two results is statistically significant or not, i.e., to determine the probability that an observed difference occurred as a result of chance.

Significance differences shown within this section are sub-group results which are significantly higher than the total result.

Sub-groups are consistent across the report. Shown below are the demographic groups included, as well as the grouping within these.

DEMOGRAPHIC DIFFERENCES



Age

Under 30
 30-44
 45-64
 65+



Tenure in area

>1 year
 1-5 years
 5+ years



Gender

Male
 Female



Urban/ rural

Urban
 Rural



Rural living

On a lifestyle block
 In small rural community
 On farm



Country of birth

Born in NZ
 Born outside of NZ

How To Read This Report

Area Results

Results are also shown at an area level. Results shown on these pages varies depending on the question type.

All area results are also shown in the appendix of this report.

Significance Testing of Area Results

Significance testing has also been applied to the area results. Significance testing within these pages shows there is a significant difference between the total result and the result for an area.

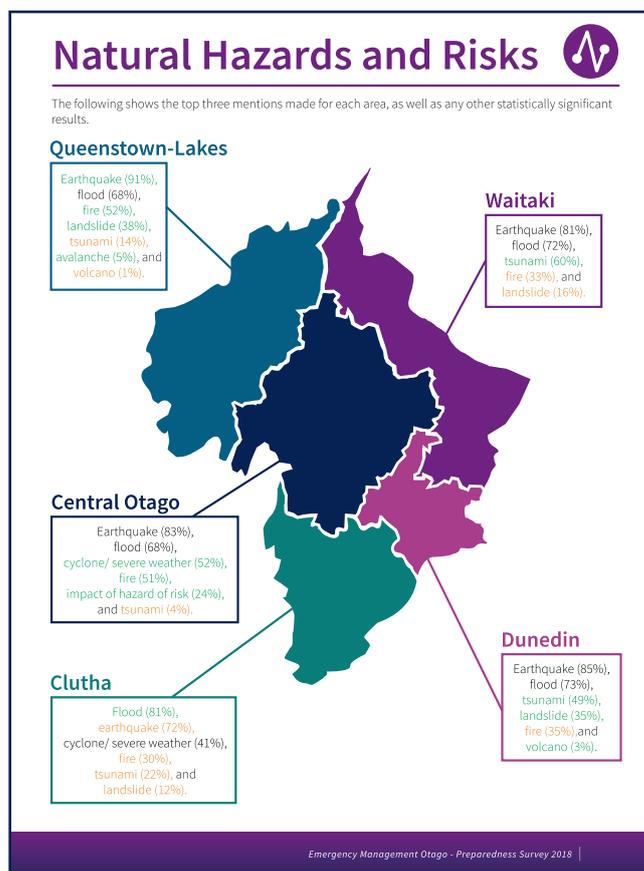
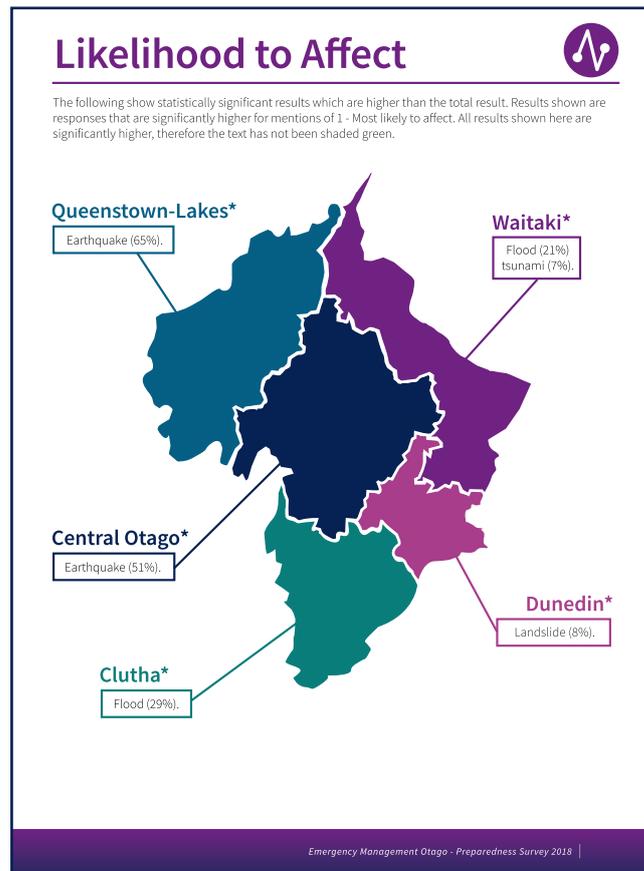
Significance testing is shown in two ways within these pages. If all results shown are significant, there is a * next to the area names. An example of this type of significant testing reporting is shown to the right.

Within other pages, significance testing is shown using font colours. **Green text** indicates the difference is significantly higher than the total results, while **orange text** indicates the result is significantly lower than the total result. Within these pages, any text not coloured green or orange is not a statistically significant result. An example of this type of significant testing reporting is shown to the right.

Notes on Reporting

The following page highlights how to read the findings within this report. Primary things to note within this report are:

- Not all charts add up to 100%, this is due to rounding and multiple choice questions.
- Not all respondents answered all questions as respondents who completed a paper version of the survey were able to skip over questions.





Hazard and

Risk Awareness

Awareness, Impacts, and Affects

Summary of Findings

83% aware that
Earthquakes
could directly affect them
and their family



44% think
Earthquakes
are most likely to
affect their
everyday
life



48% think the
correct action
to take during an
earthquake is to **get under
or next to something** and
cover your head



82% think the
correct action
to take **immediately
after an earthquake**
when **near the coast** is to
move to high ground



35% think there
will **definitely** be a
severe earthquake
in their lifetime



33% are aware
of tsunami
evacuation
zone maps*



78% checked the
**evacuation
map***



74% correctly
identified the **red
zone**, **50%**
correctly identified
the **orange zone**,
and **50%** correctly
identified the
yellow zone*

22% have
seen the
**community
response
plan****



*Only asked of Waitaki, Dunedin, and Clutha residents.

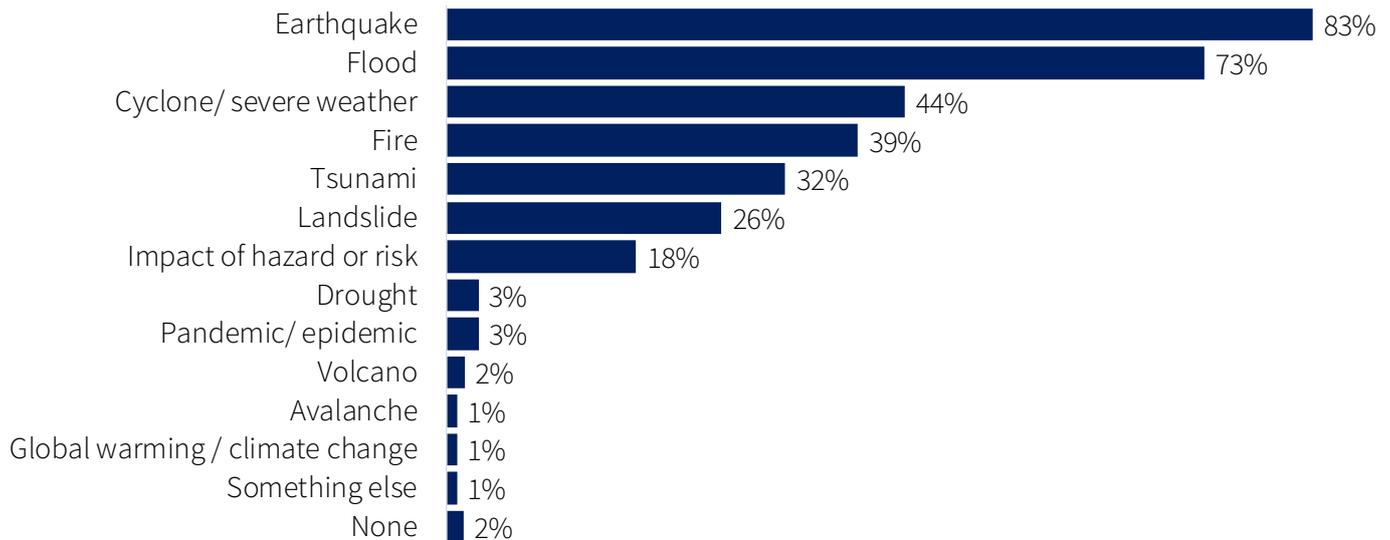
** Only asked of specific Queenstown-Lakes and Central Otago residents.

Natural Hazards and Risks



Earthquake (83%), flood (73%), cyclone or severe weather (44%), fire (39%), tsunami (32%), and landslide (26%) are the natural hazards and risks residents are most aware of that could directly affect them and their family. Interestingly, 18% of residents mentioned an impact of the hazard or risk, such as power cuts, inability to get to town, or reach medical help. On average, residents mentioned just over three hazards or risks each and almost all (98%) mention at least one natural hazard or risk.

Chart 1: Awareness of Natural Hazards and Risks



DEMOGRAPHIC DIFFERENCES

More likely to mention:



Age

Under 30: Tsunami (42%) and landslide (32%).
30-44: Flood (81%), fire (45%), and landslide (33%).
65+: Impact of hazard or risk (25%).



Tenure in area

>1: Tsunami (41%) and avalanche (3%).
1-5 years: None (3%).



Gender

Male: Pandemic/ epidemic (4%) and none (3%).



Urban/ rural

Urban: Earthquake (86%) and tsunami (36%).
Rural: Drought (5%).



Rural living

Lives on lifestyle block: Fire (51%).
Small rural community: Tsunami (34%).



Country of birth

Born in NZ: Flood (74%).
Outside of NZ: Landslide (33%).

Natural Hazards and Risks



The following shows the top three mentions made for each area, as well as any other statistically significant results.

Queenstown-Lakes

Earthquake (91%),
flood (68%),
fire (52%),
landslide (38%),
tsunami (14%),
avalanche (5%), and
volcano (1%).

Waitaki

Earthquake (81%),
flood (72%),
tsunami (60%),
fire (33%), and
landslide (16%).

Central Otago

Earthquake (83%),
flood (68%),
cyclone/ severe weather (52%),
fire (51%),
impact of hazard or risk (24%),
and tsunami (4%).

Clutha

Flood (81%),
earthquake (72%),
cyclone/ severe weather (41%),
fire (30%),
tsunami (22%), and
landslide (12%).

Dunedin

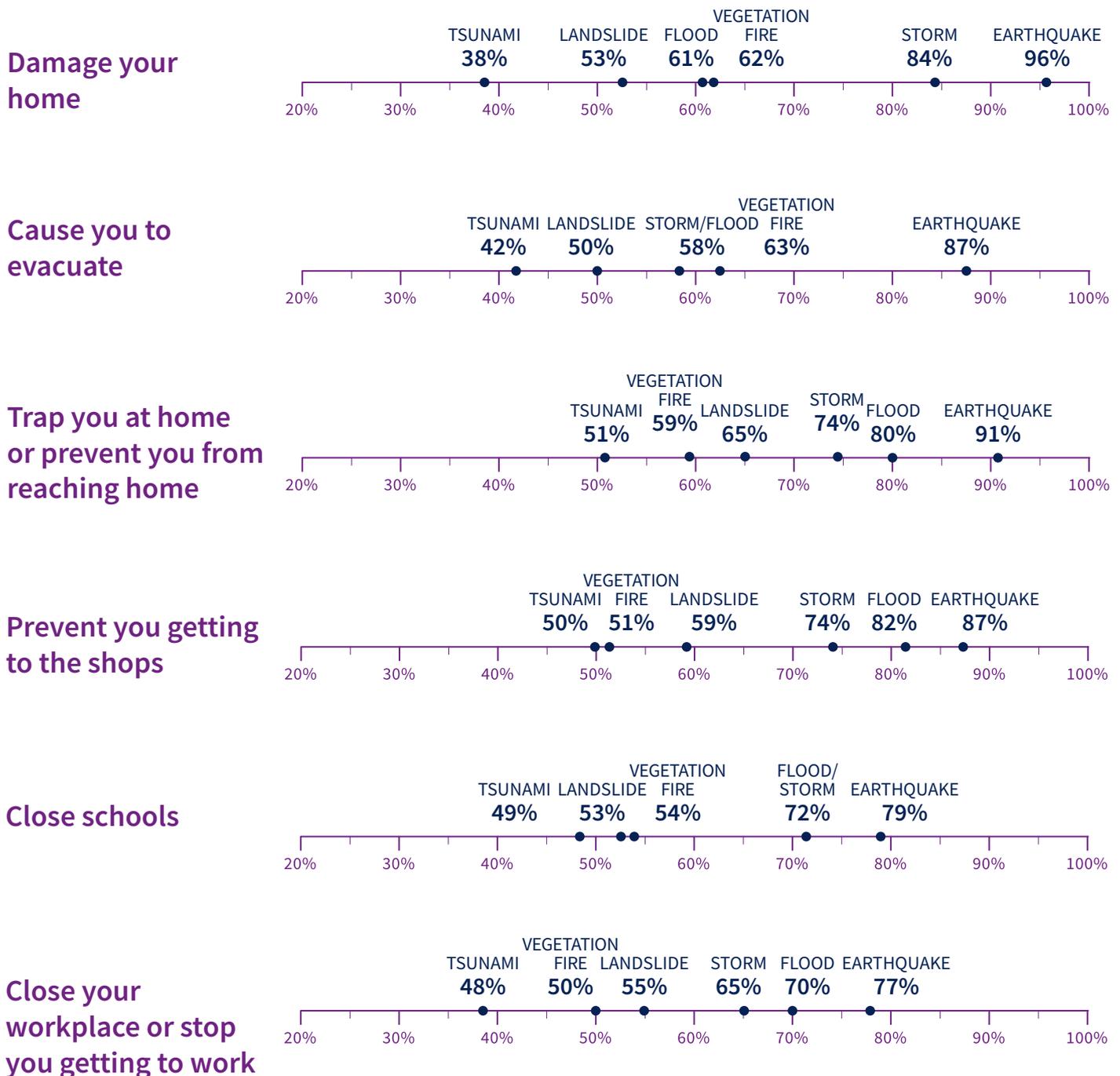
Earthquake (85%),
flood (73%),
tsunami (49%),
landslide (35%),
fire (35%), and
volcano (3%).

Effects: Personal



When looking at the effects each natural hazard or risk would have on residents, earthquake is the hazard residents mention will have the biggest impact on them personally, with almost all (96%) indicating an earthquake would cause damage to their home and the majority (91%) indicating they think an earthquake would trap them at home, or prevent them from reaching home. Flood and storm appear to be the next natural hazards and risks residents are concerned about affecting them personally, while tsunami is a hazard residents appear least concerned about impacting them personally. Demographic differences are shown overleaf.

Chart 2: Effects of Natural Hazard or Risk - Personal



Effects: Personal



DEMOGRAPHIC DIFFERENCES

More likely to mention:



Age

- Under 30:** Damage your home - flood (72%), landslide (62%), and tsunami (52%).
Cause you to evacuate - flood (67%), tsunami (59%), and landslide (57%).
Trap you at home or prevent you reaching home - landslide (71%) and tsunami (66%).
Prevent you getting to the shops - flood (87%) and tsunami (62%).
Close your workplace or stop you getting to work - earthquake (89%), flood (80%), storm (72%), tsunami (67%), and landslide (65%).
- 30-44:** Damage your home - storm (89%) and vegetation fire (68%).
Cause you to evacuate - vegetation fire (69%), flood (63%), and landslide (55%).
Trap you at home or prevent you reaching home - earthquake (94%), flood (87%), landslide (70%), and vegetation fire (67%).
Prevent you getting to the shops - flood (85%), landslide (66%), and vegetation fire (58%).
Close your workplace or stop you getting to work - earthquake (88%), flood (84%), storm (76%), landslide (66%), vegetation fire (60%), and tsunami (55%).
- 45-64:** Damage your home - earthquake (98%) and storm (87%).
Trap you at home or prevent you reaching home - storm (78%).
Prevent you getting to the shops - earthquake (90%).
Close your workplace or stop you getting to work - earthquake (83%), flood (75%), storm (71%), and vegetation fire (55%).



Tenure in area

- >1 year:** Damage your home - tsunami (51%).
Cause you to evacuate - earthquake (94%), vegetation fire (73%), flood (69%), and tsunami (60%).
Prevent you getting to the shops - tsunami (63%).
Close your workplace or stop you getting to work - earthquake (89%), storm (79%), flood (74%), landslide (68%), and tsunami (64%).
- 1-5 years:** Damage your home - landslide (57%).
Cause you to evacuate - flood (62%) and landslide (54%).
Close your workplace or stop you getting to work - earthquake (82%), flood (74%), and landslide (59%).



Gender

- Female:** Damage your home - flood (66%) and tsunami (43%).
Cause you to evacuate - vegetation fire (65%), flood (62%), and tsunami (45%).
Trap you at home or prevent you reaching home - vegetation fire (62%).
Prevent you getting to the shops - tsunami (53%).

Effects: Personal



DEMOGRAPHIC DIFFERENCES

More likely to mention:



Urban/ rural

Urban: Damage your home - flood (64%), tsunami (42%), and landslide (57%).

Cause you to evacuate - earthquake (90%), flood (61%), storm (61%),
landslide (54%), and tsunami (47%).

Trap you at home or prevent you reaching home - tsunami (55%).

Prevent you getting to the shops - tsunami (53%).

Close your workplace or stop you getting to work - earthquake (79%),
storm (67%), and tsunami (53%).

Rural: Damage your home - vegetation fire (68%).

Cause you to evacuate - vegetation fire (67%).

Trap you at home or prevent you reaching home - flood (84%) and vegetation fire (66%).

Prevent you getting to the shops - flood (86%) and vegetation fire (60%).



Rural living

On a lifestyle block: Damage your home - vegetation fire (74%).

Prevent you getting to the shops - earthquake (91%).

Close your workplace or stop you getting to work - earthquake (77%).

In small rural community: Damage your home - flood (69%),

landslide (53%), and tsunami (43%).

Cause you to evacuate - earthquake (87%), flood (69%), storm (60%),
landslide (50%), and tsunami (45%).

Trap you at home or prevent you reaching home - flood (88%),
landslide (72%), and tsunami (52%).

Prevent you getting to the shops - tsunami (51%).

Close your workplace or stop you getting to work - landslide (60%) and tsunami (46%).



Country of birth

Born in NZ: Cause you to evacuate - storm (60%).

Trap you at home or prevent you reaching home -
flood (82%) and storm (75%).

Prevent you getting to the shops - flood (83%) and storm (75%).

Close your workplace or stop you getting to work - flood (71%).

Effects: Personal



The following show statistically significant results which are higher than the total result. All results shown here are significantly higher, therefore the text has not been shaded green.

Queenstown-Lakes*

Waitaki*

Damage your home - vegetation fire (73%).
Cause you to evacuate - earthquake (92%) and vegetation fire (75%).
Trap you at home or prevent you reaching home - earthquake (95%), landslide (73%), and vegetation fire (71%).
Prevent you getting to the shops - earthquake (92%), landslide (69%), and vegetation fire (62%).
Close schools - vegetation fire (60%).
Close your workplace or stop you getting to work - landslide (63%) and vegetation fire (60%).

Damage your home - tsunami (54%).
Cause you to evacuate - tsunami (57%).
Trap you at home or prevent you reaching home - tsunami (67%).
Prevent you getting to the shops - tsunami (74%).
Close schools - tsunami (58%).
Close your workplace or stop you getting to work - tsunami (58%).

Central Otago

Dunedin*

No significant differences noted.

Clutha*

Trap you at home or prevent you reaching home - flood (89%).
Prevent you getting to the shops - flood (89%).
Close schools - flood (79%).

Damage your home - landslide (67%), vegetation fire (67%), and tsunami (50%).
Cause you to evacuate - storm (64%), landslide (63%), and tsunami (57%).
Trap you at home or prevent you reaching home - landslide (71%) and tsunami (68%).
Prevent you getting to the shops - tsunami (67%) and landslide (64%).
Close schools - earthquake (83%), flood (78%), storm (77%), tsunami (70%), landslide (63%), and vegetation fire (59%).
Close your workplace or stop you getting to work - earthquake (83%), flood (76%), tsunami (71%), storm (70%), and landslide (62%).

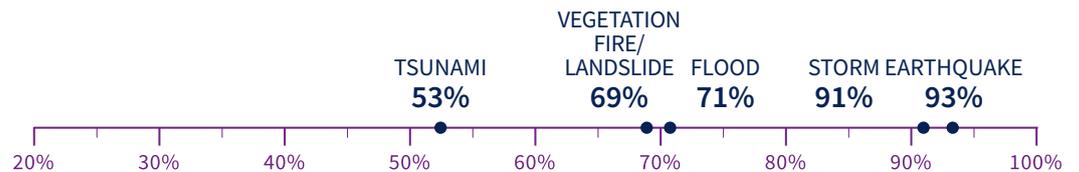
Effect: Infrastructure



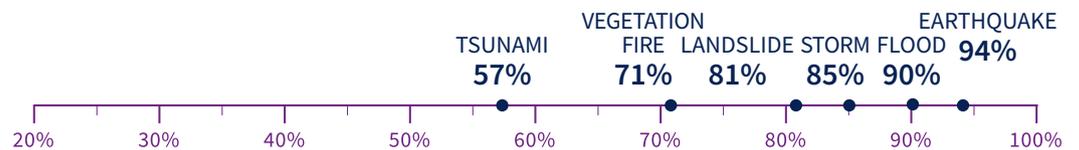
When looking at the effects each natural hazard or risk could have on infrastructure, earthquake is still the hazard most residents mention would impact infrastructure with more than 90% of residents indicating an earthquake would effect all of the infrastructure mentioned. Tsunami and vegetation fire appear to be less of a concern to infrastructure to residents, particularly in regards to water supply and sewerage systems. Demographic differences are shown overleaf.

Chart 3: Effects of Natural Hazard or Risk - Infrastructure

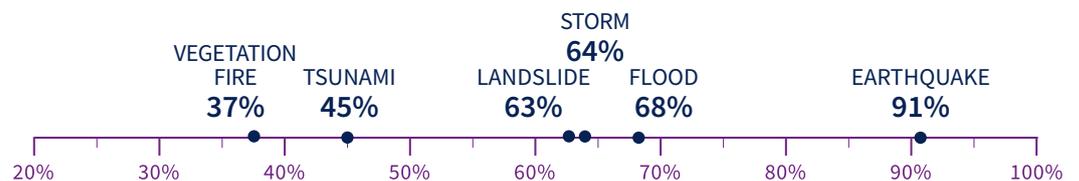
Cut electricity



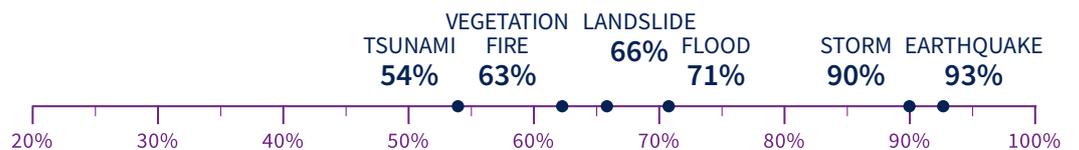
Block roads/ disrupt your travel



Cut your water supply



Disrupt phone and internet services



Damage your sewerage system



Effect: Infrastructure



DEMOGRAPHIC DIFFERENCES

More likely to mention:



- Under 30:** Cut electricity - tsunami (68%).
Block roads/ disrupt your travel - tsunami (67%).
Cut your water supply - tsunami (58%).
Disrupt phone and internet services - tsunami (68%).
Damage your sewerage system - flood (76%), storm (63%), and tsunami (55%).
- 30-44:** Cut electricity - earthquake (96%), flood (75%), landslide (75%), and vegetation fire (74%).
Block roads/ disrupt your travel - flood (96%), landslide (90%), storm (90%), and vegetation fire (82%).
Cut your water supply - flood (74%), landslide (70%), and vegetation fire (42%).
Disrupt phone and internet services - storm (93%), flood (76%), and landslide (71%).
Damage your sewerage system (96%), flood (75%), and storm (62%).
- 45-64:** Cut electricity - earthquake (95%) and vegetation fire (73%).
Block roads/ disrupt your travel - earthquake (96%) and vegetation fire (75%).



Tenure in area

- >1 year:** Cut electricity - flood (79%) and tsunami (66%).
Block roads/ disrupt your travel - tsunami (67%).
Cut your water supply - flood (77%) and tsunami (59%).
Disrupt phone and internet services - tsunami (67%).
Damage your sewerage system - earthquake (97%), flood (78%), and tsunami (54%).
- 1-5 years:** Block roads/ disrupt your travel - landslide (85%).
Damage your sewerage system - landslide (60%).



Gender

- Female:** Cut your water supply - vegetation fire (42%).
Damage your sewerage system - flood (73%), tsunami (48%), and vegetation fire (28%).

Effect: Infrastructure



DEMOGRAPHIC DIFFERENCES

More likely to mention:



Urban/ rural

Urban: Cut electricity - earthquake (94%), landslide (71%), and tsunami (58%).

Block roads/ disrupt your travel - tsunami (62%).

Cut your water supply - earthquake (95%), flood (73%), landslide (68%), storm (68%), and tsunami (50%).

Disrupt phone and internet services - earthquake (94%), landslide (69%), and tsunami (59%).

Damage your sewerage system - earthquake (96%), flood (75%), landslide (62%), storm (65%), tsunami (50%), and vegetation fire (27%).

Rural: Cut electricity - vegetation fire (74%).



Rural living

On a lifestyle block: Block roads/ disrupt your travel - earthquake (96%) and vegetation fire (79%).

In small rural community: Cut your electricity - flood (76%), landslide (71%), and tsunami (53%).

Block roads/ disrupt your travel - tsunami (58%).

Cut your water supply - earthquake (89%), flood (70%), storm (65%), landslide (63%), tsunami (43%), and vegetation fire (42%).

Disrupt phone and internet services - landslide (70%) and tsunami (53%).

Damage your sewerage system - earthquake (92%), flood (77%), storm (54%), landslide (51%), tsunami (43%), and vegetation fire (28%).



Country of birth

No significant differences noted.

Effect: Infrastructure



The following show statistically significant results which are higher than the total result. All results shown here are significantly higher, therefore the text has not been shaded green.

Queenstown-Lakes*

Cut electricity - earthquake (96%) and landslide (77%).
Block roads/ disrupt your travel - earthquake (98%), landslide (89%), and vegetation fire (80%).
Cut your water supply - earthquake (97%), landslide (73%), and vegetation fire (46%).
Disrupt phone and internet services - earthquake (97%), landslide (73%), and vegetation fire (72%).
Damage your sewerage system - earthquake (97%), landslide (66%), and vegetation fire (35%).

Waitaki*

Cut electricity - tsunami (69%).
Block roads/ disrupt your travel - tsunami (75%).
Cut your water supply - tsunami (60%).
Disrupt phone and internet services - tsunami (69%).
Damage your sewerage system - tsunami (58%).

Central Otago

No significant differences noted.

Clutha*

Block roads/ disrupt your travel - flood (95%).

Dunedin*

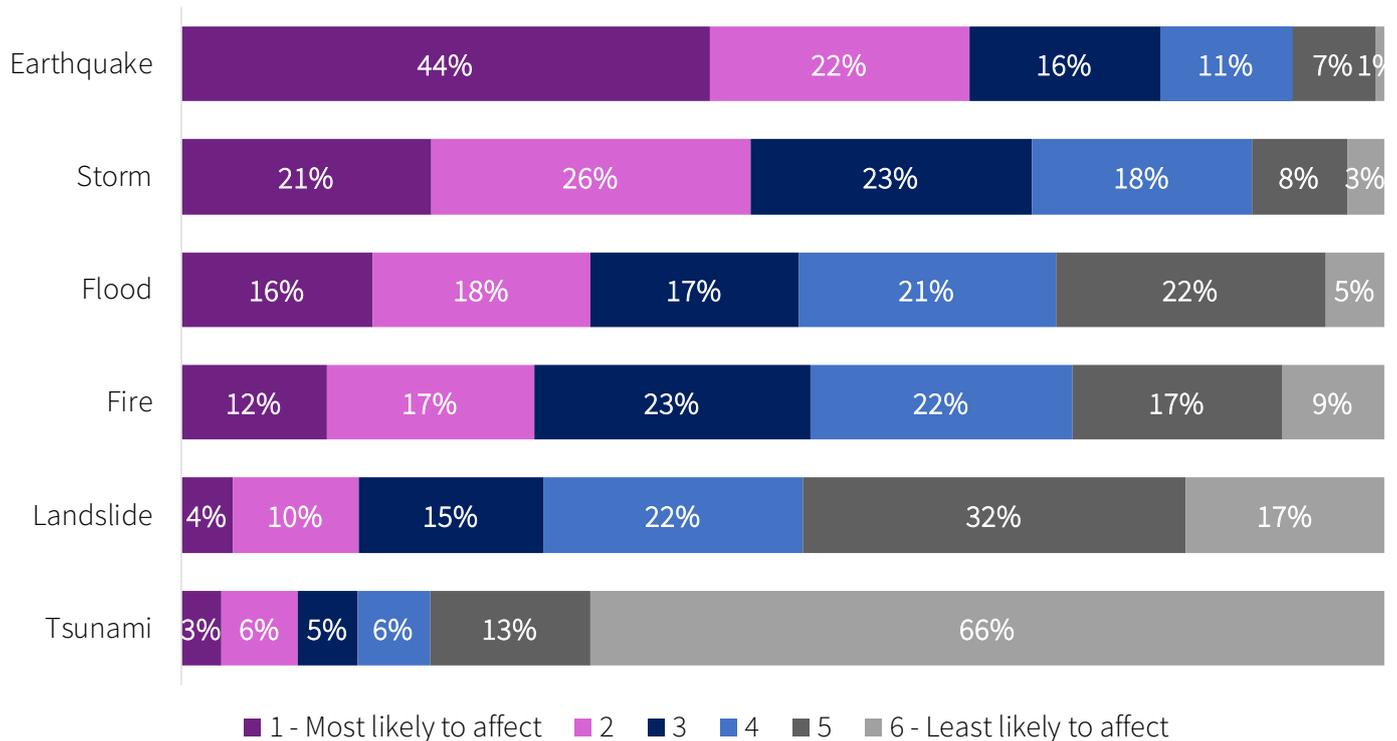
Cut electricity - earthquake (95%), landslide (74%), and tsunami (71%).
Block roads/ disrupt your travel - landslide (86%) and tsunami (76%).
Cut your water supply - landslide (72%) and tsunami (62%).
Disrupt phone and internet services - landslide (74%) and tsunami (70%).
Damage your sewerage system - earthquake (95%), flood (73%), landslide (69%), storm (66%), and tsunami (61%).

Likelihood to Affect



When asked to rank the likelihood of natural hazards and risks affecting their everyday life, almost half (44%) of residents indicate an earthquake is most likely to affect them personally if they are at home. At a lower level, storm (21%), flood (16%), and fire (12%) are also mentioned as the natural hazard or risk most likely to affect residents personally. Notably, 66% of residents mention a tsunami is the least likely event to affect them. Demographic differences are shown overleaf.

Chart 4: Likelihood of Personally Affecting



DEMOGRAPHIC DIFFERENCES

Significant differences for mentions of 1 - Most likely to affect:



Age

30-44: Storm (25%).
65+: Earthquake (50%).



Tenure in area

No significant differences noted.



Gender

No significant differences noted.



Urban/ rural

Urban: Earthquake (48%).
Rural: Flood (22%).



Rural living

On farm: Storm (32%).



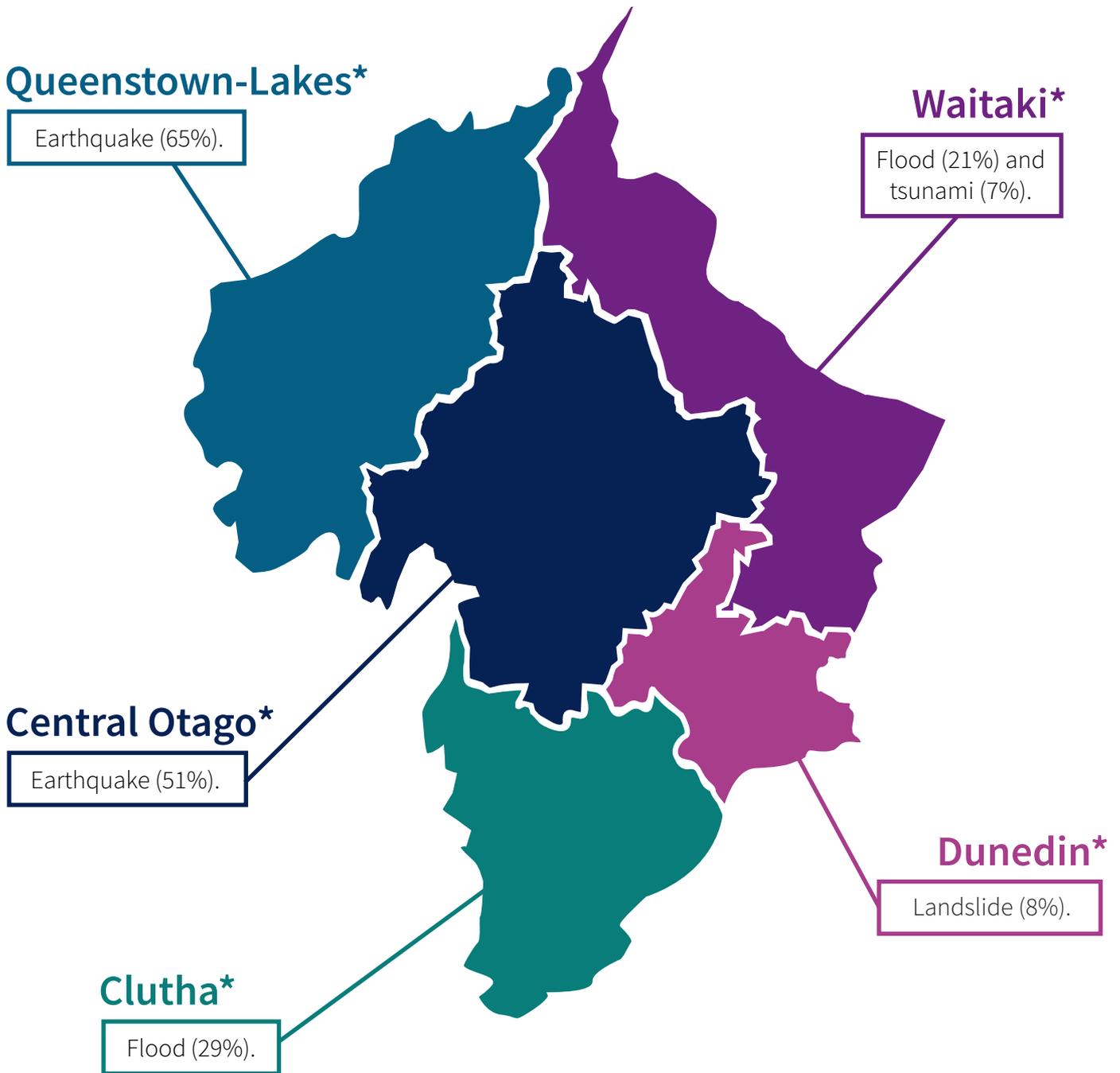
Country of birth

No significant differences noted.

Likelihood to Affect



The following show statistically significant results which are higher than the total result. Results shown are responses that are significantly higher for mentions of 1 - Most likely to affect. All results shown here are significantly higher, therefore the text has not been shaded green.

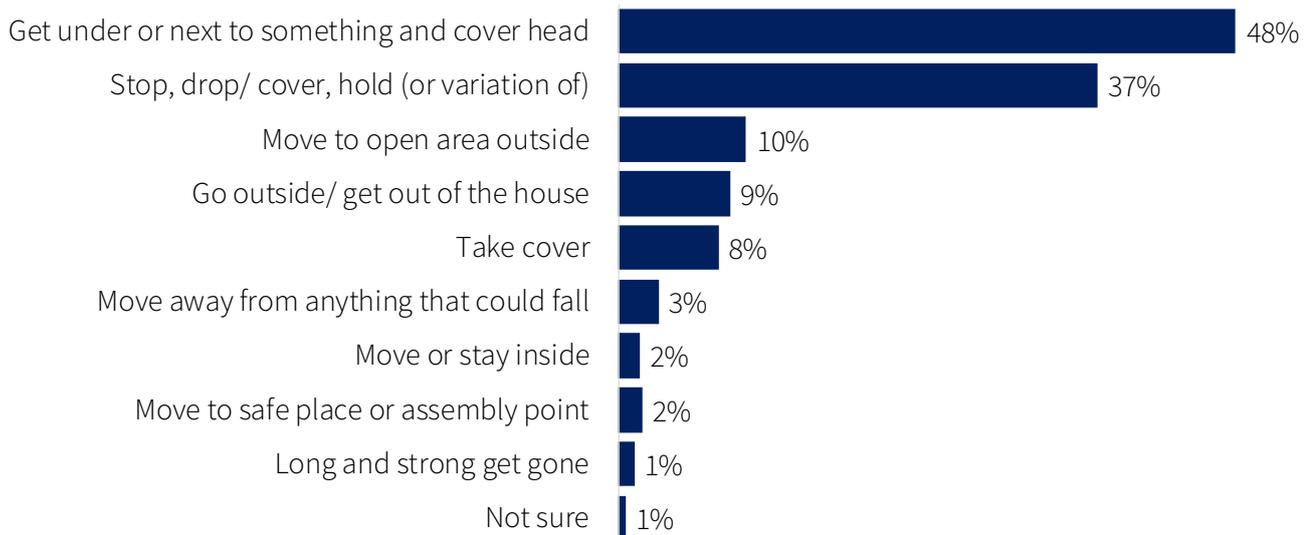


Earthquakes



Almost half (48%) of residents mention the need to get under or next to something and cover your head is the correct action to take during an earthquake. A further 37% of residents mention stop, drop/ cover, hold (or a variation of this) is the correct action to take. At a lower level, 10% of residents mention move to an open area outside, 9% mention get out of the house, and 8% state you should take cover.

Chart 5: Correct Action During an Earthquake



DEMOGRAPHIC DIFFERENCES

More likely to mention:



Age

- Under 30:** Get under or next to something and cover head (55%).
- 30-44:** Stop, drop/ cover, hold (42%).
- 45-64:** Move or stay inside (3%) and long and strong get gone (2%).
- 65+:** Get under or next to something and cover head (46%).



Tenure in area

No significant differences noted.



Gender

- Male:** Go outside or get out of the house (11%) and move to assembly point (3%).
- Female:** Stop, drop/ cover, hold (42%).



Urban/ rural

Rural: Go outside or get out of the house (13%).



Rural living

No statistically significant differences.



Country of birth

No statistically significant differences.

Earthquakes



The following shows the top three mentions made for each area. Any statistically significant results are also shown, these are coloured using green and orange fonts.

Queenstown-Lakes

Get under or next to something and cover head (44%),
stop, drop/ cover, hold (43%),
move to open area outside (11%),
and depends where you are (1%).

Waitaki

Get under or next to something and cover head (48%),
stop, drop/ cover, hold (35%),
go outside (14%),
move to open area outside (7%),
and stay where you are (2%).

Central Otago

Get under or next to something and cover head (47%),
stop, drop/ cover, hold (36%),
go outside (13%), and
get down, get low, get out (1%).

Clutha

Get under or next to something and cover head (48%),
stop, drop/ cover, hold (37%), and
move to open area outside (14%).

Dunedin

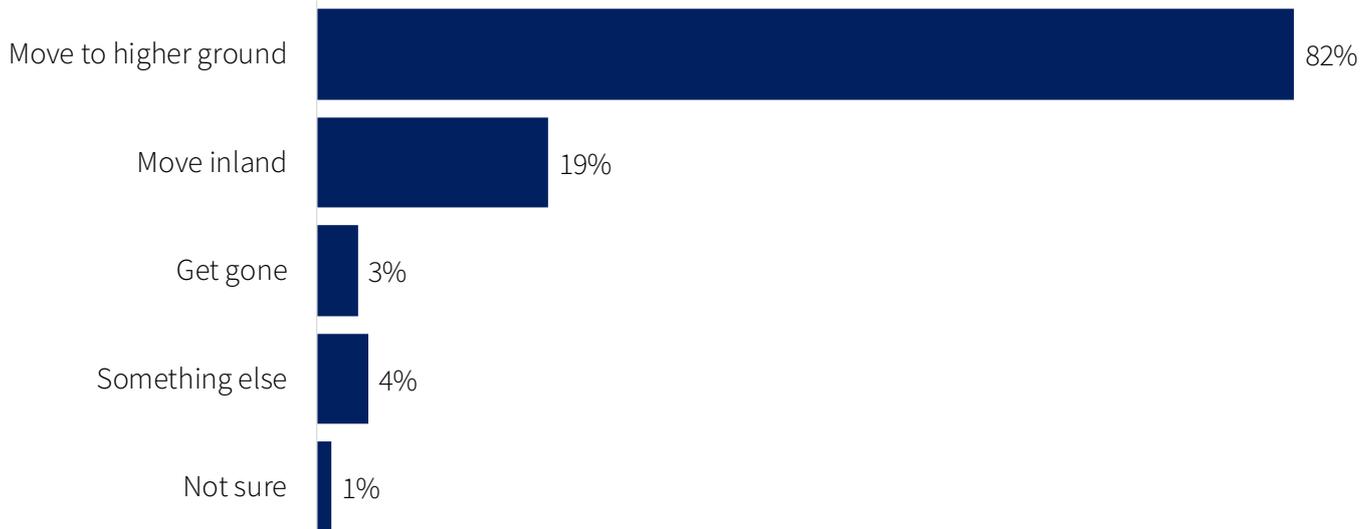
Get under or next to something and cover head (52%),
stop, drop/ cover, hold (36%),
take cover (8%),
go outside (5%), and
not sure (1%).

Earthquakes Near The Coast



Residents were also asked what the correct action to take immediately after an earthquake if they are near the coast; the majority of residents (82%) mention move to higher ground. At a lower level, 19% of residents also mention the correct action is to move inland.

Chart 6: Correct Action if Near the Coast During an Earthquake



DEMOGRAPHIC DIFFERENCES

More likely to mention:



Age

30-44: Get gone (7%) and outside and away from buildings (1%).



Tenure in area

No statistically significant differences.



Gender

No statistically significant differences.



Urban/ rural

Rural: Not sure (2%).



Rural living

On farm: Move inland (30%).



Country of birth

Born outside of NZ: Not sure (2%).

Earthquakes Near The Coast



The following shows the top three mentions made for each area. Any statistically significant results are also shown, these are coloured using green and orange fonts.

Queenstown-Lakes

Move to higher ground (86%),
move inland (16%), and
get gone (2%).

Waitaki

Move to higher ground (80%),
move inland (21%),
get gone (3%), and
evacuate (2%).

Central Otago

Move to higher ground (78%),
move inland (24%), and
not sure (3%).

Dunedin

Move to higher ground (82%),
move inland (18%),
get gone (5%),
listen for tsunami warnings (2%), and
outside and away from buildings (1%).

Clutha

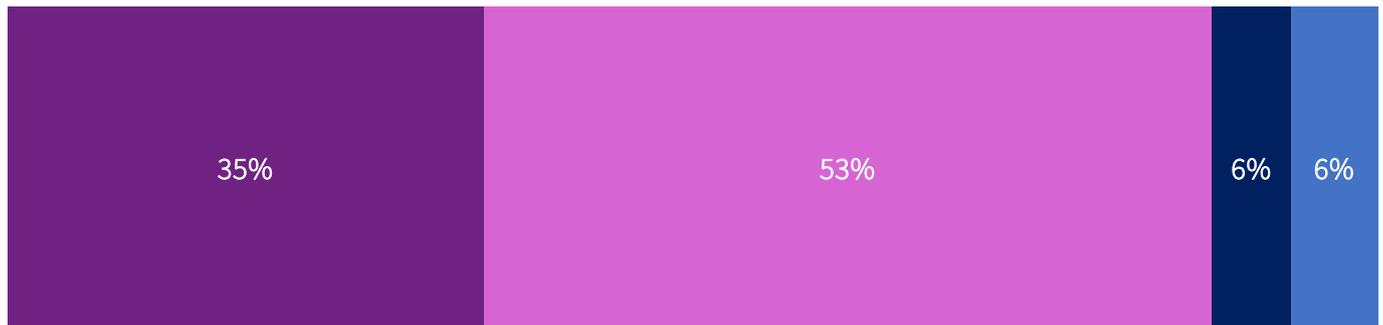
Move to higher ground (85%),
move inland (20%), and
get gone (3%).

Earthquake Risk



Almost all (88%) of residents believe they might (53%) or will definitely (35%) experience a severe earthquake in their lifetime. A further 6% believe they will not and 6% are not sure. Interestingly, younger residents are more likely to think they will definitely experience an earthquake, while older residents aren't as certain.

Chart 7: Risk of Severe Earthquake



■ Yes – definitely ■ Yes – maybe ■ No ■ Not sure

DEMOGRAPHIC DIFFERENCES

More likely to mention:



Age

Under 30: Yes - definitely (41%).
30-44: Yes - definitely (43%).
65+: Yes - maybe (59%).
No (11%). Not sure (10%).



Tenure in area

1-5 years: Yes - definitely (43%).
5+ years: Yes - maybe (58%)
or no (7%).



Gender

No statistically significant differences.



Urban/ rural

No statistically significant differences.



Rural living

No statistically significant differences.



Country of birth

Born outside of NZ:
No (8%).

Earthquake Risk



The following shows all results for each area. Any statistically significant results are also shown, these are coloured using green and orange fonts.

Queenstown-Lakes

Yes - definitely (43%).
Yes - maybe (54%).
No (1%).
Not sure (2%).

Waitaki

Yes - definitely (39%).
Yes - maybe (45%).
No (9%).
Not sure (7%).

Central Otago

Yes - definitely (32%).
Yes - maybe (57%).
No (5%).
Not sure (5%).

Clutha

Yes - definitely (27%).
Yes - maybe (54%).
No (8%).
Not sure (11%).

Dunedin

Yes - definitely (33%).
Yes - maybe (54%).
No (6%).
Not sure (7%).

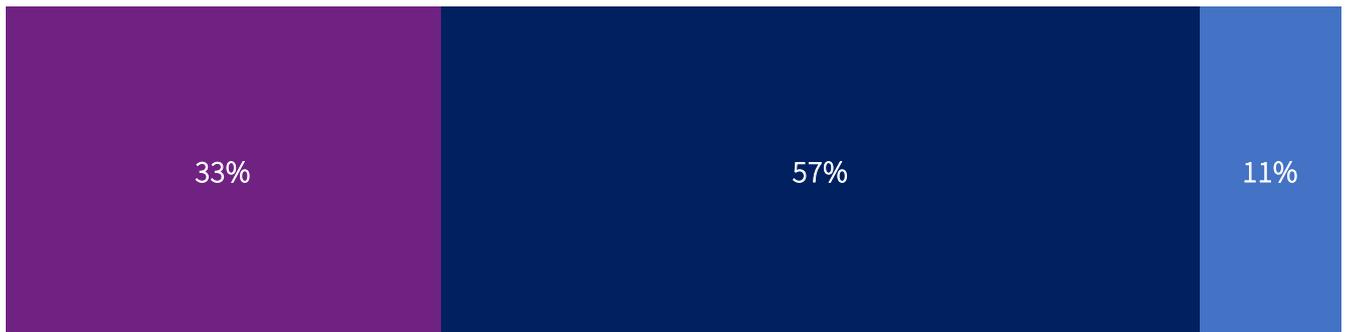
Evacuation Zone Map



Residents in Dunedin, Clutha, and Waitaki were also asked questions around evacuation zones.

A third (33%) of these residents are aware of the tsunami evacuation zone maps. A further 57% are not aware of the maps and 11% are unsure.

Chart 8: Awareness of Tsunami Evacuation Zone Map



■ Aware of tsunami evacuation zone map ■ Not aware of tsunami evacuation zone map ■ Not sure

DEMOGRAPHIC DIFFERENCES

More likely to mention:



Age

Under 30: Not aware (65%).
45-64: Aware (38%).
65+: Not sure (16%).



Tenure in area

5+ years: Not sure (12%).



Gender

No statistically significant differences noted.



Urban/ rural

No statistically significant differences noted.



Rural living

On farm: Not aware (63%).



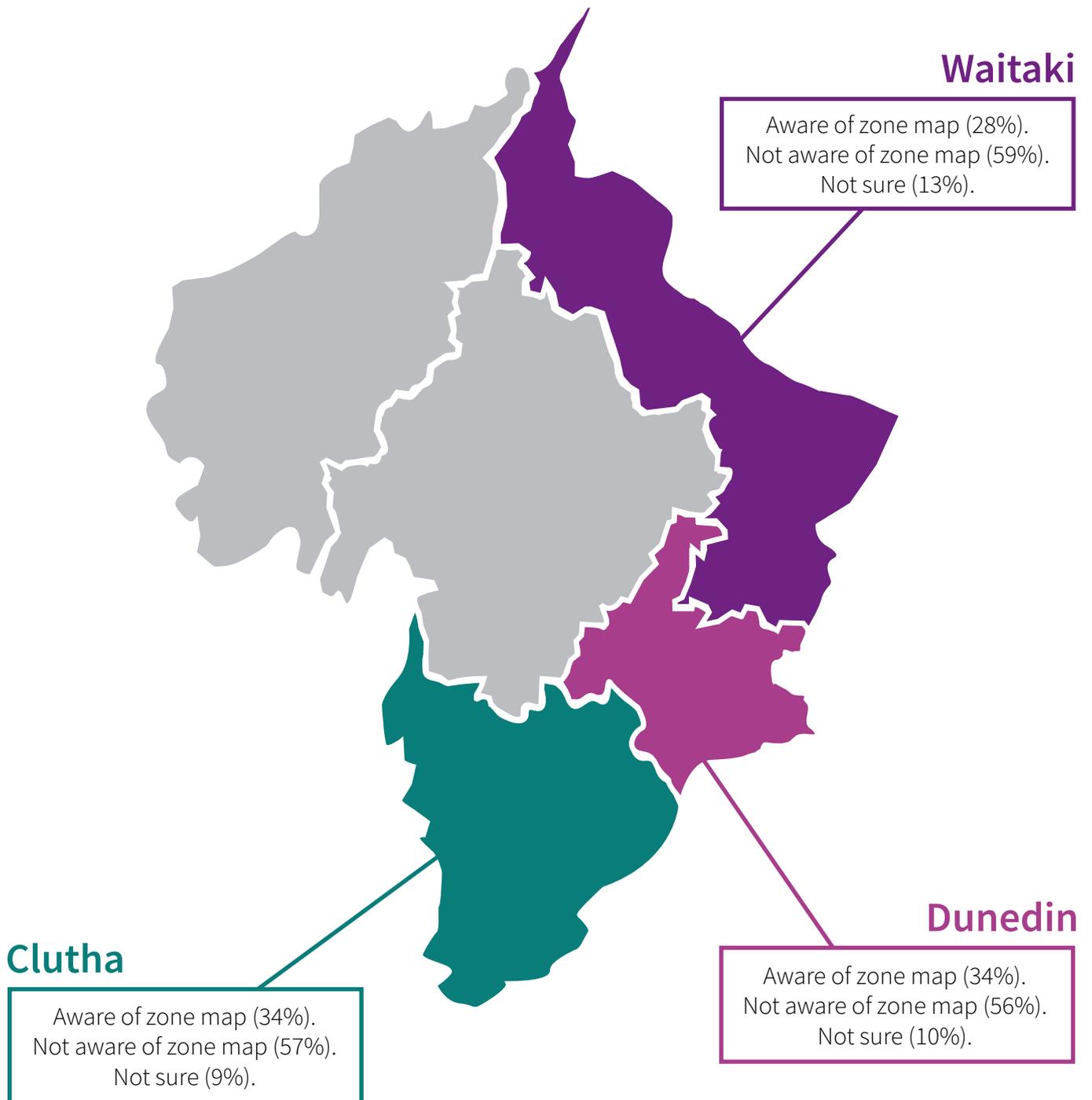
Country of birth

No statistically significant differences noted.

Evacuation Zone Map



The following shows all results for each area. There are no statistically significant differences noted within these results. This question was only asked of Waitaki, Dunedin, and Clutha residents, therefore there are no results for Queenstown-Lakes and Central Otago.

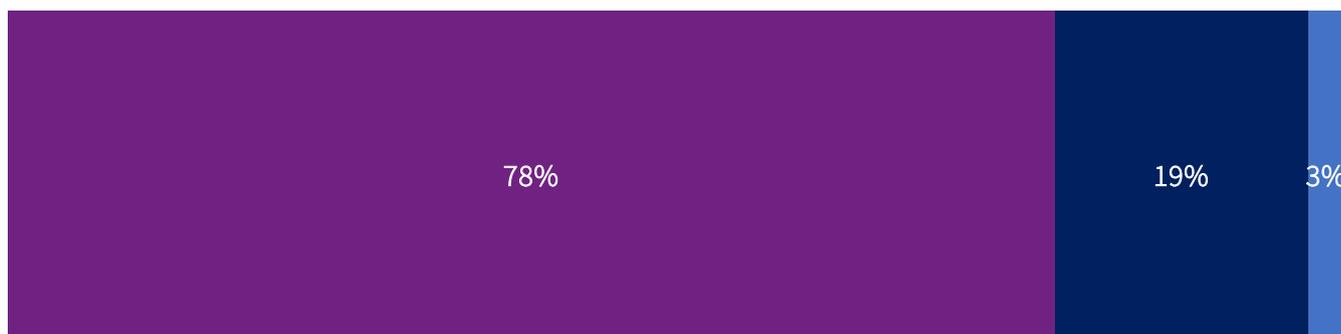


Checked Evacuation Map



Of residents who are aware of the evacuation zone maps, 78% have checked whether their home or places they visit, or their family often go, are in an evacuation zone.

Chart 9: Checked Evacuation Zone Map



■ Checked evacuation map ■ Not checked evacuation map ■ Not sure

DEMOGRAPHIC DIFFERENCES

More likely to mention:



Age

Under 30: Not checked map (30%).
30-44: Checked map (87%).
65+: Not sure (8%).



Tenure in area

No significant differences noted.



Gender

No significant differences noted.



Urban/ rural

Urban: Not checked map (24%).
Rural: Checked map (87%).



Rural living

No significant differences noted.



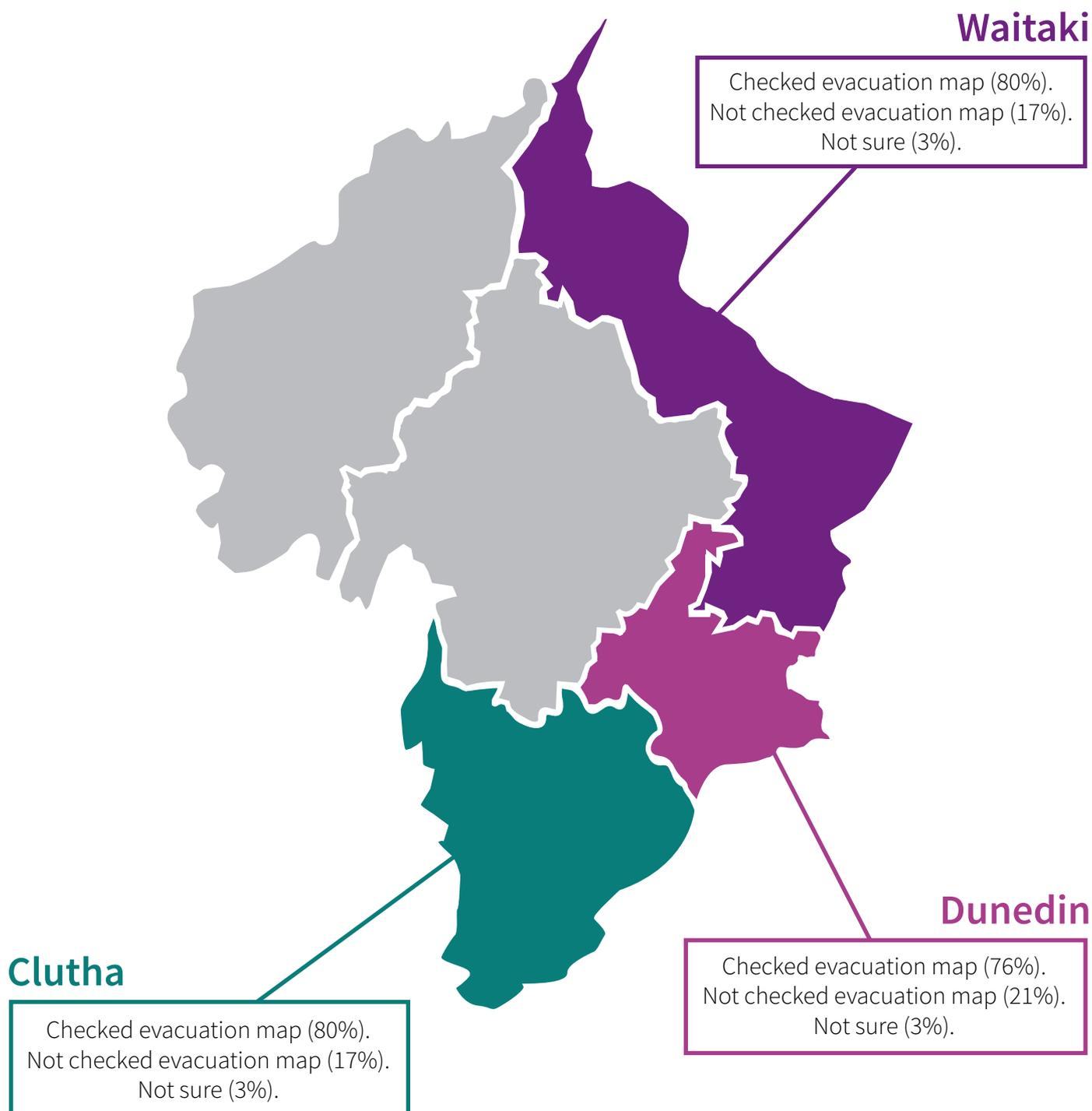
Country of birth

No significant differences noted.

Checked Evacuation Map



The following shows all results for each area. There are no statistically significant differences noted within these results. This question was only asked of Waitaki, Dunedin, and Clutha residents, therefore there are no results for Queenstown-Lakes and Central Otago.

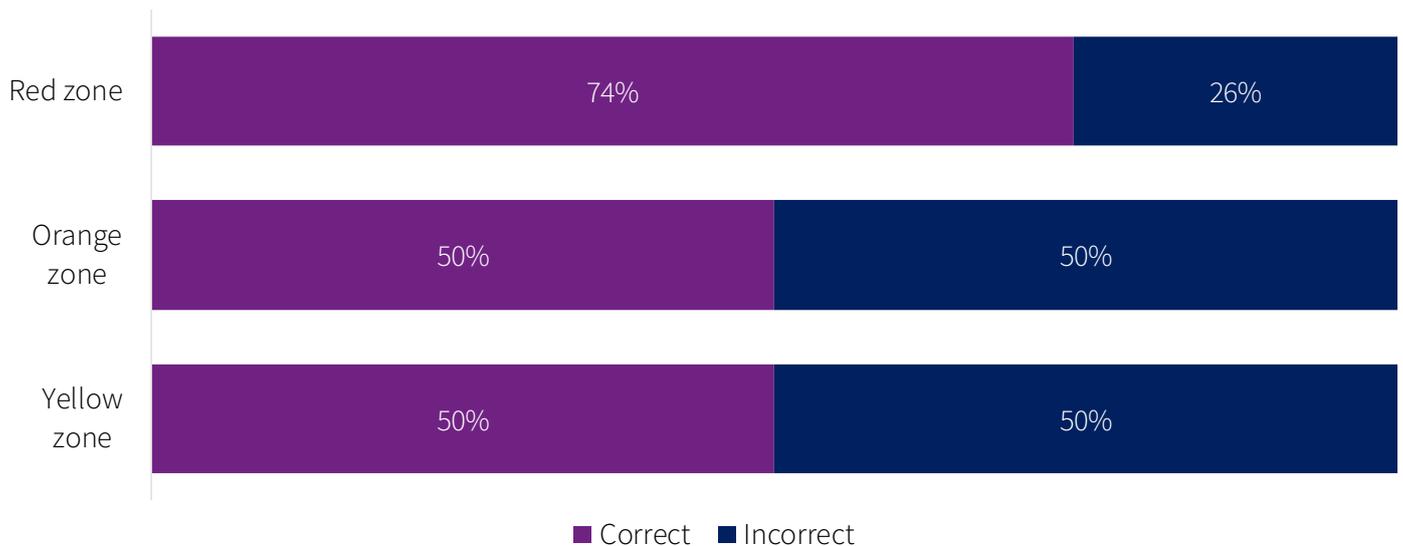


Evacuation Zones



Residents who had checked the evacuation zones map were also asked to identify the description for each zone. Overall, 74% of these residents correctly identified the red zone as including the whole Otago shore and beaches. Fifty per cent correctly identified the orange zone as including land close to sea level and 50% of these residents also correctly identified the yellow zone as including the area that would be affected by a tsunami of more than 3 meters above normal high tide.

Chart 10: Evacuation Zones



DEMOGRAPHIC DIFFERENCES

More likely to:



Age

No statistically significant differences.



Tenure in area

1-5 years: Incorrectly identify orange zone (59%).



Gender

No statistically significant differences.



Urban/ rural

No statistically significant differences.



Rural living

No statistically significant differences.



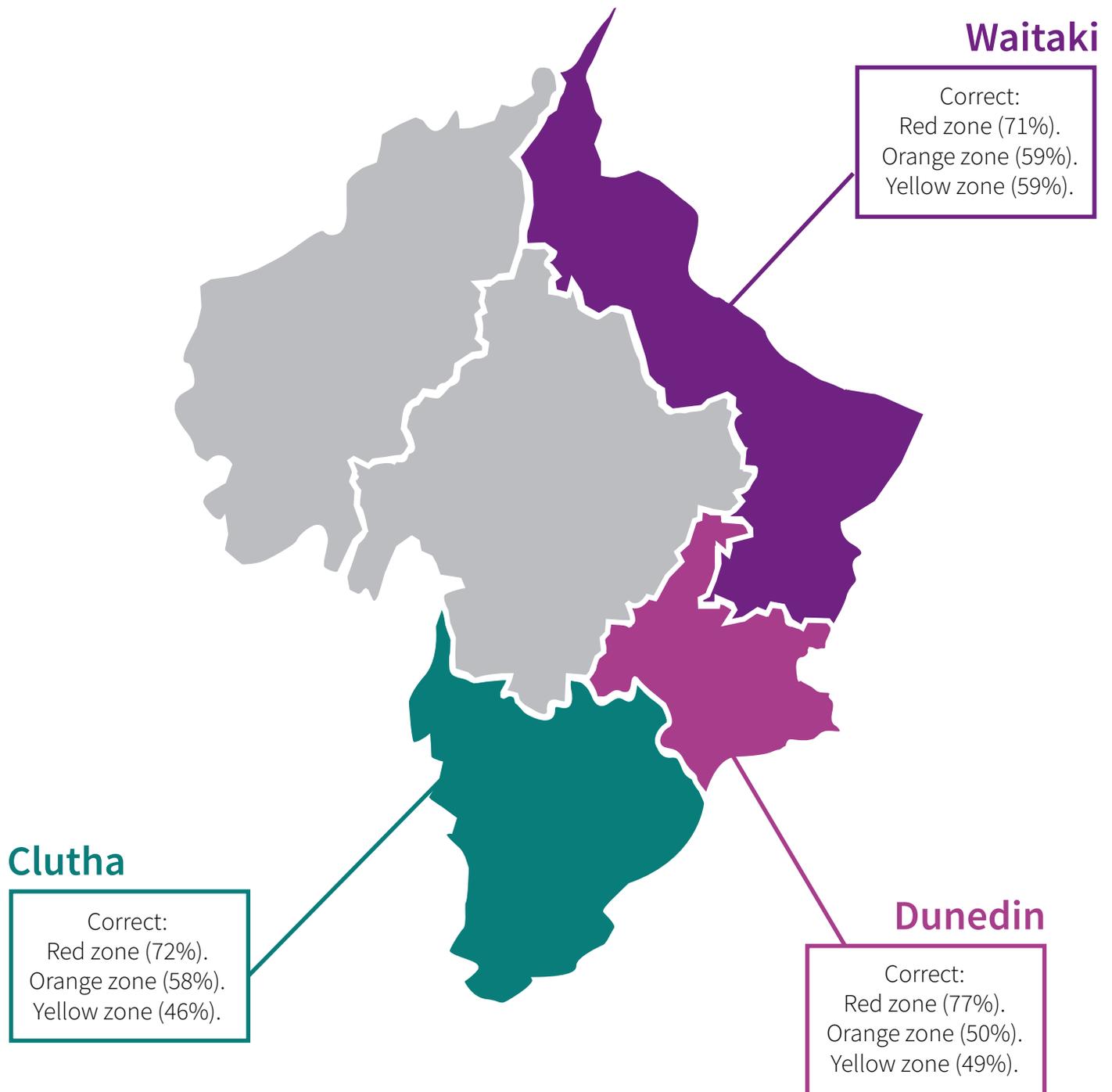
Country of birth

No statistically significant differences.

Evacuation Zones



The following shows all results for each area. There are no statistically significant differences noted within these results. This question was only asked of Waitaki, Dunedin, and Clutha residents, therefore there are no results for Queenstown-Lakes and Central Otago.

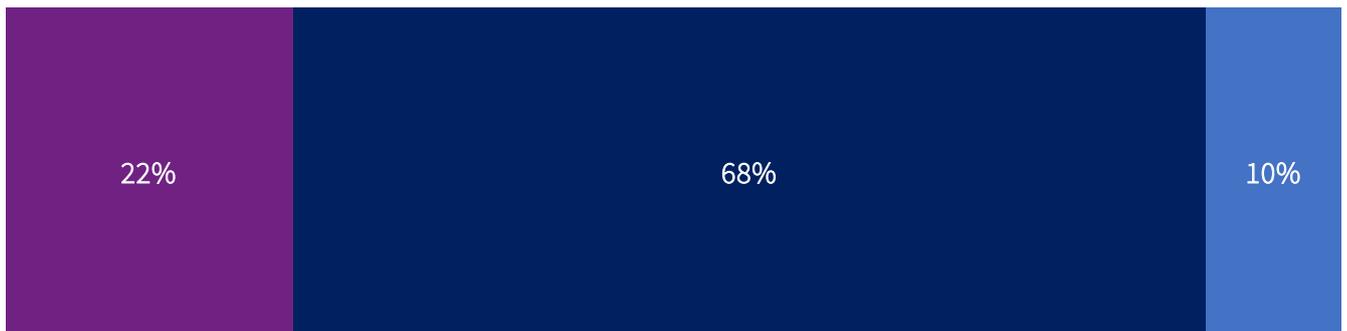


Community Response Plan

Residents who live within specific areas of the Central Otago and Queenstown-Lakes districts were asked about their awareness of the community response plan.

Overall, 22% of these residents have seen the community response plan. A further 68% have not seen the community response plan and 10% are not sure.

Chart 11: Community Response Plan



■ Have seen community response plan ■ Have not seen community response plan ■ Not sure

DEMOGRAPHIC DIFFERENCES

More likely to mention:



Age

No statistically significant differences.



Tenure in area

>1 year: Have not seen community response plan (94%).



Gender

No statistically significant differences.



Urban/ rural

No statistically significant differences.



Rural living

On a lifestyle block: Have not seen community response plan (82%).



Country of birth

No statistically significant differences.

Community Response Plan

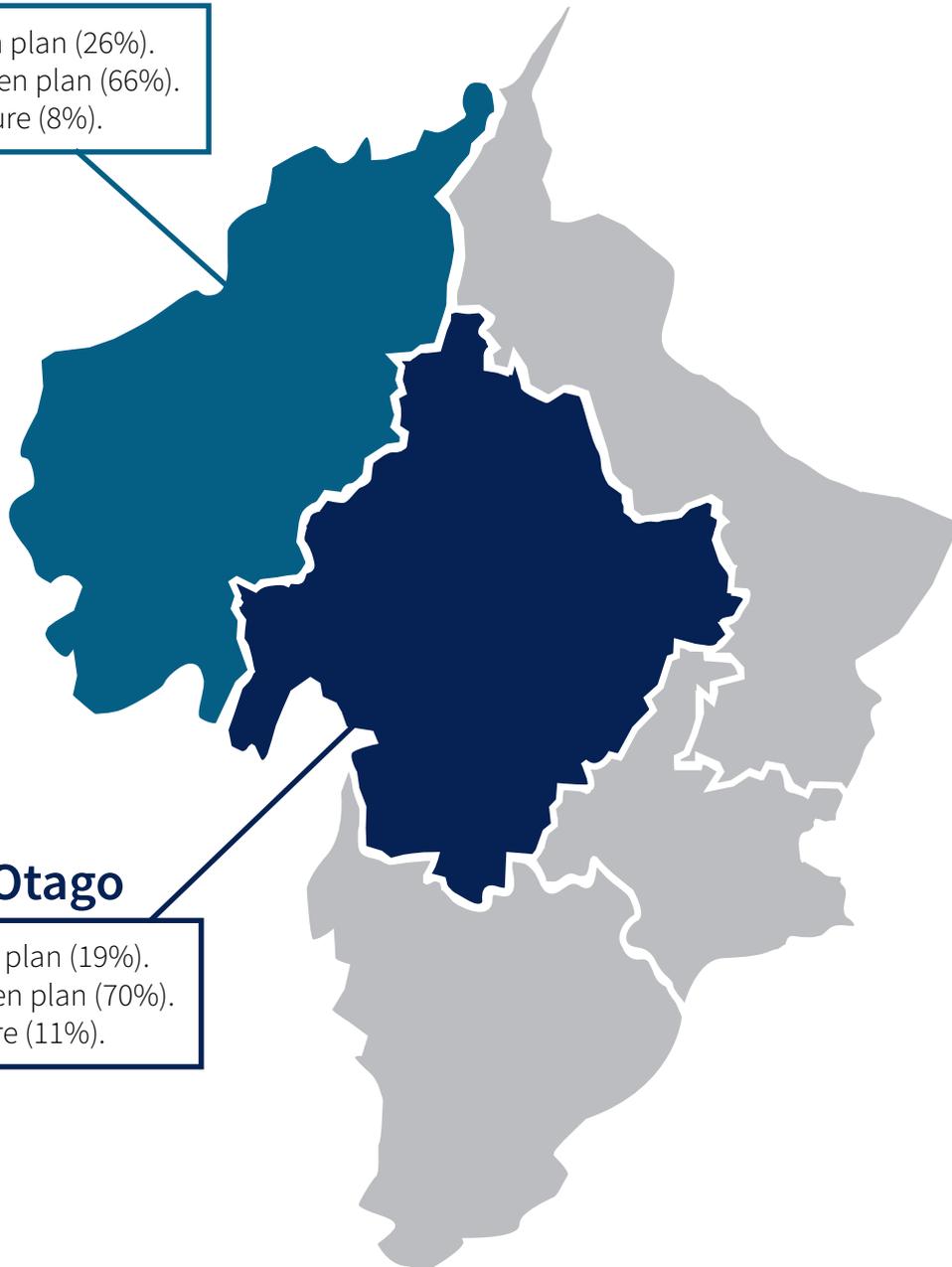
The following shows all results for each area. There are no statistically significant differences noted within these results. This question was only asked of Queenstown-Lakes and Central Otago residents, therefore there are no results for Waitaki, Dunedin, and Clutha residents.

Queenstown-Lakes

Have seen plan (26%).
Have not seen plan (66%).
Not sure (8%).

Central Otago

Have seen plan (19%).
Have not seen plan (70%).
Not sure (11%).



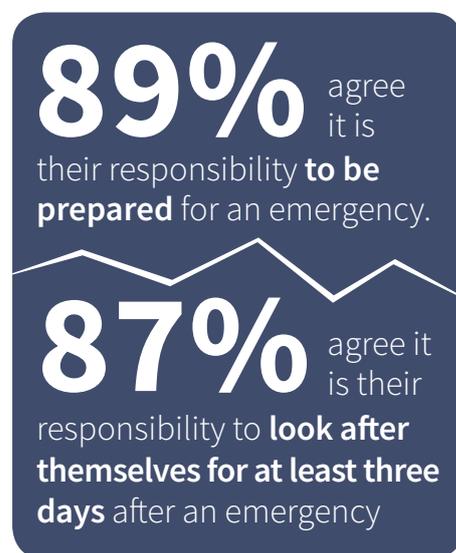
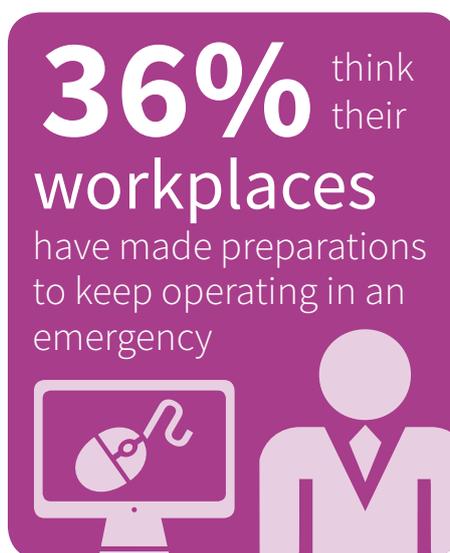
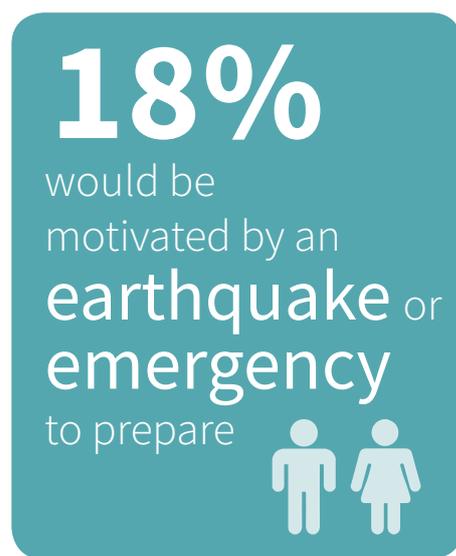


Preparedness for an Emergency

Current and Planned

Preparations for an Emergency

Summary of Findings



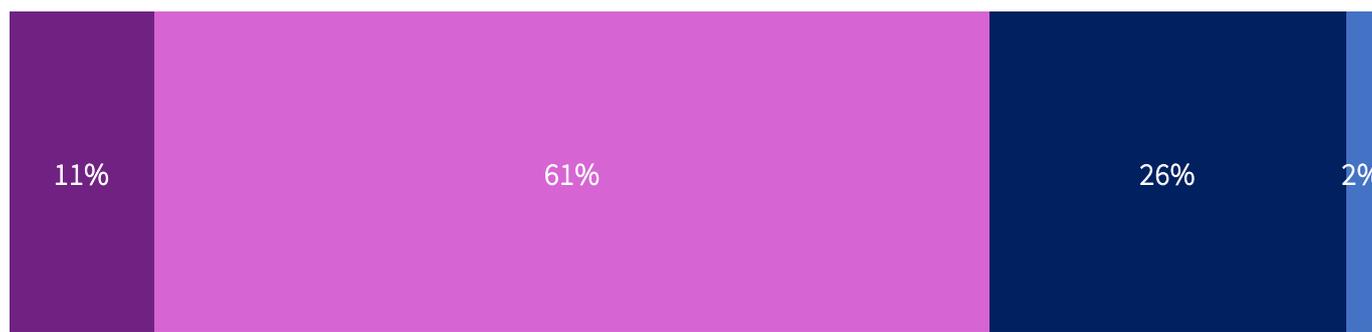
Almost everyone would check on their family members, neighbours, and others in their community during or after an emergency.

Sufficiently Ready



Seventy-two per cent of residents indicate they are somewhat (61%) or very (11%) prepared for an emergency. A further 26% of residents mention they are not prepared and 2% are not sure. Interestingly, older residents are more likely to mention they are prepared, while younger residents are more likely to indicate they are not.

Chart 12: Sufficiently Prepared for an Emergency



■ Yes – very prepared
 ■ Yes – somewhat prepared
 ■ No – not prepared
 ■ Not sure

DEMOGRAPHIC DIFFERENCES

More likely to mention:



Age

Under 30: Not prepared (42%).
30-44: Not prepared (32%).
45-64: Very prepared (14%) or somewhat prepared (66%).
65+: Very prepared (17%) or somewhat prepared (68%).



Tenure in area

>1 year: Not prepared (47%).
5+ years: Very prepared (13%) or somewhat prepared (65%).



Gender

Male: Somewhat prepared (66%).
Female: Not prepared (31%).



Urban/ rural

Urban: Not prepared (31%).
Rural: Very prepared (15%) or somewhat prepared (66%).



Rural living

No statistically significant differences.



Country of birth

No statistically significant differences.

Sufficiently Ready



The following shows all results for each area. Any statistically significant results are shown using green or orange font.

Queenstown-Lakes

Yes - very prepared (11%).
Yes - somewhat prepared (68%).
No - not prepared (18%).
Not sure (2%).

Waitaki

Yes - very prepared (14%).
Yes - somewhat prepared (57%).
No - not prepared (25%).
Not sure (3%).

Central Otago

Yes - very prepared (13%).
Yes - somewhat prepared (65%).
No - not prepared (19%).
Not sure (3%).

Dunedin

Yes - very prepared (7%).
Yes - somewhat prepared (55%).
No - not prepared (35%).
Not sure (2%).

Clutha

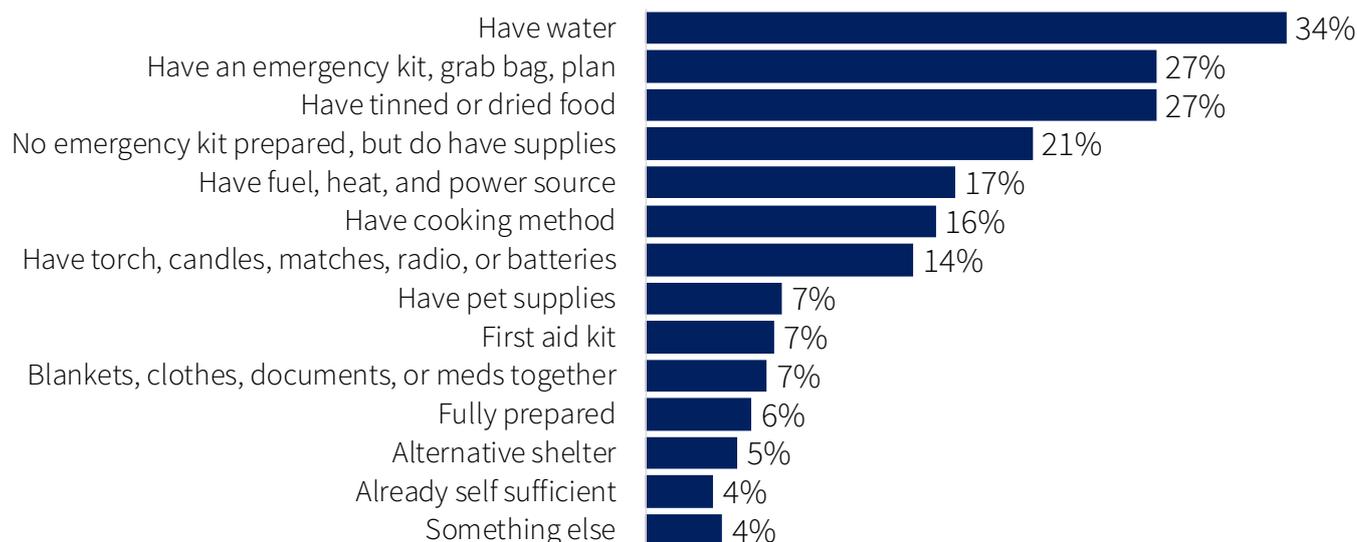
Yes - very prepared (11%).
Yes - somewhat prepared (63%).
No - not prepared (24%).
Not sure (2%).

Prepared: Reasons Why



Residents who indicate they are prepared for an emergency mention their reasons for this revolve around having water (34%), an emergency kit, grab bag, or plan (27%), and tinned or dried food (27%). At a lower level, these residents also mention they don't have an emergency kit, but do have supplies (21%), they have fuel, heat, and power sources (17%), and a cooking method (16%).

Chart 13: Reasons for Being Sufficiently Prepared



DEMOGRAPHIC DIFFERENCES

More likely to mention:



Age

Under 30: No emergency kit, but have supplies (29%).

30-44: Have emergency kit, grab bag, plan (37%).

45-64: Have cooking method (18%) and have fuel, heat, and power source (21%).

65+: Have torch, candles, etc. (21%) and blankets, clothes, etc. (11%).



Tenure in area

>1 year: Fully prepared (12%).



Gender

Male: Have tinned or dried food (30%).

Female: No emergency kit, but have supplies (24%) and have torch, candles, etc. (17%).



Urban/rural

Rural: Have water (41%), tinned or dried food (31%), cooking method (21%), fuel, heat and power source (25%), and already sufficient (8%).



Rural living

In a small rural community: Have emergency kit/ grab bag/ plan (33%).



Country of birth

Born outside of NZ: Blankets, clothes, documents, or meds together (12%).

Prepared: Reasons Why



The following shows the top three mentions made for each area. Any statistically significant results are also shown, these are coloured using green and orange fonts.

Queenstown-Lakes

Have water (36%),
have emergency kit (28%),
have tinned or dried
food (25%), and
have emergency kit,
but needs updating (6%).

Waitaki

Have water (33%),
have emergency kit (31%),
have tinned or dried food (28%),
and fully prepared (10%).

Central Otago

Have water (34%),
have tinned or dried food (28%),
have emergency kit (25%), and
already self sufficient (7%).

Clutha

Have water (40%),
have tinned or dried food (32%),
have emergency kit (24%), and
first aid kit (10%).

Dunedin

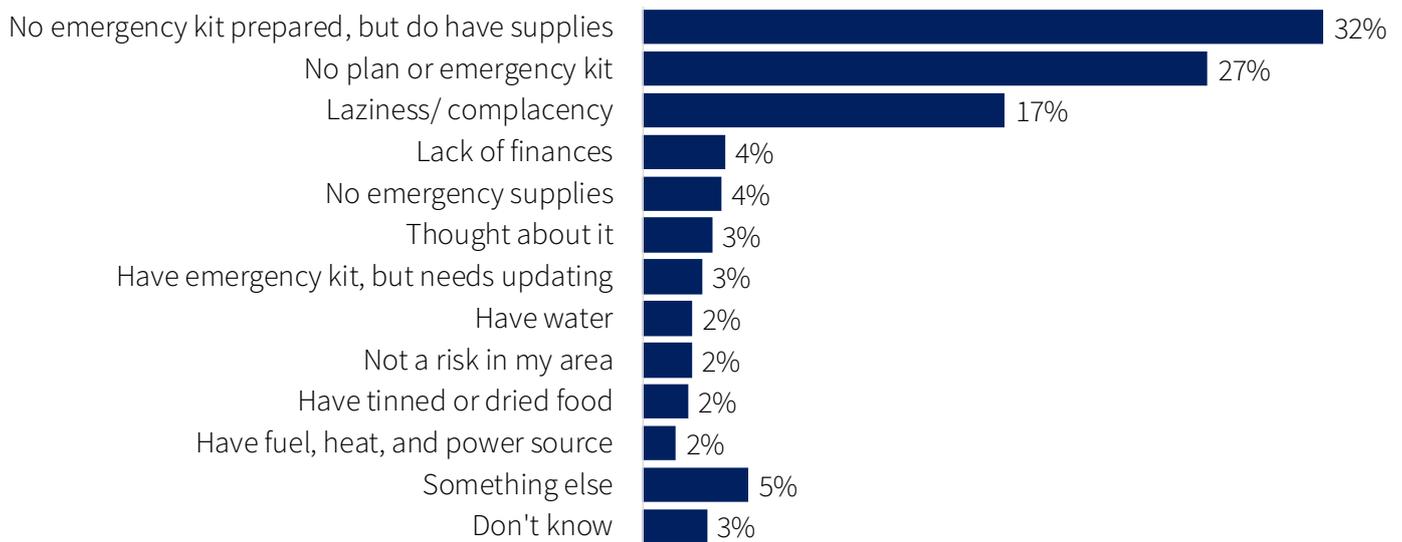
Have water (32%),
have emergency kit (29%),
have tinned or dried food (24%),
have fuel, heat, and power source (12%),
need to add to or update
existing supplies (3%), and
already self sufficient (1%).

Unprepared: Reasons Why



Of residents who mention they are not prepared, 32% mention they don't have a kit prepared, but they do have emergency supplies. A further 27% mention they have no plan or emergency kit and 17% indicate complacency has stopped them from being more prepared.

Chart 14: Reasons for Not Being Sufficiently Prepared



DEMOGRAPHIC DIFFERENCES

More likely to mention:



Age

Under 30: No emergency supplies (6%).

30-44: No emergency kit prepared, but do have supplies (43%).

45-64: Have emergency kit, but needs updating (6%).

65+: Lazy/ complacent (30%).



Tenure in area

5+ years: Have emergency kit, but needs updating (5%).



Gender

Female: Have emergency kit, but needs updating (36%).



Country of birth

Born in NZ: Lazy/ complacent (20%).

Born outside of NZ: No emergency kit prepared, but do have supplies (43%), no plan or emergency kit (36%), need information about being prepared (5%).



Urban/ rural

No significant differences noted.



Rural living

No significant differences noted.

Unprepared: Reasons Why



The following shows the top three mentions made for each area. Any statistically significant results are also shown, these are coloured using green and orange fonts.

Queenstown-Lakes

No emergency kit, but do have supplies (38%), no plan or emergency kit (32%), laziness/ complacency (8%), and no emergency supplies (8%).

Waitaki

No emergency kit, but do have supplies (33%), no plan or emergency kit (29%), and laziness/ complacency (20%).

Central Otago

No emergency kit, but do have supplies (40%), no plan or emergency kit (20%), and laziness/ complacency (17%).

Clutha

No emergency kit, but do have supplies (27%), laziness/ complacency (16%), no plan or emergency kit (14%), don't know (10%), and live day to day (2%).

Dunedin

No plan or emergency kit (31%), no emergency kit, but do have supplies (29%), and laziness/ complacency (19%).

Likelihood To Prepare



Almost half (45%) of residents indicate they are likely (35%) or very likely (10%) to take further steps to prepare for an emergency in the next six months. Thirty-one per cent of residents indicate they are neither likely nor unlikely, and 24% mention they are not likely (19%) or not at all likely (5%) to take further steps to prepare for an emergency in the next six months.

Chart 15: Likelihood to Further Prepare for an Emergency



■ Very likely
 ■ Likely
 ■ Neither likely nor unlikely
 ■ Not likely
 ■ Not at all likely

DEMOGRAPHIC DIFFERENCES

More likely to mention:



Age

Under 30: Neither likely nor unlikely (39%).
30-44: Very likely (16%) or likely (44%).
65+: Not likely (26%).



Tenure in area

5+ years: Not likely (21%).



Gender

Female: Likely (38%).



Urban/ rural

No significant differences noted.



Rural living

In small rural community: Very likely (15%) or likely (39%).
On farm: Not likely (30%) or not at all likely (10%).



Country of birth

No significant differences noted.

Likelihood To Prepare



The following shows all results for each area. Any statistically significant results are shown using green or orange font.

Queenstown-Lakes

Very likely (12%).
Likely (37%).
Neither nor (29%).
Not likely (19%).
Not at all likely (3%).

Waitaki

Very likely (12%).
Likely (33%).
Neither nor (29%).
Not likely (18%).
Not at all likely (8%).

Central Otago

Very likely (8%).
Likely (38%).
Neither nor (32%).
Not likely (18%).
Not at all likely (4%).

Clutha

Very likely (9%).
Likely (32%).
Neither nor (32%).
Not likely (22%).
Not at all likely (5%).

Dunedin

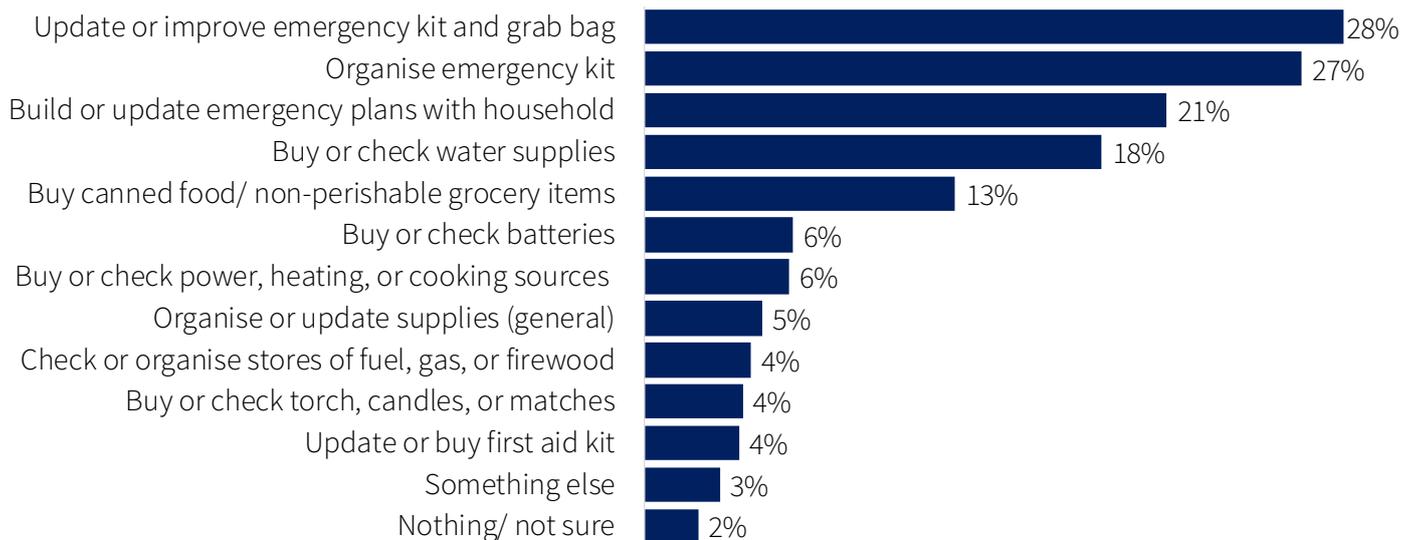
Very likely (10%).
Likely (36%).
Neither nor (31%).
Not likely (18%).
Not at all likely (5%).

Intended Steps



Residents who mention they are likely to take further steps to prepare in the next six months mention they are going to update or improve their emergency kit or grab bag (28%) and organise their emergency kit (27%). A further 21% of these residents mention they are going to build or update an emergency plan with their household, 18% mention they will buy or check water supplies, and 13% will buy canned food and non-perishable grocery items.

Chart 16: Steps Intending to Take to Prepare for an Emergency



DEMOGRAPHIC DIFFERENCES

More likely to mention:



Age

- Under 30:** Organise emergency kit (40%).
- 30-44:** Build or update emergency plan with household (28%) and buy or update first aid kit (6%).
- 45-64:** Buy or check batteries (10%), and buy or check power, heating, or cooking source (9%).
- 65+:** Buy or check torch, candles, or matches (8%) and organise or update supplies (9%).



Urban/ rural

- Rural:** Buy or check torch, candles, or matches (6%).



Tenure in area

- >1 year:** Keep informed (8%).
- 1-5 years:** Not sure (4%).



Rural living

- On a lifestyle block:** Organise alternative storage facility away from house (4%).
- On farm:** Buy or check power, heating, or cooking source (17%).



Gender

- Male:** Build or update emergency plan with household (26%).
- Female:** Organise emergency kit (31%).



Country of birth

- Born outside of NZ:** Build or update emergency plan with household (29%).

Intended Steps



The following shows the top three mentions made for each area. Any statistically significant results are also shown, these are coloured using green and orange fonts.

Queenstown-Lakes

Update or improve emergency kit (33%),
organise emergency kit (25%),
buy or check water supply (23%), and
buy canned or non-perishable
grocery items (19%).

Waitaki

Update or improve emergency kit (33%),
organise emergency kit (25%), and
buy or check water supply (21%).

Central Otago

Update or improve
emergency kit (31%),
organise emergency kit (28%),
and build or update
emergency plan (22%).

Dunedin

Organise emergency kit (27%),
update or improve emergency kit (24%),
build or update emergency plan (23%),
and nothing/ not sure (5%).

Clutha

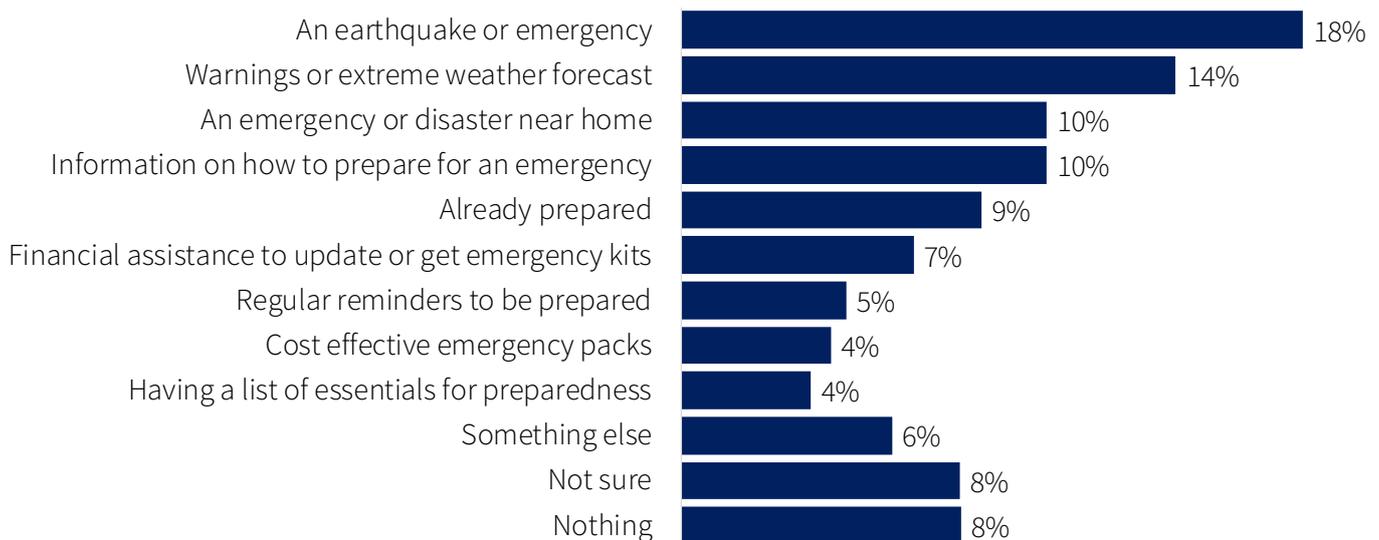
Organise emergency kit (28%),
update or improve emergency kit (24%),
and build or update emergency plan (18%).

Motivations To Prepare



When asked what would motivate those who are not intending to take steps to be prepared in the next six months to prepare for an emergency, 18% mention an earthquake or emergency would encourage them to prepare. Following this, warnings or extreme weather (14%), an emergency or disaster near home (10%), and information on how to prepare for an emergency (10%) are also motivators to prepare.

Chart 17: Motivations to Prepare for an Emergency



DEMOGRAPHIC DIFFERENCES

More likely to mention they would be motivated by:



Age

Under 30: Emergency or disaster near home (15%) and financial assistance for emergency kit (15%).

30-44: Cost effective emergency packs (9%).

45-64: Nothing (11%).

65+: Earthquake or emergency (23%) and nothing (14%).



Tenure in area

1-5 years: Information on how to prepare for an emergency (14%).

5+ years: Regular reminders to prepare (6%).



Gender

No statistically significant differences.



Urban/ rural

Rural: Information on how to prepare for an emergency (15%).



Rural living

On a lifestyle block: Earthquake or emergency (22%).



Country of birth

Born in NZ: Personal experiences (3%).

Motivations To Prepare



The following shows the top three mentions made for each area. Any statistically significant results are also shown, these are coloured using green and orange fonts.

Queenstown-Lakes

An earthquake or emergency (22%), information on how to prepare (15%), warnings or extreme weather forecast (14%), and **nothing** (4%).

Waitaki

An earthquake or emergency (19%), warnings or extreme weather forecast (14%), an emergency or disaster near home (12%), and **having a list of essentials for preparedness** (1%).

Central Otago

An earthquake or emergency (21%), **already prepared** (13%), and warnings or extreme weather forecast (14%).

Clutha

An earthquake or emergency (20%), warnings or extreme weather forecast (13%), and **nothing** (10%).

Dunedin

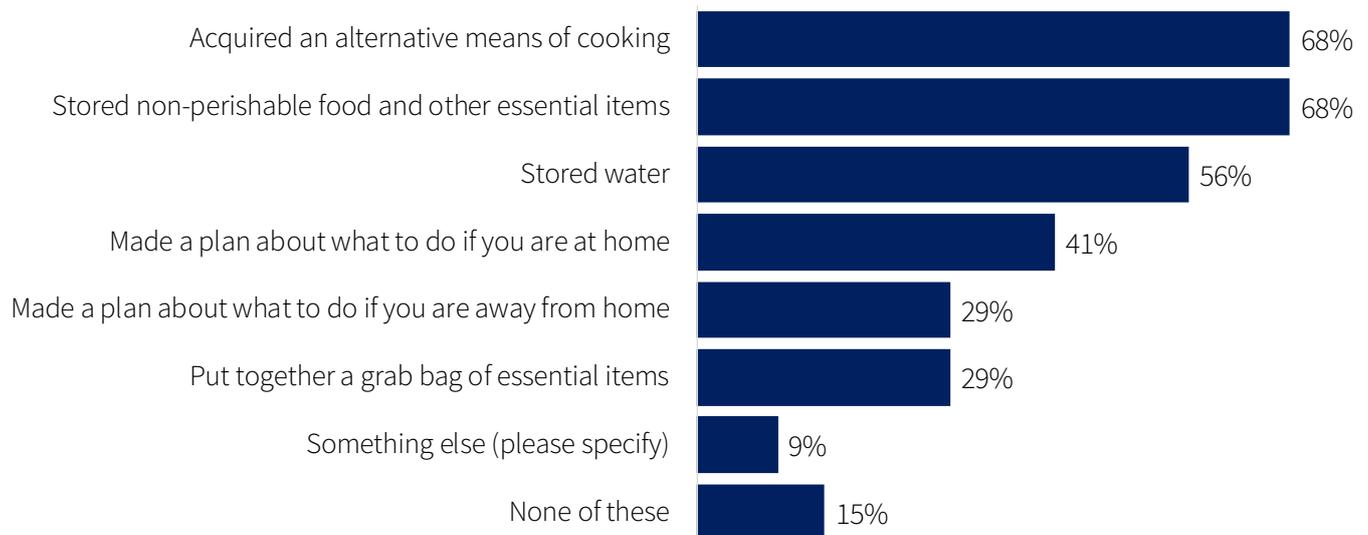
Warnings or extreme weather forecast (15%), **financial assistance to update or get emergency kits** (12%), an emergency or disaster near home (12%), **an earthquake or emergency** (12%), and **already prepared** (4%).

Preparations



Sixty-eight per cent (each) mention they have acquired an alternative means of cooking and have stored non-perishable food essential items. A further 56% of residents have stored water and 41% have made a plan about what to do if they are at home. At a lower level, 29% (each) of residents have a plan about what to do if they are away from home and have put together a grab bag. Fifteen per cent of residents mention they have not taken any of these steps to prepare. Notably, younger residents are less prepared, while those aged 45-64 years appear the most prepared for an emergency. Urban residents also appear less prepared than rural residents. Demographic differences are shown overleaf.

Chart 18: Current Preparations



Preparations



DEMOGRAPHIC DIFFERENCES

More likely to mention:



Age

Under 30: None of these (30%).

45-64: Alternative means of cooking (81%), stored non-perishable food and other essential items (78%), stored water (63%), made plan for what to do at home (47%), and if away from home (35%).

65+: Alternative means of cooking (75%), stored non-perishable food and other essential items (81%), stored water (69%), and put together a grab bag (14%).



Urban/ rural

Urban: None of these (17%).

Rural: Alternative means of cooking (80%), stored non-perishable food and other essential items (76%), and stored water (66%).



Tenure in area

>1 year: None of these (32%).

5+ years: Alternative means of cooking (74%), stored non-perishable food and other essential items (74%), stored water (62%), made plan for what to do at home (44%), and if away from home (31%).



Rural living

On a lifestyle block:

Alternative means of cooking (87%) and stored water (73%).



Gender

Male: Alternative means of cooking (72%) and stored water (61%).



Country of birth

No statistically significant differences noted.

Preparations



The following shows the top three mentions made for each area. Any statistically significant results are also shown, these are coloured using green and orange fonts.

Queenstown-Lakes

Acquired an alternative means of cooking (75%), stored non-perishable food (71%), and stored water (58%).

Waitaki

Stored non-perishable food (71%), acquired alternative means of cooking (64%), stored water (59%), and put together a grab bag (34%).

Central Otago

Acquired an alternative means of cooking (81%), stored non-perishable food (77%), stored water (60%), made a plan for what to do if away from home (24%), and none of these (10%).

Clutha

Acquired an alternative means of cooking (73%), stored non-perishable food (68%), and stored water (56%).

Dunedin

Stored non-perishable food (61%), acquired alternative means of cooking (55%), stored water (52%), and none of these (19%).

Workplace Preparations



Overall, 36% of residents indicate that their workplace has made preparations to keep operating during an emergency, with a further 24% indicating their work place has not made preparations. Interestingly, residents who live on a farm are more likely to mention their workplace has made preparations to keep operating during an emergency.

Chart 19: Workplace Preparations



■ Yes - workplace made preparations
 ■ Not sure

■ No - workplace hasn't made preparations
 ■ Not currently working

DEMOGRAPHIC DIFFERENCES

More likely to mention workplace has made preparations:



Age

45-64: Workplace made preparations (40%).



Tenure in area

No significant differences noted.



Gender

Male: Workplace made preparations (38%).



Urban/ rural

No significant differences noted.



Rural living

On farm: Workplace made preparations (52%).



Country of birth

No significant differences noted.

Workplace Preparations



The following shows results for residents who believe their workplace has made preparations, for each area. No significant differences are shown within these results.

Queenstown-Lakes

Have made preparations (36%).

Waitaki

Have made preparations (36%).

Central Otago

Have made preparations (34%).

Clutha

Have made preparations (37%).

Dunedin

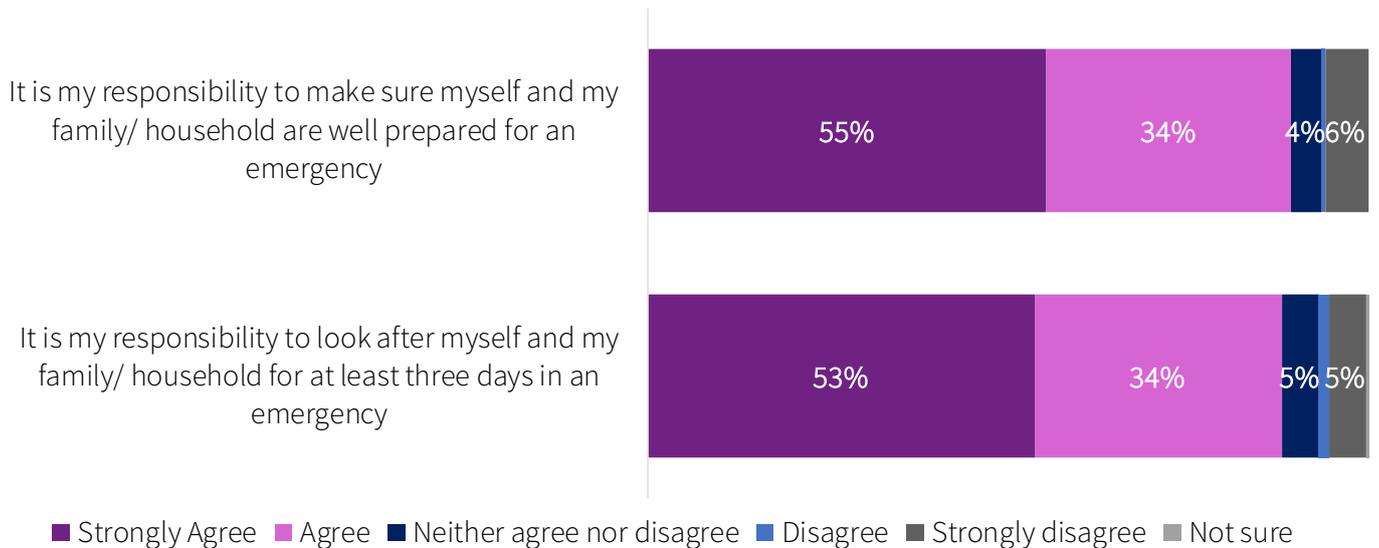
Have made preparations (36%).

Responsibility



Eighty-nine per cent of residents agree (34%) or strongly agree (55%) that it is their responsibility to make sure they, and their family, are well prepared for an emergency. Additionally, 87% agree (34%) or strongly agree (53%) that it is their responsibility to look after themselves, and their family, for at least three days in an emergency.

Chart 20: Responsibility During and After an Emergency



Responsibility



DEMOGRAPHIC DIFFERENCES

More likely to mention:



Age

Under 30: Disagree it is my responsibility to look after family for at least three days (64%).
30-44: Strongly agree it is my responsibility to ensure family are prepared (63%) and to look after family for at least three days (60%).
65+: Agree it is my responsibility to ensure family are prepared (25%) and to look after family for at least three days (24%).



Urban/ rural

No statistically significant differences.



Tenure in area

1-5 years: Strongly disagree it is my responsibility to ensure family are prepared (45%) and to look after family for at least three days (50%).



Rural living

In small rural community: Agree it is my responsibility to ensure family are prepared (49%).



Gender

No statistically significant differences.



Country of birth

No statistically significant differences.

Responsibility



The following show statistically significant results which are higher than the total result. All results shown for Queenstown-Lakes, Dunedin, and Central Otago are significantly higher, therefore the text has not been shaded green. There are no significant differences noted for Waitaki and Clutha.

Queenstown-Lakes*

Strongly agree responsibility to prepare for emergency (64%) and to look after family for at least three days (63%).

Waitaki

No significant differences noted.

Central Otago*

Disagree that it is their responsibility to be prepared for an emergency (2%).

Clutha

No significant differences noted.

Dunedin*

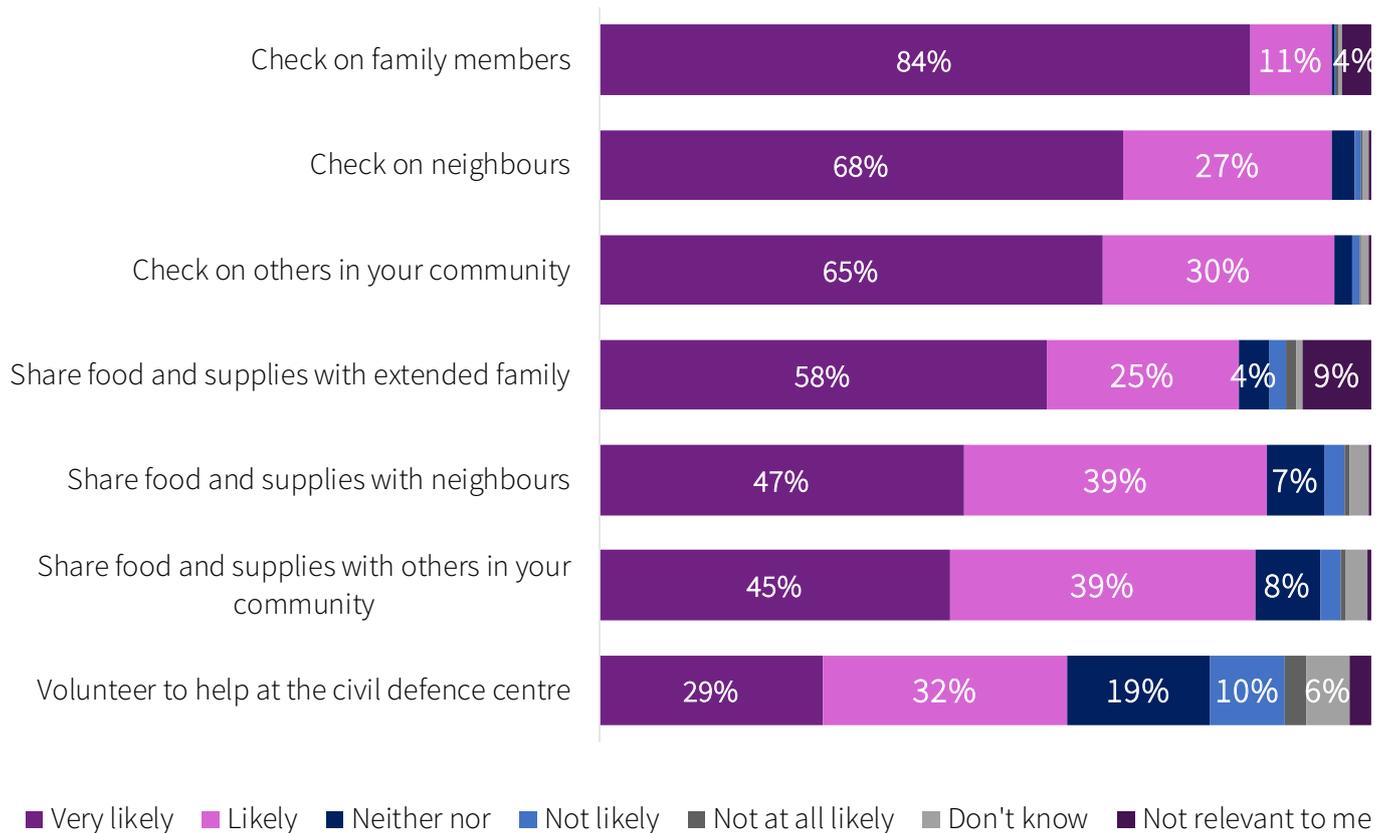
Neither agree nor disagree that it is their responsibility to be prepared for an emergency (6%).

Looking After Others



Almost all (95%) residents mention they are likely to check on family members, on neighbours, and on others in their community during or after an emergency. Eighty-six per cent of residents are likely to share food and supplies with neighbours, with others (84%), and with extended family (83%). Sixty-one per cent of residents indicate they are likely to volunteer to help at the civil defence centre. Demographic differences are shown overleaf.

Chart 21: Checking on, and Sharing Food With, Others



Looking After Others



DEMOGRAPHIC DIFFERENCES

More likely to mention:



Age

Under 30: Likely to check on neighbours (35%), to share food and supplies with extended family (31%), and with neighbours (47%).

30-44: Likely to check on neighbours (31%).

45-64: Very likely to check on neighbours (75%), share food and supplies with neighbours (53%), and with others in the community (49%), and to volunteer at the civil defence centre (34%).

65+: Very likely to check on neighbours (76%) and share food and supplies with neighbours (56%).



Tenure in area

>1 year: Likely to check on neighbours (41%), and others in the community (42%), and to share food and supplies with neighbours (48%).

1-5 years: Not likely to check on others in the community (2%).

5+ years: Very likely to check on neighbours (70%).



Gender

Male: Very likely to volunteer at the civil defence centre (32%), and not likely to share food supplies with others (4%).



Urban/ rural

Urban: Likely to check on neighbours (29%), and on others in the community (33%), to share food and supplies with neighbours (42%), and with others in the community (41%).

Rural: Very likely to check on neighbours (74%), and on others in the community (71%), to share food and supplies with neighbours (56%), and with others in the community (52%).



Rural living

In small rural community: Very likely to volunteer at the civil defence centre (36%).



Country of birth

Born in NZ: Very likely to check on family members (87%) and share food and supplies with extended family (61%).

Born outside of NZ: Not likely to check on neighbours (2%).

Looking After Others



The following show statistically significant results which are higher than the total result. All results shown here are significantly higher, therefore the text has not been shaded green.

Queenstown-Lakes*

Very likely to:
check on others in the community (73%) and
share food and supplies with others (53%).

Waitaki*

Not at all likely to:
check on neighbours (1%).

Central Otago*

Very likely to:
check on neighbours (77%),
share food and supplies and
with extended family (64%)
and neighbours (54%).

Dunedin*

Likely to:
check on others in
the community (34%)
and neighbours (30%).

Clutha

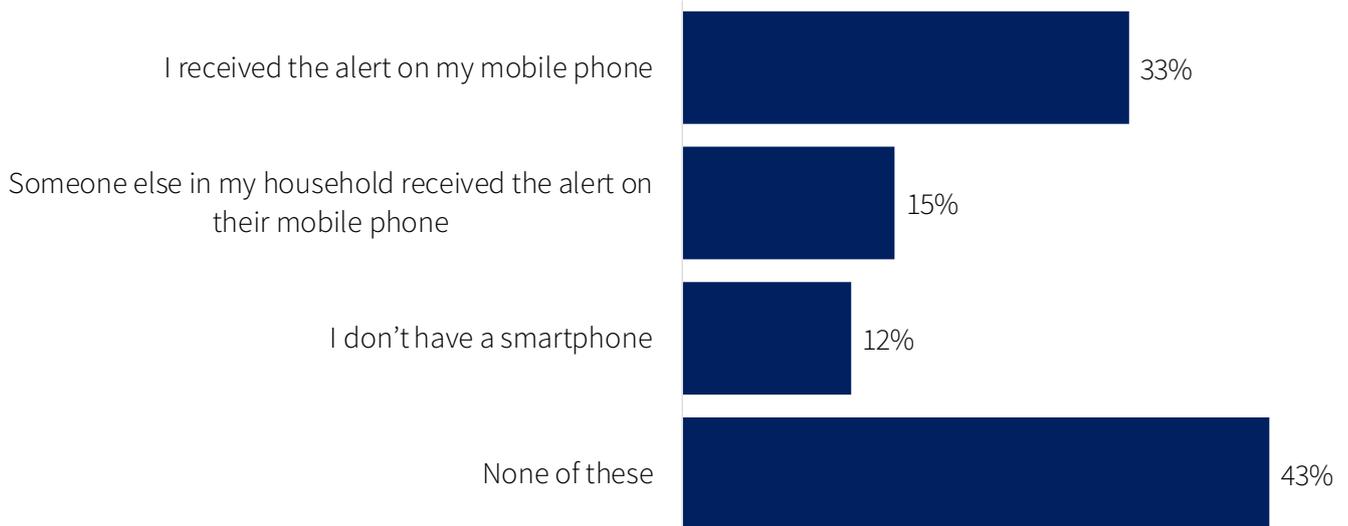
No significant
differences noted.

Mobile Alert System



A third of residents (33%) mention they received the test emergency mobile alert last November, while a further 15% of residents mention someone in their household received the alert; the overlap of people in the same house receiving the message was only 3%. Twelve per cent of residents mention they do not have a smartphone and 43% mention none of these apply to them.

Chart 22: Test Emergency Mobile Alert



DEMOGRAPHIC DIFFERENCES

More likely to mention:



Age

Under 30: I received the alert (44%).
30-44: I received the alert (38%).
65+: I don't have a smartphone (32%).



Tenure in area

1-5 years: I received the alert (40%).
5+ years: I don't have a smartphone (16%).



Gender

No significant differences noted.



Urban/ rural

Urban: I received the alert (35%).
Rural: None of these (49%).



Rural living

No significant differences noted.



Country of birth

No significant differences noted.

Mobile Alert System



The following shows all results for each area. Any statistically significant results are shown using green or orange font.

Queenstown-Lakes

I received the alert (41%).
Someone in my household received the alert (16%).
I don't have a smartphone (5%).
None of these (41%).

Waitaki

I received the alert (25%).
Someone in my household received the alert (12%).
I don't have a smartphone (17%).
None of these (48%).

Central Otago

I received the alert (30%).
Someone in my household received the alert (12%).
I don't have a smartphone (14%).
None of these (46%).

Dunedin

I received the alert (35%).
Someone in my household received the alert (19%).
I don't have a smartphone (10%).
None of these (42%).

Clutha

I received the alert (29%).
Someone in my household received the alert (16%).
I don't have a smartphone (19%).
None of these (39%).

Civil Defence Centres



Forty-one per cent of residents indicate they know the location of civil defence centres in their community. A further 47% do not know the location, while 13% are not sure.

Chart 23: Location of Civil Defence Centres



■ Know the location ■ Do not know the location ■ Not sure

DEMOGRAPHIC DIFFERENCES

More likely to mention:



Age

Under 30: Do not know the location (64%).
45-64: Know the location (47%).
65+: Know the location (50%).



Tenure in area

>1 year: Do not know the location (71%).
1-5 years: Do not know the location (51%).
5+ years: Know the location (48%).



Gender

No significant differences noted.



Urban/ rural

Urban: Do not know the location (50%).
Rural: Know the location (48%).



Rural living

No significant differences noted.



Country of birth

Born in NZ: Know the location (43%).
Born outside of NZ: Do not know the location (53%).

Civil Defence Centres



The following shows all results for each area. Any statistically significant results are shown using green or orange font.

Queenstown-Lakes

Know location (39%).
Do not know location (48%).
Not sure (13%).

Waitaki

Know location (47%).
Do not know location (40%).
Not sure (14%).

Central Otago

Know location (39%).
Do not know location (46%).
Not sure (15%).

Clutha

Know location (52%).
Do not know location (37%).
Not sure (12%).

Dunedin

Know location (34%).
Do not know location (55%).
Not sure (12%).

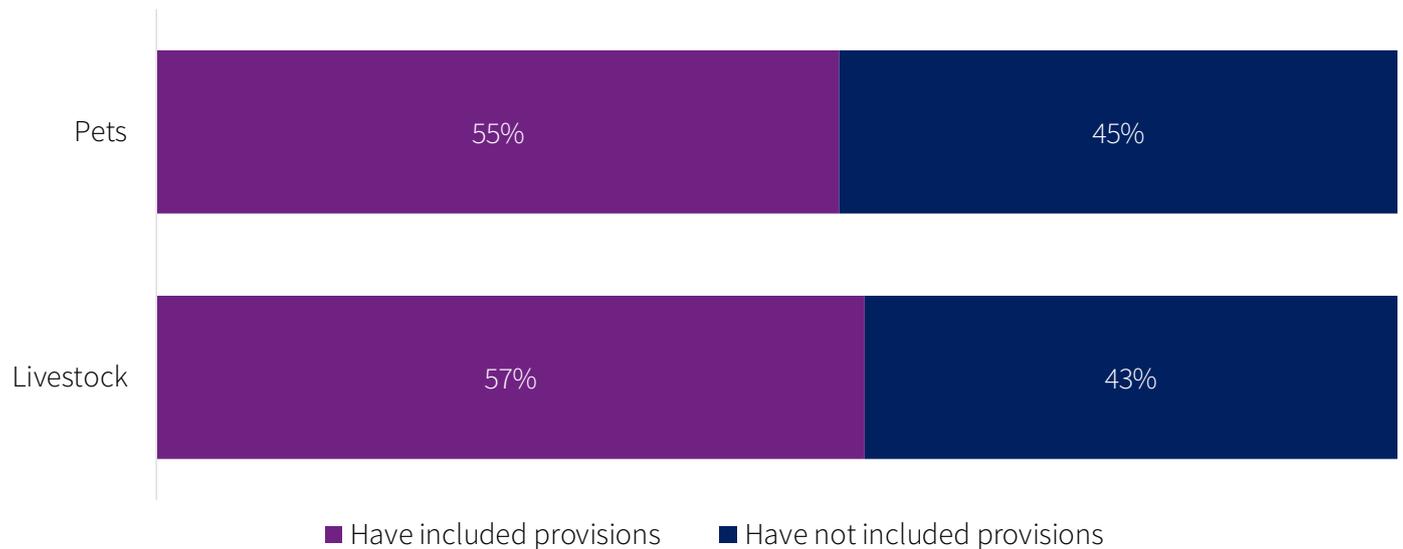
Pet and Livestock Provision



Sixty per cent of residents indicate they have pets, of these residents 55% mention they have included provisions for their pets in their emergency plan.

Sixteen per cent of residents mention they have livestock, of these residents 57% indicate they have included provisions for their livestock in their emergency plan.

Chart 24: Provisions for Pet and Livestock



DEMOGRAPHIC DIFFERENCES

More likely to mention:



Age

Under 30: Not included provisions for pets (59%).

30-44: Not included provisions for pets (54%).

45-64: Included provisions for pets (64%).

65+: Included provisions for pets (71%).



Tenure in area

No statistically significant differences.



Gender

No statistically significant differences.



Urban/ rural

Urban: Not included provisions for pets (50%).

Rural: Have included provisions for pets (62%).



Rural living

No statistically significant differences.



Country of birth

No statistically significant differences.

Pet and Livestock Provision



The following shows all results for each area. Any statistically significant results are shown using green or orange font.

Queenstown-Lakes

Included provision for:
Pets (57%).
Livestock (54%).

Waitaki

Included provision for:
Pets (62%).
Livestock (63%).

Central Otago

Included provision for:
Pets (58%).
Livestock (50%).

Clutha

Included provision for:
Pets (56%).
Livestock (55%).

Dunedin

Included provision for:
Pets (47%).
Livestock (66%).



Information and Communication

Awareness of Information
Sources Before and During
an Emergency, and of Civil
Defence Advertisements

Summary of Findings

58% have heard or seen advertising on **radio or TV** about being prepared for an emergency



During an emergency **84%** would use the **radio** to source information



62% would go to **civil defence centres** to source information



60% would use **Ministry of Civil Defence Website,**

50% would use their **local council's website, and**

50% would **listen to the radio** to look for information on how to prepare



68% have seen **'long or strong, get gone'** advertisement



80% have seen **'drop, cover, hold'** advertisement



23% have seen **'never happens, happens'** advertisement

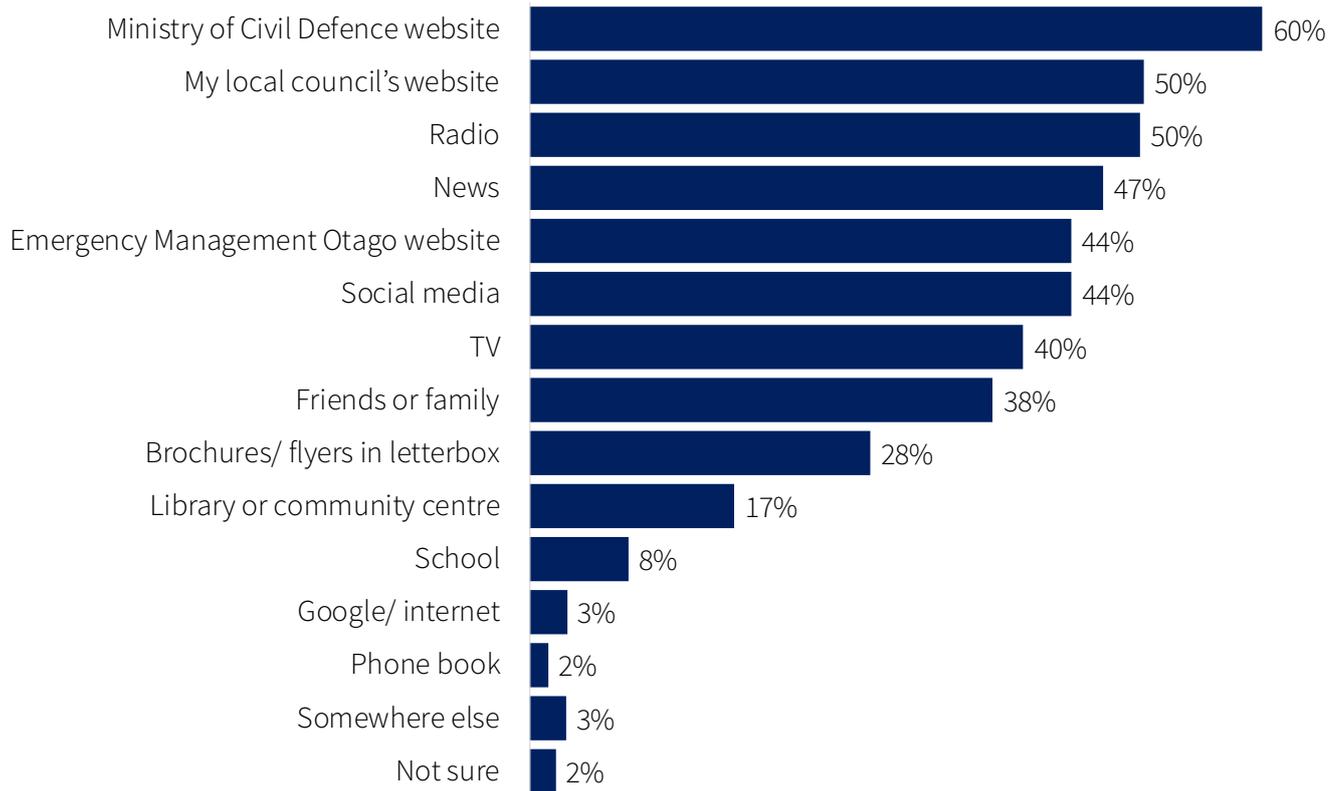


Information to Prepare



Sixty per cent of residents indicate they would use the Ministry of Civil Defence website to look for information on how to prepare for an emergency. Following this, residents would use their local council's website (50%), listen to the radio (50%), and the news (47%) to get information on preparing for an emergency. Demographic differences are shown overleaf.

Chart 25: Information Sources for How to Prepare



Information to Prepare



DEMOGRAPHIC DIFFERENCES

More likely to mention:



Age

Under 30: Social media (59%) and friends or family (53%).

30-44: Ministry of Civil Defence website (67%), social media (50%), school (11%), and Google/ internet (5%).

45-64: Ministry of Civil Defence website (66%).

65+: Radio (66%), news (58%), TV (54%), brochures (35%), and library or community centre (22%).



Urban/ rural

No significant differences noted.



Tenure in area

1-5 years: Social media (49%), friends or family (42%), and Google/ internet (5%).

5+ years: Local council's website (54%), TV (43%), and phone book (2%).



Rural living

No significant differences noted.



Gender

Male: Google/ internet (4%).

Female: Local council's website (53%) and social media (48%).



Country of birth

Born outside of NZ: Google/ internet (6%).

Information to Prepare



The following shows the top three mentions made for each area. Any statistically significant results are also shown, these are coloured using green and orange fonts.

Queenstown-Lakes

Ministry of Civil Defence website (62%),
local council's website (47%),
social media (43%),
radio (42%),
news (41%),
Emergency Management
Otago website (37%),
friends or family (32%),
brochures/ flyers in letterbox (23%),
and Google/ internet (6%).

Waitaki

Radio (55%), news (50%),
Ministry of Civil Defence
website (50%),
Emergency Management
Otago website (36%), and
library or community centre (12%).

Central Otago

Ministry of Civil Defence
website (58%),
radio (53%),
local council's website (51%),
social media (36%), and
friends or family (31%).

Clutha

Ministry of Civil Defence website (59%),
local council's website (54%),
radio (52%), and
library or community centre (24%).

Dunedin

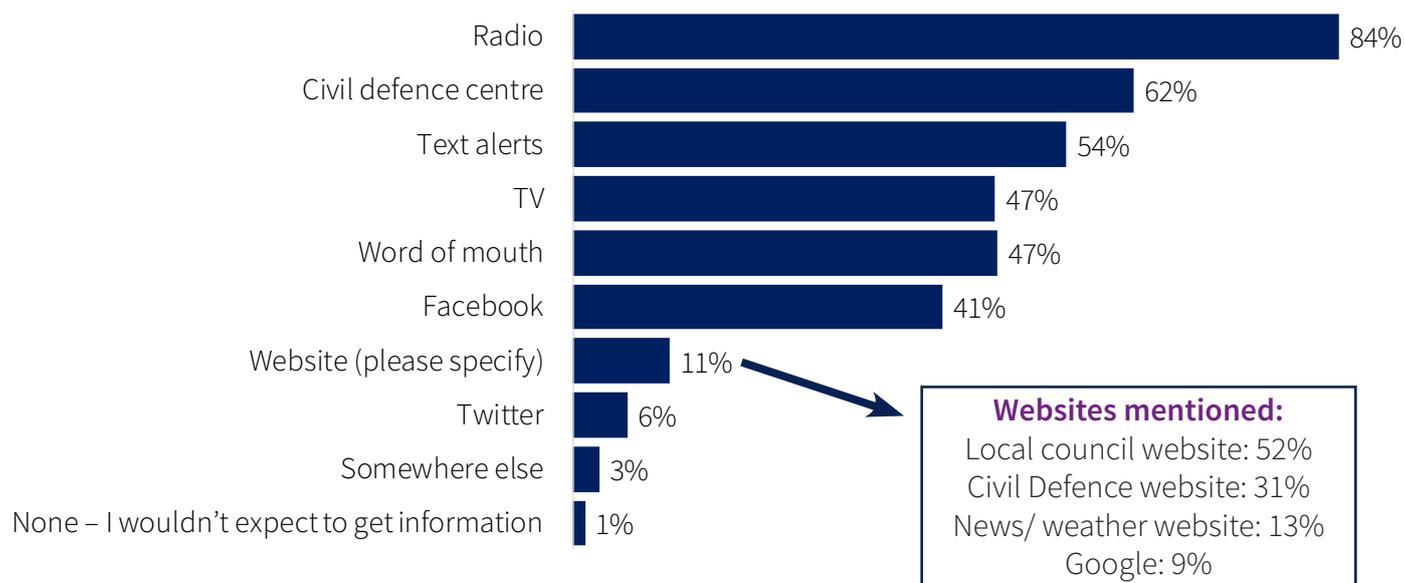
Ministry of Civil Defence website (65%),
Emergency Management
Otago website (52%),
local council's website (51%), and
friends or family (45%).

During Emergency



During an emergency, 84% of residents would listen to the radio to get information. At a lower level, residents mention they would get information during an emergency at civil defence centres (62%), from text alerts (54%), on TV (47%), through word of mouth (47%), and on Facebook (41%).

Chart 26: Information Sources During an Emergency



DEMOGRAPHIC DIFFERENCES

More likely to mention:



Age

Under 30: Text alerts (63%), word of mouth (58%), Facebook (62%), and Twitter (10%).
30-44: Facebook (50%) and Twitter (8%).
45-64: Civil defence centre (66%).
65+: Radio (88%) and TV (54%).



Tenure in area

5+ years: TV (49%).



Gender

Female: Facebook (44%).



Urban/ rural

Urban: Text alerts (57%), word of mouth (49%), and Twitter (7%).



Rural living

On a lifestyle block: Radio (88%).



Country of birth

Born in NZ: Radio (86%).
Born outside of NZ: Word of mouth (53%).

During Emergency



The following shows the top three mentions made for each area. Any statistically significant results are also shown, these are coloured using green and orange fonts.

Queenstown-Lakes

Radio (84%),
civil defence centre (61%),
text alerts (60%),
TV (39%), and
website (15%).

Waitaki

Radio (84%),
civil defence centre (58%),
TV (50%),
text alerts (45%),
website (7%), and
Twitter (2%).

Central Otago

Radio (88%),
civil defence centre (64%),
text alerts (51%),
Facebook (31%), and
Twitter (3%).

Dunedin

Radio (85%),
civil defence centre (61%),
text alerts (58%),
Facebook (49%), and
Twitter (10%).

Clutha

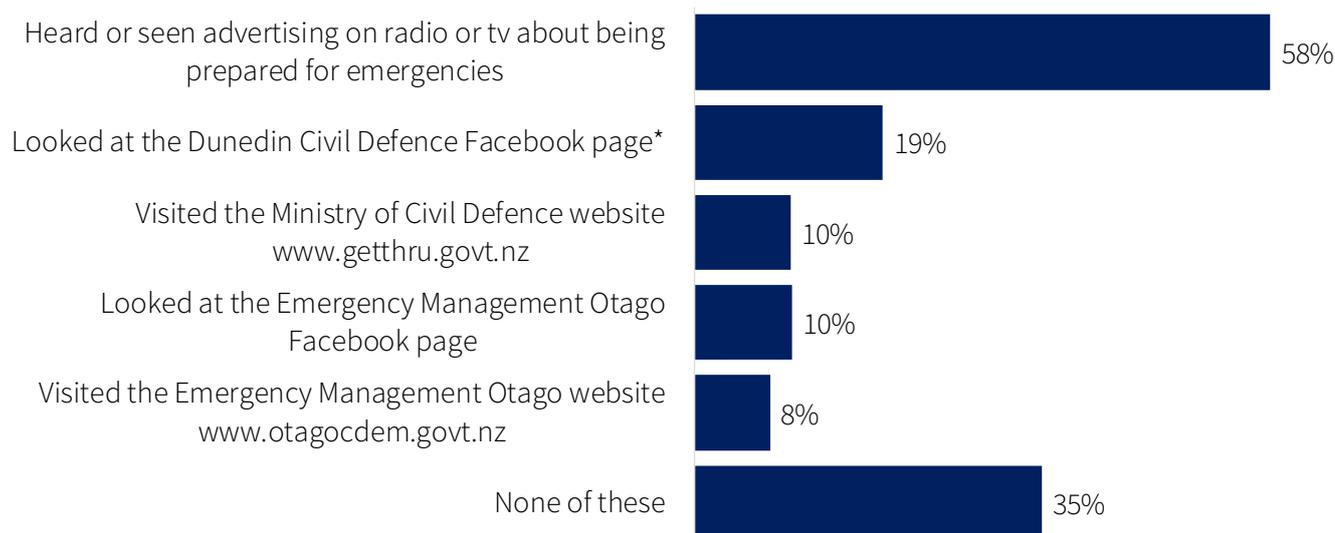
Radio (81%),
civil defence centre (66%),
and text alerts (54%).

Specific Information



Over half (58%) of residents have heard or seen information on radio and TV about being prepared for an emergency in the past six months. Ten per cent (each) have visited the Ministry of Civil Defence website and the Emergency Management Otago Facebook page. Notably, 35% of residents mention they have not seen or heard advertising or been to any of the websites or Facebook pages.

Chart 27: Specific Information Seen or Used



*Dunedin residents only

DEMOGRAPHIC DIFFERENCES

More likely to mention:



Age

Under 30: Emergency Management Otago (18%) and Dunedin Civil Defence (19%) Facebook pages.

30-44: Ministry of Civil Defence website (18%), Emergency Management Otago website (11%), and Dunedin Civil Defence Facebook page (28%).

65+: None of these (40%).



Tenure in area

1-5 years: Emergency Management Otago Facebook page (15%), Emergency Management Otago website (11%), and Dunedin Civil Defence Facebook page (30%).

5+ years: Heard or seen advertising (61%).



Gender

Male: Emergency Management Otago website (9%).



Rural living

In small rural community:

Ministry of Civil Defence website (13%).

On farm: Heard or seen advertising (69%).



Country of birth

No significant differences noted.



Urban/ rural

Urban: Dunedin Civil Defence Facebook page (8%).

Specific Information



The following shows all results for each area. Any statistically significant results are also shown, these are coloured using green and orange fonts.

Queenstown-Lakes

Heard or seen advertising (51%),
Ministry of Civil Defence website (13%),
Emergency Management Otago Facebook page (6%),
Emergency Management Otago website (4%), and
none of these (43%).

Waitaki

Heard or seen advertising (64%),
Ministry of Civil Defence website (7%),
Emergency Management Otago Facebook page (6%),
Emergency Management Otago website (7%), and
none of these (31%).

Central Otago

Heard or seen advertising (58%),
Ministry of Civil Defence website (5%),
Emergency Management Otago Facebook page (8%),
Emergency Management Otago website (6%), and
none of these (37%).

Dunedin

Heard or seen advertising (56%),
Ministry of Civil Defence website (13%),
Emergency Management Otago Facebook page (14%),
Emergency Management Otago website (11%),
Dunedin Civil Defence Facebook page (19%), and
none of these (35%).

Clutha

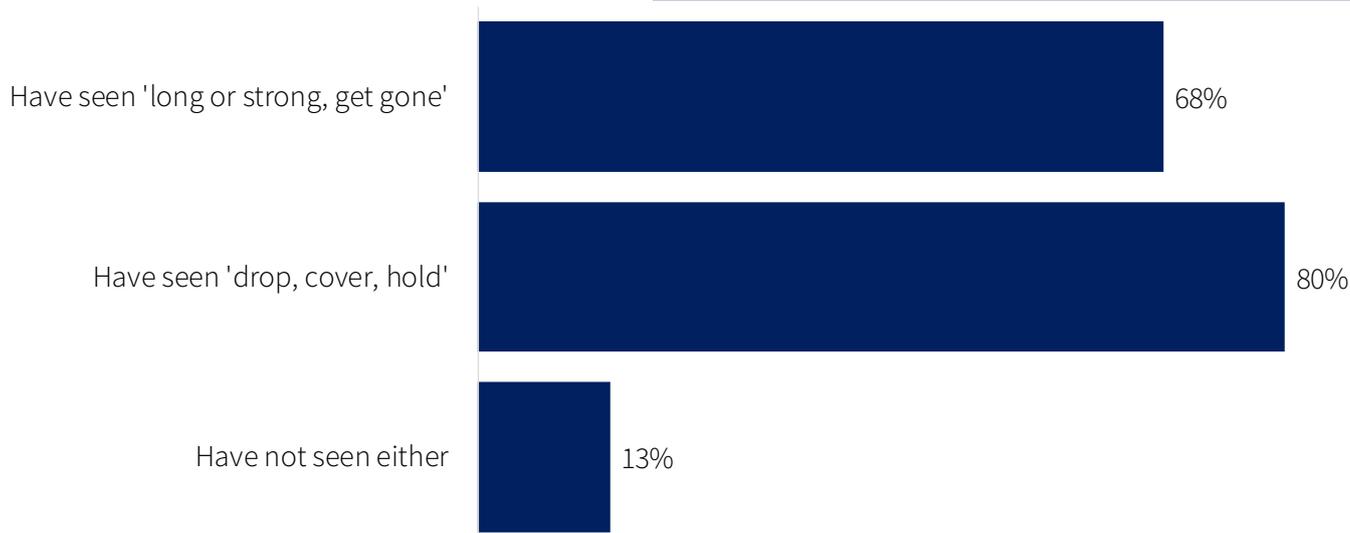
Heard or seen advertising (64%),
Ministry of Civil Defence website (8%),
Emergency Management Otago Facebook page (12%),
Emergency Management Otago website (8%), and
none of these (29%).

Advertising Awareness



Eighty per cent of residents have seen the 'drop, cover, hold' image; a further 68% have seen the 'long or strong, get gone' image. Overall, 13% of residents have not seen either of these. The images used are included below.

Chart 28: Earthquake Advertising Awareness



DEMOGRAPHIC DIFFERENCES

More likely to mention:



Age

Under 30: Have not seen either (17%).

45-64: Have seen 'long or strong, get gone' (74%).

65+: Have seen 'long or strong, get gone' (73%) and 'drop, cover, hold' (85%).



Tenure in area

5+ years: Have seen 'long or strong, get gone' (70%).



Gender

Male: Have not seen either (15%).

Female: Have seen 'drop, cover, hold' (82%).



Urban/rural

No statistically significant differences.



Rural living

No statistically significant differences.



Country of birth

No statistically significant differences.

Advertising Awareness



The following shows all results for each area. Any statistically significant results are shown using green or orange font.

Queenstown-Lakes

Have seen 'long or strong, get gone' (60%).
Have seen 'drop, cover, hold' (79%).
Have not seen either (16%).

Waitaki

Have seen 'long or strong, get gone' (70%).
Have seen 'drop, cover, hold' (78%).
Have not seen either (12%).

Central Otago

Have seen 'long or strong, get gone' (70%).
Have seen 'drop, cover, hold' (86%).
Have not seen either (9%).

Dunedin

Have seen 'long or strong, get gone' (66%).
Have seen 'drop, cover, hold' (78%).
Have not seen either (16%).

Clutha

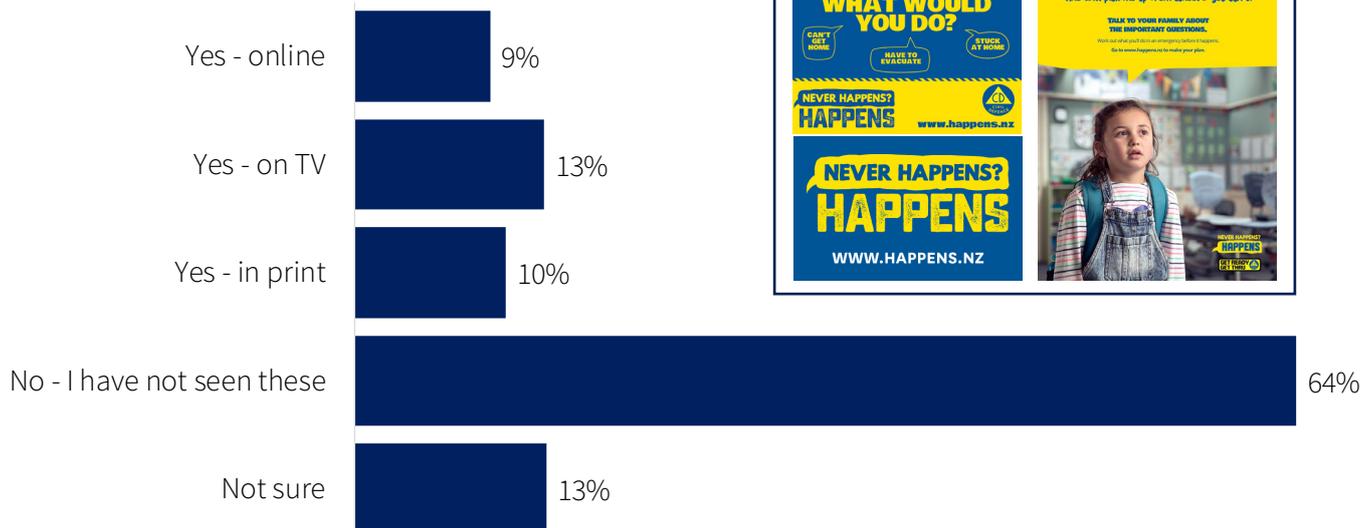
Have seen 'long or strong, get gone' (76%).
Have seen 'drop, cover, hold' (81%).
Have not seen either (11%).

Advertising Awareness



Twenty-three per cent (total) of residents have seen the images either online (9%), on TV (13%), or in print (10%). Sixty-four per cent of residents have not seen any of these images and 13% are not sure. The images used are shown below.

Chart 29: Advertising Awareness



DEMOGRAPHIC DIFFERENCES

More likely to mention:



Age

Under 30: Online (17%).



Tenure in area

No statistically significant differences.



Gender

No statistically significant differences.



Urban/ rural

Urban: Online (11%).



Rural living

No statistically significant differences.



Country of birth

Born in NZ: On TV (15%).
Born outside of NZ: Have not seen these (71%).

Advertising Awareness



The following shows all results for each area. Any statistically significant results are shown using green or orange font.

Queenstown-Lakes

Yes - online (7%),
TV (8%),
in print (7%).
Have not seen these (70%).
Not sure (14%).

Waitaki

Yes - online (8%),
TV (15%),
in print (10%).
Have not seen these (62%).
Not sure (14%).

Central Otago

Yes - online (5%),
TV (16%),
in print (11%).
Have not seen these (64%).
Not sure (14%).

Dunedin

Yes - online (13%),
TV (12%),
in print (10%).
Have not seen these (64%).
Not sure (11%).

Clutha

Yes - online (9%),
TV (15%),
in print (12%).
Have not seen these (60%).
Not sure (13%).

Area Summaries

Reading This Section

This section includes area summaries for each of the five districts within the Otago region. Most of the information in these summaries relates to information from across the district, in line with the results included throughout the rest of the report. However, any statistically significant differences in results from communities within each district are also reported. For example, within the Queenstown-Lakes summary there is reference to both Queenstown-Lakes residents (this includes responses from the whole district) and also to Frankton residents (this only includes responses from residents who live in Frankton).

Queenstown-Lakes Summary



Queenstown-Lakes residents are more likely to be aged 30-44 years old, to live in an urban area, and the majority of residents indicate they have lived in the area for more than five years.

HAZARD AND RISK AWARENESS

When asked about how natural hazards and risks could affect themselves and their family, Queenstown-Lakes residents are more likely to mention earthquake (91%), fire (52%), landslide (38%), and avalanche (5%), however they are less likely to mention tsunami (14%) and volcano (1%). Lake Hayes/ Shotover Country residents are more likely to mention flood (84%), Hawea residents are more likely to mention fire (82%), and Gibbston Valley residents are more likely to mention an impact of the hazard or risk (65%), e.g., road closures or power cuts.

When prompted, Queenstown-Lakes residents also appear to be concerned about vegetation fire, landslides, and earthquakes as they mention these most frequently when asked about specific affects of natural hazards and risks impacting their lives. Not surprisingly, 65% of Queenstown-Lakes residents mention an earthquake is most likely to affect them personally, this is significantly higher than the total result. The majority (82%) of Queenstown-Lakes residents also identify tsunami as the least likely to affect them personally, significantly higher than the total result. When asked the correct action to take during an earthquake, Queenstown-Lakes residents are more likely to mention stop, drop/ cover, hold (43%).

Interestingly, almost half (43%) of Queenstown-Lakes residents mention they will definitely experience a severe earthquake in their lifetime, significantly higher than the total result. Lake Hayes/ Shotover Country residents are also more likely to indicate they will definitely experience a severe earthquake in their lifetime (60%). Around a quarter of Queenstown-Lakes residents have seen the community response plan.

PREPAREDNESS FOR AN EMERGENCY

Queenstown-Lakes residents are more likely to mention they are somewhat prepared for an emergency (68%) and less likely to mention they are not prepared (18%). Notably, Wanaka/ Albert Town residents are more likely to mention they are not sure if they are sufficiently prepared for an emergency (7%). When asked why they are prepared, Queenstown-Lakes residents are more likely to mention they have an emergency kit, but it needs updating (6%).

AREA SAMPLE



Age

Under 30: 19%
30-44: 35%
45-64: 34%
65+: 12%



Tenure in area

>1 year: 11%
1-5 years: 37%
5+ years: 52%



Gender

Male: 53%
Female: 47%



Urban/ rural

Urban: 75%
Rural: 25%

“We need to arrange a drinking water supply, or at least get water treatment equipment (tablets, microfilter). We also need to arrange a battery operated radio and alternative cooking energy (portable gas cooker with bottle). Equip car with warm clothing, water, some food, discuss evacuation routes, and discuss meeting points, should we be separated.”

Around half of Queenstown-Lakes residents are likely to prepare for an emergency in the next six months, in line with total level results. Lake Hayes/ Shotover Country (22%) and Gibbston Valley residents (65%) are more likely to mention they are very likely to take further steps to prepare in the next six months. Queenstown-Lakes residents who are likely to make preparations in the next six months are more likely to mention they are going to buy canned or non-perishable grocery items. Queenstown-Lakes residents who are not likely to take steps to further prepare in the next six months mention they would be motivated by an earthquake or emergency (22%) and are less likely to mention nothing would motivate them (3%).

When asked about their preparations, Queenstown-Lakes residents are more likely to mention they have acquired alternative means of cooking (75%). Queenstown residents are more likely to mention they have none of the specified list (26%), while Wakatipu Basin residents are more likely to mention they have stored non-perishable food and other essential items (94%) and Wanaka/ Albert Town residents are more likely to have put together a grab bag (43%).

Queenstown-Lakes residents are also more likely to strongly agree that it is their responsibility to ensure themselves and their family are both prepared for an emergency (64%) and to look after themselves and their family for at least three days in an emergency (63%). Queenstown-Lakes residents also mention they are very likely to check on others in the community during or after an emergency (73%) and share food supplies with others in the community (53%).

Just under half (41%) of Queenstown-Lakes residents received the test emergency mobile alert last November, significantly higher than the total result. Interestingly, only 5% of Queenstown-Lakes residents mention they don't have a smartphone, significantly lower than the total result. Queenstown residents are more likely to mention they received the alert (54%), while Glenorchy/ Closeburn (18%) and Wanaka/ Albert Town residents (11%) are more likely to mention they do not have a smartphone.

Thirty-nine per cent of Queenstown-Lakes residents know the location of the civil defence centre in their community. Glenorchy/ Closeburn residents are more likely to indicate they know the location of the civil defence centres (87%). Of pet owners in Queenstown-Lakes, 57% have made provisions for their pets. Of livestock owners, 54% have made provisions for their livestock.



“Depends where you are when it strikes. I may not be able to reach home where I have somewhat sufficient supplies to manage for a few days, but I can’t hold enough water that would stay fresh. I keep a 5L container of water, but I fear it would not be enough, unless we could use lake water? It also depends on the damage as to if I can get to stored food sources.”



INFORMATION AND COMMUNICATION

When asked where residents would look for information on how to prepare for an emergency, Queenstown-Lakes residents are more likely to mention they would look on Google (6%) and less likely to mention the radio (42%), the news (41%), the Emergency Management Otago website (37%), friends or family (32%), or brochures/ flyers in their letterbox (23%). Queenstown residents are more likely to mention they would use their local council's website (57%), while Lake Hayes/ Shotover Country residents mention they would use social media (60%) to look for information on how to prepare.

During an emergency, Queenstown-Lakes residents are more likely to mention they would look on a website for information (15%). Queenstown residents are more likely to mention they would expect to get text alerts during an emergency (74%).

Queenstown-Lakes residents are more likely to have not visited any of the websites or Facebook pages mentioned (43%), are less likely to have seen the 'long or strong, get gone' advertisement (60%), and are more likely to have not seen any (70%) of the advertisements online, on TV, or in print.



"I have a good amount of food on hand and live close to a lake and rivers for water supply. I have a lot of camping gear and gas for cooking/boiling water."

Waitaki Summary



Waitaki residents are more likely to be aged 45+, to be female, and to be living alone. More than half of Waitaki residents have lived in the area for more than five years, and they are more likely to have experienced an emergency in New Zealand previously.

HAZARD AND RISK AWARENESS

When asked about awareness of natural hazards and risks that could affect them and their family, Waitaki residents are more likely to mention tsunami (60%) and less likely to mention fire (33%) or landslide (16%). On average, Waitaki residents mention just over three natural hazards or risks each. Oamaru residents are more likely to mention tsunami (66%), while Palmerston residents mention flood (96%), and Ahuriri residents mention landslide (78%).

Waitaki residents are more likely to mention that a tsunami is the hazard they think will have the biggest affect on their life, with this being the primary mention regarding the affect on them personally and to the infrastructure they use. Waitaki residents are more likely to mention that a flood (21%) or tsunami (7%) are more likely to affect them, while these residents appear least worried about landslides (33%) or fire (12%), with these more likely to be noted as least likely to affect them.

When asked about the correct action to take in an earthquake, Waitaki residents are more likely to mention you should go outside (14%) and to stay where you are (2%), and are less likely to mention you should move to an open area outside (7%). Ahuriri residents mention the correct action is to stay where you are (42%). Waitaki residents are also more likely to mention if you are near the coast when an earthquake hits, you should evacuate (2%).

Waitaki residents are more likely to mention that they do not think they will experience a severe earthquake in their lifetime (9%). Just over a quarter (28%) of these residents are aware of the evacuation zone map and of these residents, 80% have checked the map. Of Waitaki residents who have checked the map, 71% correctly identify the red zone, 59% the orange zone, and 59% the yellow zone.

PREPAREDNESS FOR AN EMERGENCY

Waitaki residents are more likely to mention they are very prepared for an emergency (14%). Corriedale residents are more likely to mention they have water (53%), tinned or dried food (47%), and a torch, candles, matches, radio, or batteries (28%).

AREA SAMPLE



Age

Under 30: 15%
30-44: 18%
45-64: 34%
65+: 32%



Tenure in area

>1 year: 8%
1-5 years: 30%
5+ years: 61%



Gender

Male: 38%
Female: 62%



Urban/ rural

Urban: 65%
Rural: 35%

“I am off the grid, I have solar/ batteries and a generator for power, multiple water tanks to hold water, pantry full of tins and dried food, my hot water and cooking is gas and I have a spare bottle, my vehicle is 4WD, and my horse truck is also set for living.”

Waitaki residents are more likely to mention they are not at all likely to take further steps to prepare for an emergency in the next six months (8%). Motivations to prepare for Palmerston residents revolve around an earthquake or emergency (45%). In terms of preparations residents have already made, those living in Waitaki are more likely to mention they have put together a grab bag of essential items (34%). Corriedale residents are more likely to mention they have acquired an alternative means of cooking (80%).

Waihemo residents are more likely to mention they are very likely to volunteer to help at the civil defence centre (66%), while Corriedale residents are very likely to share food or supplies with extended family (80%).

Notably, Waitaki residents are less likely to have received the test emergency mobile alert last November (25%) and more likely to mention they do not have a smartphone (17%). Although, residents from Ahuriri are more likely to have received the alert (78%).

Almost half (47%) of Waitaki residents know the location of civil defence centres in their community, significantly higher than the total result. Waitaki pet owners are also more likely to have made provisions for their pets in their emergency plan (62%).



INFORMATION AND COMMUNICATION

Waitaki residents are less likely to mention they would look for information on how to prepare for an emergency on Ministry of Civil Defence website (50%), Emergency Management Otago website (36%), and at a library or community centre (12%). Palmerston residents are more likely to mention they would use brochures or flyers in their letterbox to receive information on how to prepare for an emergency (59%).

Waitaki residents are also less likely to mention they would expect to receive information through text alerts (45%), a website (7%), and on Twitter (2%) during an emergency. Interestingly, Waitaki residents are more likely to have seen or heard advertising on radio or TV about being prepared for emergencies (64%) but are less likely to have visited the Emergency Management Otago Facebook page (6%).



“A natural disaster would encourage me to prepare, or if the government subsidised a kit for every household. Maybe when the public service announcement about smoke alarm checks go out, there could be a reminder to refresh your kits?”

“We already keep a back pack with food for a week or so, with medical supplies, dog food, etc. This is updated yearly.”

Dunedin Summary



Dunedin residents are more likely to be aged 18-29 and to have been born in New Zealand. Dunedin residents are more likely to live in a flatting situation and to have lived in Dunedin for less than five years. Although the majority of Dunedin residents live in urban areas, those who live in rural areas are more likely to mention they live in small rural communities.

HAZARD AND RISK AWARENESS

Those who live in Dunedin are more likely to have greater awareness that a tsunami (49%), landslide (35%), or volcano (3%) could affect them. Residents in Dunedin City are more likely to be aware of an earthquake (88%), while those in Mosgiel are more likely to mention flooding (97%). Waikouaiti/ Waitati (79%), Otago Peninsula (69%), and Rural Dunedin (70%) are more likely to mention a tsunami.

Landslide does appear to be more of a concern for Dunedin residents, with this mentioned the most when asked about which natural hazards and risks will affect them personally and the infrastructure they use, and they are also more likely to mention that landslide is the natural hazard or risk that is the most likely to affect them (8%). When asked about the correct action to take during an earthquake, Dunedin residents are more likely to mention they are not sure (1%). However, if near the coast when an earthquake strikes, Dunedin City residents are more likely to mention get outside (5%) and move outside and away from buildings (1%). One third (33%) of Dunedin residents agree they will definitely experience a severe earthquake in their lifetime, on a par with total level results. Otago Peninsula residents are more likely to mention they will not experience a severe earthquake in their lifetime (16%).

Thirty-four per cent of Dunedin residents are aware of the evacuation zone map, and of these residents 76% have checked the map. Seventy-seven per cent of residents who have checked the map correctly identified the red zone, 50% the orange zone, and 49% the yellow zone.

PREPAREDNESS FOR AN EMERGENCY

Dunedin residents are more likely to mention they are not prepared for an emergency (35%), with one third (31%) of these residents mentioning this is because they have no plan or emergency kit. Dunedin City residents are more likely to mention they are not prepared for an emergency (38%), while Mosgiel residents mention they are somewhat prepared (69%) and Rural Dunedin residents mention they are very prepared (27%). Even Dunedin residents who mention they are prepared for an emergency are more likely to mention they need to add to, or update, existing supplies (3%).

AREA SAMPLE



Age

Under 30: 37%
30-44: 22%
45-64: 27%
65+: 14%



Tenure in area

>1 year: 16%
1-5 years: 37%
5+ years: 47%



Gender

Male: 51%
Female: 48%



Urban/ rural

Urban: 87%
Rural: 13%

“The likelihood of an earthquake in this area is, I think, remote in my lifetime. We are up a steep hill well out of the way of any tsunami. Landslip, fire, or storm would be the most likely, but my fingers are crossed.”

On a par with total level results, almost half (46%) of Dunedin residents are likely to take steps to prepare for an emergency in the next six months. These residents are more likely to mention that they would be motivated to prepare if they received financial assistance to update or get emergency kits (12%), while these residents are less likely to mention an earthquake or emergency (12%) would motivate them to be prepared, or that they are already prepared (4%). Notably, Waikouaiti/ Waitati residents are more likely to mention they are not at all likely to take further steps to prepare (16%).

Dunedin residents are more likely to mention they have not done anything to prepare for an emergency (19%). Although, Mosgiel (68%), Waikouaiti/ Waitati (78%), and rural Dunedin residents (74%) mention they have stored water.

Dunedin residents are also more likely to mention they neither agree nor disagree that it is their responsibility to be prepared for an emergency (6%), although they are more likely to mention they will check on others in their community (34%) and neighbours (30%) during an emergency. Taieri Plain residents are more likely to mention they are very likely to share food and supplies with neighbours (71%).

Dunedin residents are more likely to mention that someone in their house received the test emergency text message last November (19%), however they are less likely to indicate they know the location of the Civil Defence centre in their community (34%). Otago Peninsula residents are more likely to mention they received the alert on their phone (58%), while Dunedin City residents mention someone in their household received the alert (21%). Taieri Plain residents are more likely to mention they know the location of civil defence centres in their community (60%). Pet owners in Dunedin are less likely to indicate they have included provisions for their pets (47%).



“We always have a good food stash, but not a lot of lighting, and would rely on large water cisterns for water.”

“Can never be prepared enough for the unexpected.”



INFORMATION AND COMMUNICATION

Dunedin residents are more likely to mention they would use the Ministry of Civil Defence website (65%), Emergency Management Otago website (52%), and friends or family (45%) to look for information on how to prepare for an emergency. Notably, Port Chalmers residents would use the Emergency Management Otago website (82%), while Mosgiel (34%), Waikouaiti (37%), and Port Chalmers (42%) residents are more likely to mention they would use a library or community centre to gather information.

During an emergency, Dunedin residents are more likely to mention they would look on Facebook (49%) or Twitter (10%) to find information. Dunedin residents are more likely to mention that in the past six months they have visited the Ministry of Civil Defence website (13%), Emergency Management Otago Facebook page (14%), and Emergency Management Otago website (11%). Mosgiel residents are also more likely to mention they have heard or seen advertising on the radio or the TV about preparing for an emergency (72%). When asked about specific advertisements, Dunedin residents are more likely to mention they have seen them online (13%). However, Waikouaiti/ Waitati residents mention they have not seen any of the advertisements (89%).

“I live on my own and am elderly. Also, it is difficult to know where to store an emergency pack as the house is two-story.”

Clutha Summary



Clutha residents are more likely to be aged 45-64 and to have been born in New Zealand. They are also more likely to identify their living situation as being a couple with no children at home and that they have lived in the area for more than five years. Clutha residents are more likely to own the home they live in, and to live in a rural area.

HAZARD AND RISK AWARENESS

When asked what natural hazards and risks they are aware of that could affect them, Clutha residents are more likely to mention a flood (81%) and are less likely to mention earthquake (72%), fire (30%), tsunami (22%), and landslide (12%). Lawrence (64%) and West Otago residents (60%) are more likely to mention severe weather or cyclone, while those living in the Catlins are more likely to mention tsunami (71%). Clutha residents are also more likely to mention flood as the natural hazard or risk which would affect them personally and the infrastructure they use. Not surprisingly, Clutha residents are more likely to mention flood (29%) as the natural hazard or risk which is most likely to affect them.

When asked what the correct action to take during an earthquake is, Clutha residents are more likely to mention move to an open area outside (14%). Clutha residents are more likely to indicate they are not sure if they will experience a severe earthquake in their lifetime (11%) and are less likely to mention they definitely will (27%). Balclutha residents are more likely to mention they might experience a severe earthquake in their lifetime (64%).

On a par with total level results, 34% of Clutha residents are aware of the evacuation zone map, with a further 80% of these residents mentioning they have checked the map. Seventy-two per cent of Clutha residents who have checked the map correctly identify the red zone, 58% the orange zone, and 46% the yellow zone.

PREPAREDNESS FOR AN EMERGENCY

On a par with total level results, 11% of Clutha residents mention they are very prepared for an emergency. Catlins residents are more likely to mention they are very prepared for an emergency (30%). When asked, Clutha residents are more likely to mention that reasons for their preparedness pertain to having a first aid kit (10%). Residents in West Otago (24%) and Catlins (18%) are more likely to mention they are already self sufficient.

Forty-one per cent of Clutha residents mention they are likely to make further preparations for an emergency in the next six months. Lawrence residents are more likely to mention they are very likely to take further steps to prepare (23%). On a par with total level results, 28% of Clutha residents

AREA SAMPLE



Age

Under 30: 21%
30-44: 20%
45-64: 39%
65+: 20%



Tenure in area

>1 year: 8%
1-5 years: 24%
5+ years: 68%



Gender

Male: 45%
Female: 54%



Urban/ rural

Urban: 42%
Rural: 58%

“Not many fault lines in area but you never know what could happen.”

who are likely to make preparations in the next six months mention they will organise an emergency kit, while motivations appear to revolve around an earthquake or emergency occurring (20%), or a warning or extreme weather forecast (13%).

When asked what preparations Clutha residents have made, 73% mention they have acquired an alternative means of cooking, on a par with total level results. Lawrence residents are more likely to mention they have stored water (79%), while Catlins residents mention they have made a plan about what to do if you are at home (64%) and have put together a grab bag of essential items (48%).

Thirty-seven per cent of Clutha residents mention their workplace has made preparations to keep operating after an emergency. Clutha residents are more likely to mention they don't have a smartphone (19%) when asked if they received the test emergency text message last November. Notably, Catlins residents are more likely to mention they did not receive the test text (59%). Clutha residents are more likely to mention they know the location of the civil defence centre in their community (52%). Of pet owners in Clutha, 56% have included provisions for them, while 55% of livestock owners have included provisions for their livestock; these are on a par with total level results.

INFORMATION AND COMMUNICATION

Clutha residents are more likely to mention they would get information from a library or community centre (24%) if they were looking to prepare for an emergency, while during an emergency 81% of Clutha residents mention they would use the radio to gather information. Balclutha residents are more likely to mention they would look for information from their local council's website (63%) on how to prepare for an emergency, while residents in Lawrence would use TV to find information (62%). Interestingly, Lawrence residents are more likely to mention they wouldn't expect to get information during an emergency (12%).

Notably, Clutha residents are more likely to mention they have heard or seen advertising (64%) on how to prepare for an emergency in the past six months, and specifically are more likely to have seen 'long or strong, get gone' (76%). Catlins residents are more likely to mention they have heard or seen advertising on the radio or the TV (86%) and those from Milton have looked at the Emergency Management Otago Facebook page.



“We have extra stored water, food, torches, radio, batteries, candles, clothing accessible, keep the fuel tank at least half full at all times, a generator with fuel and small amount of cash available.”

“We have two emergency small wheelie bins and we are on a civil defence directory for our area.”

Central Otago Summary



Central Otago residents are more likely to be aged over 45+ and to identify their household situation as a couple with no children at home. Central Otago residents are more likely to mention they live in a rural area, with almost half of these residents mentioning they live on a lifestyle block.

HAZARD AND RISK AWARENESS

Central Otago residents are more likely to be aware that a cyclone or severe storm (52%) and fire (51%) could affect them. Interestingly, Central Otago residents are also more likely to mention an impact of the hazard or risk, such as no power or having roads cut off (24%). Residents living in Alexandra/ Clyde/ Earnsclough are more likely to mention a flood (84%) or a fire (61%), residents in Ida Valley are more likely to mention a drought (48%), while those in Upper Clutha/ Lindis are more likely to mention an earthquake (97%) or a tsunami (14%).

In terms of affects on residents' lives personally and the infrastructure they use, Central Otago residents' results remain on a par with total level results. Almost half (51%) of Central Otago residents mention an earthquake is most likely to affect them, while almost all (92%) indicate a tsunami is least likely to affect them; these results are significantly higher than the total result.

When asked about the correct action to take in an earthquake, Central Otago residents are more likely to mention go outside (13%) and get down, get low, get out (1%). Alexandra/ Clyde/ Earnsclough residents are more likely to mention the correct action is to stop, drop/ cover, hold (43%), while those in Manuherikia Valley (32%) and Upper Clutha/ Lindis (25%) are more likely to believe the correct action is to go outside or get out of the house. When asked what to do if you are near the coast when an earthquake hits, 3% of Central Otago residents are not sure, significantly higher than the total results, while 78% mention move to higher ground, significantly lower than the total result. Teviot Valley residents are more likely to mention they are not sure what action to take (15%), while those in Cromwell/ Bannockburn are more likely to mention you should listen for a tsunami warning.

On a par with total level results, 32% of Central Otago residents mention they will definitely experience a severe earthquake during their lifetime. Upper Clutha/ Lindis residents are more likely to agree that they will definitely experience a severe earthquake in their lifetime (57%), while those in Manuherikia Valley are more likely to mention they will not. Nineteen per cent of Central Otago residents have seen the community response plan.

AREA SAMPLE



Age

Under 30: 16%
30-44: 19%
45-64: 37%
65+: 28%



Tenure in area

>1 year: 10%
1-5 years: 34%
5+ years: 56%



Gender

Male: 49%
Female: 51%



Urban/ rural

Urban: 55%
Rural: 45%

“After the Christchurch earthquake it made us more aware that these things can happen here in NZ, not just overseas, and we made a quake kit up. We are probably not as prepared as we were soon after the Christchurch quake though.”



PREPAREDNESS FOR AN EMERGENCY

On a par with total level results, 13% of Central Otago residents indicate they are very prepared for an emergency. A further 19% of these residents mention they are not prepared, significantly lower than the total result. Reasons for preparedness revolve around residents indicating they are already self sufficient (7%), significantly higher than the total result. Residents in Ida Valley (65%) and Manuherikia Valley (31%) are more likely to mention they are already self sufficient, while those in Maniototo Basin are more likely to mention their area is not at risk (9%).

Forty per cent of Central Otago residents who mention they are not prepared indicate this is because they have no emergency kit, but they do have supplies. Upper Clutha/ Lindis residents are more likely to mention they have no plan or emergency kit (66%).

On a par with total level results, 46% of Central Otago residents mention they are likely to take further steps to prepare for an emergency in the next six months, these steps include updating or improving their emergency kit (31%) and organising an emergency kit (28%). Motivations to prepare for Central Otago residents revolve around experiencing an earthquake or emergency (21%). Manuherikia Valley residents are more likely to mention they are very likely to take further steps (22%) in the next six months. Those living in Upper Clutha/ Lindis are more likely to mention that an earthquake or emergency (59%) would motivate them to make preparations.

When asked about specific preparations, Central Otago residents are more likely to indicate they have acquired an alternative means of cooking (81%) and stored non-perishable food (77%), and are less likely to indicate they have made a plan for what to do if away from home (24%), and also to mention they have not prepared anything (10%). Upper Clutha/ Lindis residents are more likely to mention they have made a plan about what to do if they are away from home (51%).

On a par with the total result, 34% of Central Otago residents mention their workplace has made preparations to continue operations after an emergency. Those living in Upper Clutha/ Lindis are more likely to mention their workplace has made preparations.

Upper Clutha/ Lindis residents are more likely to indicate they strongly disagree it is their responsibility to prepare for an emergency (20%) and that they are responsible for themselves and their household for three days (15%).

Central Otago residents are more likely to mention they are very likely to check on neighbours (77%), and share food and emergency supplies with extended family (64%) and neighbours (54%) during or after an emergency. Those living in Maniototo Basin are more likely to mention they would share food and supplies with others during and after an emergency (81%).

On a par with total level results, 30% of Central Otago residents received the test emergency text last November. Cromwell/ Bannockburn are more likely to have received the alert (48%), while those in Alexandra/ Clyde/ Earnscleugh (19%) and Teviot Valley (38%) are more likely to mention they do not have a smartphone.



“If further information comes to hand advising an increased risk e.g., dam wall had a crack and was full, or increased seismic activity.”

“We are fully set up to survive for a month without outside assistance.”



INFORMATION AND COMMUNICATION

Central Otago residents are less likely to mention they would use social media (36%) and friends or family (31%) to gather information on how to be prepared for an emergency. Ida Valley residents mention they would look in the phone book for information (48%), while those in Alexandra/ Clyde/ Earnsclough would use brochures or flyers in their letterbox (34%).

During an emergency, Central Otago residents are also less likely to mention they would use Facebook (31%) or Twitter (3%) to gather information.

In the past six months, Central Otago residents are less likely to have visited the Ministry of Civil Defence website (5%). Notably, Manuherikia Valley residents are more likely to mention they have looked at the Emergency Management Otago Facebook page (32%).

Notably, Central Otago residents are more likely to have seen the 'drop, cover, hold' advertisement (86%) and less likely to mention they have not seen either of these (9%).



“To be honest; in my busy daily life I haven’t taken the time to think about that carefully.”

Discussion of Findings

Discussion of Findings

The majority of Otago residents are aware they are at risk from at least one natural hazard or risk, with earthquake and flood the most mentioned risks here. Earthquakes are also the hazard or risk residents mention will have the biggest affect on their lives, both on them personally and on the infrastructure they use. Tsunami is the hazard residents feel will have the least affect on them personally, while tsunami and vegetation fire are the hazards and risks residents feel will have the least impact on the infrastructure they use. Interestingly, rural residents are more likely to mention a vegetation fire would affect them personally.

Notably, Clutha residents appear less concerned about earthquakes and more concerned with flooding and not surprisingly, a tsunami is more of a concern for residents closer to the coast in Waitaki and Dunedin.

Almost half of residents mention the correct action to take during an earthquake is to get under or next to something and cover your head. Notably, those in rural areas are more likely to mention that the correct action is to go outside or get out of the house. The majority of residents also mention if near the coast you should move to higher ground after an earthquake, with those who live on a farm more likely to mention this; residents born outside of New Zealand and those from Central Otago are more likely to mention they are not sure.

Over three quarters of residents agree there will be a severe earthquake in their lifetime. Residents aged under 44 are more likely to be certain there will be a severe earthquake in their lifetime, while those aged 65+ are more likely to mention it might happen, it will not happen, or that they are not sure. Residents born outside of New Zealand are also more likely to mention they do not think they will experience a severe earthquake; Queenstown-Lakes residents are more likely to be certain they will experience a severe earthquake, while those in Waitaki are more likely to indicate they will not.

One third of residents in Dunedin, Clutha, and Waitaki are aware of the tsunami evacuation zone map, with a further 78% of these residents indicating they have checked the map. Just under one quarter of residents in Queenstown-Lakes and Central Otago have seen the community response plan.

Around three quarters of residents are at least somewhat prepared for an emergency. Notably, residents aged under 44 are more likely to mention they are not prepared, while those aged 45+ are more likely to mention they are very prepared. This is interesting to note when compared to earlier results highlighting younger residents are more likely to mention they think they will experience a severe earthquake in their lifetime. Urban residents also mention they are not prepared, while rural residents indicate they are. Having water is the primary reason residents mention they are prepared for an emergency. Those in rural areas are more likely to have a range of emergency supplies and also mention they are self sufficient. Unprepared residents mention they have emergency supplies, but not in a kit or that they have no emergency plan or kit. Interestingly, residents born outside of New Zealand are more likely to mention they have no plan or kit but have emergency supplies, and that they need information on how to be prepared for an emergency.

Just under half of residents mention they are likely to make further preparations for an emergency in the next six months, with residents aged 30-44 more likely to mention they are likely to make further preparations and those aged 65+ more likely to mention they are not likely. Residents in small rural communities are also likely to mention they will make preparations in the next six months, while those living on a farm and in Waitaki are not likely. Updating, improving, or organising an emergency kit are the primary mentions for changes residents intend to make. Motivators to prepare revolve around an earthquake or emergency occurring, as well as a warning or an extreme weather forecast.

Over half of residents have acquired an alternative means of cooking, stored non-perishable food and other essential items, and stored water in preparation for an emergency. Notably, residents aged under 30, those in urban areas, and those who have lived in the region for less than a year are more likely to not have any of the preparations listed.

The majority of residents agree it is their responsibility to ensure both their household is prepared for an emergency and to look after their household for at least three days after an emergency. Younger residents are more likely to disagree that it is their responsibility to look after their household for three days after an emergency, while residents aged 30-44 and 65+ are more likely to agree with both of these statements. Queenstown-Lakes residents are more likely to strongly agree with both of these statements, and Central Otago residents are more likely to disagree that it is their responsibility to be prepared for an emergency.

The majority of residents would also check on family members, neighbours, and others in their community during or after an emergency. Residents in Waitaki are not likely to check on neighbours, while those in Queenstown-Lakes and Central Otago are very likely.

One third of residents received the emergency alert test last November. Those in urban areas, aged under 44, those who have lived in the area for 1-5 years, and Queenstown-Lakes residents are more likely to mention they did receive the alert. While residents in Waitaki and Clutha are more likely to mention they don't have a smartphone.

Just under half of residents know the location of civil defence centres in their community. Residents aged under 30, those who have lived in the region for less than 5 years, those born outside of New Zealand, and those who live in urban areas are more likely to not know the location of the centres. Waitaki and Clutha residents are more likely to know the location of the centres in their community.

The Ministry of Civil Defence website is the source more than half of residents mention they would use to gather information on how to be prepared for an emergency. Younger residents are more likely to mention they would use social media and friends or family, while older residents are more likely to mention they would listen to the radio, news, TV, brochures, and at the library or community centre.

During an emergency most residents would listen to the radio to get information. Younger residents mention they would rely on text messages, word of mouth, Facebook, and Twitter to get information during an emergency, while older residents would rely on more traditional sources such as radio and TV.

Over half of residents have heard or seen advertising on radio or TV about being prepared for emergencies in the past six months. Interestingly, residents aged 65+ have not seen any of the sources mentioned. Waitaki and Clutha residents are also more likely to have heard or seen advertising on how to prepare for an emergency in the past six months.

Most residents have seen the advertising around what to do in an earthquake, although younger and male residents are more likely to mention they have not. Just under a quarter of residents have seen the specific advertising from Civil Defence either online, on TV, or in print.

Points to Consider

Motivations to Prepare

Motivations for residents to prepare for an emergency revolve around there being an earthquake or emergency, or a warning of an emergency, this appears to be relevant across all areas within the region and for all age groups. It is interesting that the majority of residents agree that they will probably experience a severe earthquake in their lifetime, although this doesn't appear to have encouraged residents to prepare for such an event. It also appears that residents are aware of the impact that a serious natural disaster or hazard could have on them personally and on the infrastructure they use. Consideration should be given by Emergency Management Otago as to how best they can encourage residents to prepare for an emergency, as it appears simply being aware of the natural hazards and risks, and the impact that could have on their lives, is not a sufficient motivation to prepare.

Residents Most at Risk

It does not appear that there is one set group within Otago who are the least ready for an emergency. Younger residents do appear to be the least prepared, however they are aware they are unprepared for an emergency. These residents also appear more aware of the natural hazards and risks which could affect them. Older residents appear to feel they are more prepared for an emergency, however they do appear less aware of the hazards and risks which could impact them. Notably, rural residents appear to be more prepared for an emergency, with many noting they are self sufficient. Although, it is important to note here that many rural residents mentioned they don't have access to a smartphone, so would be unable to receive emergency alerts and updates this way. Encouragingly, most residents would check on, and share food and supplies, with others in the event of an emergency.

Current Information and Communication

Although there are high levels of awareness of the earthquake advertisements, awareness of the 'never happens, happens' campaign is low, with only a quarter of residents mentioning they have seen these advertisements. Consideration needs to be given here around how best to reach Otago residents, and how different audiences within Otago need to prepare. As mentioned above, the main motivation for preparation for an emergency is in fact an emergency, and as such Emergency Management Otago should consider how best to communicate with, and encourage residents to become motivated to prepare.

Appendix

Appendix 1: Area Results

Table 4: Awareness of Natural Hazards and risks by Area

	Central Otago	Clutha	Dunedin	Waitaki	Queenstown-Lakes
Earthquake	83%	72%	85%	81%	91%
Flood	68%	81%	73%	72%	68%
Cyclone/ severe weather	52%	41%	43%	43%	42%
Fire	51%	30%	35%	33%	52%
Tsunami	4%	22%	49%	60%	14%
Landslide	21%	12%	35%	16%	38%
Impact of hazard or risk	24%	18%	18%	14%	16%
Drought	3%	4%	2%	2%	4%
Pandemic/ epidemic	2%	2%	4%	4%	4%
Volcano	1%	0%	3%	2%	1%
Avalanche	1%	0%	0%	0%	5%
Global warming / climate change	0%	0%	1%	1%	1%
Something else	1%	1%	1%	1%	1%
None	1%	1%	1%	3%	3%

Table 5: Effects of Natural Hazard or Risk - Central Otago

	Earthquake	Flood	Tsunami	Landslide	Storm	Vegetation Fire
Damage your home	95%	58%	14%	35%	86%	63%
Cause you to evacuate	87%	59%	15%	35%	53%	64%
Trap you at home or prevent you reaching home	92%	77%	20%	59%	76%	63%
Prevent you getting to the shops	88%	73%	16%	45%	71%	50%
Close schools	74%	67%	19%	42%	70%	52%
Close your workplace or stop you getting to work	70%	61%	17%	44%	60%	47%
Cut electricity	91%	70%	21%	65%	90%	74%
Block roads / disrupt your travel	94%	83%	23%	78%	85%	73%
Cut your water supply	88%	66%	18%	53%	63%	38%
Disrupt phone and internet services	92%	69%	26%	60%	89%	65%
Damage your sewerage system	91%	64%	14%	36%	45%	23%

Table 6: Effects of Natural Hazard or Risk - Clutha

	Earthquake	Flood	Tsunami	Landslide	Storm	Vegetation Fire
Damage your home	95%	54%	29%	41%	84%	48%
Cause you to evacuate	82%	52%	35%	39%	55%	51%
Trap you at home or prevent you reaching home	87%	89%	44%	58%	78%	52%
Prevent you getting to the shops	84%	89%	40%	52%	72%	39%
Close schools	81%	79%	42%	47%	74%	46%
Close your workplace or stop you getting to work	75%	75%	37%	47%	62%	40%
Cut electricity	89%	69%	47%	58%	93%	64%
Block roads / disrupt your travel	92%	95%	50%	73%	88%	60%
Cut your water supply	88%	67%	34%	50%	60%	33%
Disrupt phone and internet services	91%	68%	45%	57%	92%	56%
Damage your sewerage system	90%	64%	31%	42%	48%	18%

Table 7: Effects of Natural Hazard or Risk - Dunedin

	Earthquake	Flood	Tsunami	Landslide	Storm	Vegetation Fire
Damage your home	97%	65%	50%	67%	84%	67%
Cause you to evacuate	89%	61%	57%	63%	64%	65%
Trap you at home or prevent you reaching home	91%	79%	68%	71%	72%	58%
Prevent you getting to the shops	87%	81%	67%	64%	75%	52%
Close schools	83%	78%	70%	63%	77%	59%
Close your workplace or stop you getting to work	83%	76%	71%	62%	70%	52%
Cut electricity	95%	72%	71%	74%	92%	67%
Block roads / disrupt your travel	93%	92%	76%	86%	83%	73%
Cut your water supply	93%	70%	62%	72%	65%	37%
Disrupt phone and internet services	95%	72%	70%	74%	91%	63%
Damage your sewerage system	95%	73%	61%	69%	66%	25%

Table 8: Effects of Natural Hazard or Risk - Waitaki

	Earthquake	Flood	Tsunami	Landslide	Storm	Vegetation Fire
Damage your home	96%	65%	54%	51%	83%	57%
Cause you to evacuate	84%	59%	57%	50%	56%	55%
Trap you at home or prevent you reaching home	89%	82%	67%	58%	70%	52%
Prevent you getting to the shops	86%	84%	74%	59%	73%	50%
Close schools	70%	68%	58%	49%	64%	48%
Close your workplace or stop you getting to work	70%	68%	58%	51%	61%	46%
Cut electricity	91%	70%	69%	66%	89%	68%
Block roads / disrupt your travel	92%	90%	75%	76%	84%	65%
Cut your water supply	89%	71%	60%	60%	68%	34%
Disrupt phone and internet services	91%	71%	69%	62%	88%	59%
Damage your sewerage system	89%	72%	58%	52%	56%	25%

Table 9: Effects of Natural Hazard or Risk - Queenstown-Lakes

	Earthquake	Flood	Tsunami	Landslide	Storm	Vegetation Fire
Damage your home	98%	61%	35%	58%	84%	73%
Cause you to evacuate	92%	56%	36%	53%	56%	75%
Trap you at home or prevent you reaching home	95%	74%	40%	73%	77%	71%
Prevent you getting to the shops	92%	81%	41%	69%	78%	62%
Close schools	82%	67%	38%	55%	71%	60%
Close your workplace or stop you getting to work	81%	64%	37%	63%	66%	60%
Cut electricity	96%	72%	43%	77%	90%	73%
Block roads / disrupt your travel	98%	88%	47%	89%	87%	80%
Cut your water supply	97%	64%	35%	73%	63%	46%
Disrupt phone and internet services	97%	74%	47%	73%	89%	72%
Damage your sewerage system	97%	69%	37%	66%	60%	35%

Table 10: Likelihood of Personally Affecting - Central Otago

	1 - Most likely to affect	2	3	4	5	6 - Least likely to affect
Earthquake	51%	17%	13%	14%	6%	0%
Flood	12%	21%	18%	27%	21%	1%
Tsunami	1%	1%	0%	2%	3%	92%
Landslide	1%	7%	14%	22%	51%	4%
Storm	19%	35%	27%	15%	3%	1%
Fire	15%	20%	27%	20%	17%	1%

Table 11: Likelihood of Personally Affecting - Clutha

	1 - Most likely to affect	2	3	4	5	6 - Least likely to affect
Earthquake	31%	22%	23%	12%	12%	1%
Flood	29%	22%	17%	16%	13%	3%
Tsunami	3%	4%	5%	5%	17%	67%
Landslide	2%	6%	14%	23%	37%	17%
Storm	23%	30%	23%	16%	5%	3%
Fire	12%	17%	18%	28%	16%	9%

Table 12: Likelihood of Personally Affecting - Dunedin

	1 - Most likely to affect	2	3	4	5	6 - Least likely to affect
Earthquake	38%	25%	15%	12%	7%	2%
Flood	16%	18%	16%	15%	25%	10%
Tsunami	4%	9%	7%	8%	19%	53%
Landslide	8%	14%	16%	21%	22%	19%
Storm	23%	20%	21%	23%	9%	4%
Fire	10%	14%	24%	21%	18%	13%

Table 13: Likelihood of Personally Affecting - Waitaki

	1 - Most likely to affect	2	3	4	5	6 - Least likely to affect
Earthquake	37%	21%	21%	13%	7%	1%
Flood	21%	18%	18%	21%	19%	4%
Tsunami	7%	12%	9%	10%	16%	46%
Landslide	4%	6%	11%	19%	27%	33%
Storm	17%	27%	24%	17%	12%	4%
Fire	15%	16%	18%	19%	20%	12%

Table 14: Likelihood of Personally Affecting - Queenstown-Lakes

	1 - Most likely to affect	2	3	4	5	6 - Least likely to affect
Earthquake	65%	19%	8%	4%	3%	0%
Flood	3%	12%	19%	33%	31%	2%
Tsunami	1%	4%	2%	3%	7%	82%
Landslide	2%	15%	20%	24%	31%	9%
Storm	19%	27%	25%	16%	11%	2%
Fire	9%	22%	26%	20%	17%	4%

Table 15: Correct Action During an Earthquake by Area

	Central Otago	Clutha	Dunedin	Waitaki	Queenstown-Lakes
Get under or next to something and cover head	47%	48%	52%	48%	44%
Stop, drop/ cover, hold (or variation of)	36%	37%	36%	35%	43%
Move to open area outside	12%	14%	8%	7%	11%
Go outside/ get out of the house	13%	7%	5%	14%	8%
Take cover	7%	9%	8%	8%	7%
Move away from anything that could fall	4%	2%	4%	2%	4%
Move or stay inside	2%	1%	1%	2%	3%
Move to safe place or assembly point	1%	3%	2%	1%	2%
Long and strong get gone	1%	1%	1%	2%	2%
Stay calm/ be prepared to evacuate	1%	2%	1%	2%	0%
Stay where you are/ sit down	0%	0%	1%	2%	0%
Go to higher ground	1%	0%	1%	1%	0%
Assist others	1%	0%	0%	0%	1%
Depends where you are/severity	0%	1%	0%	0%	1%
Get down, get low, get out	1%	0%	0%	0%	0%
Something else	4%	2%	2%	3%	2%
Not sure	0%	0%	1%	0%	0%

Table 16: Correct Action if Near the Coast During an Earthquake by Area

	Central Otago	Clutha	Dunedin	Waitaki	Queenstown-Lakes
Move to higher ground	78%	85%	82%	80%	86%
Move inland	24%	20%	18%	21%	16%
Get gone	2%	3%	5%	3%	2%
Long, strong, get gone	1%	1%	1%	2%	1%
Evacuate	1%	1%	1%	2%	1%
Listen for tsunami warning/ radio	1%	0%	2%	1%	0%
Assist others	0%	1%	0%	1%	0%
Outside and away from buildings	0%	0%	1%	0%	0%
Something else	5%	5%	4%	4%	4%
Not sure	3%	1%	1%	1%	2%

Table 17: Risk of Severe Earthquake by Area

	Central Otago	Clutha	Dunedin	Waitaki	Queenstown-Lakes
Yes – definitely	32%	27%	33%	39%	43%
Yes – maybe	57%	54%	54%	45%	54%
No	5%	8%	6%	9%	1%
Not sure	5%	11%	7%	7%	2%

Table 18: Awareness of Tsunami Evacuation Zone Map by Area

	Central Otago	Clutha	Dunedin	Waitaki	Queenstown-Lakes
Aware of tsunami evacuation zone maps	-	34%	34%	28%	-
Not aware of tsunami evacuation zone maps	-	57%	56%	59%	-
Not sure	-	9%	10%	13%	-

Table 19: Checked Evacuation Zone Map by Area

	Central Otago	Clutha	Dunedin	Waitaki	Queenstown-Lakes
Checked evacuation map	-	80%	76%	80%	-
Not checked evacuation map	-	17%	21%	17%	-
Not sure	-	3%	3%	3%	-

Table 20: Evacuation Zones by Area

	Central Otago	Clutha	Dunedin	Waitaki	Queenstown-Lakes
Red zone - correct	-	72%	77%	71%	-
Orange zone - correct	-	58%	50%	56%	-
Yellow zone - correct	-	46%	49%	59%	-

Table 21: Community Response Plan by Area

	Central Otago	Clutha	Dunedin	Waitaki	Queenstown-Lakes
Have seen community response plan	19%	-	-	-	26%
Have not seen community response plan	70%	-	-	-	66%
Not sure	11%	-	--	-	8%

Table 22: Sufficiently Prepared for an Emergency by Area

	Central Otago	Clutha	Dunedin	Waitaki	Queenstown-Lakes
Yes – very prepared	13%	11%	7%	14%	11%
Yes – somewhat prepared	65%	63%	55%	57%	68%
No – not prepared	19%	24%	35%	25%	18%
Not sure	3%	2%	2%	3%	2%

Table 23: Reasons for Being Sufficiently Prepared by Area

	Central Otago	Clutha	Dunedin	Waitaki	Queenstown-Lakes
Have water	34%	40%	32%	33%	36%
Have an emergency kit, grab bag, plan	25%	24%	29%	31%	28%
Have tinned or dried food	28%	32%	24%	28%	25%
No emergency kit prepared, but do have supplies	22%	19%	23%	19%	19%
Have fuel, heat, and power source	19%	21%	12%	19%	15%
Have cooking method	17%	18%	13%	17%	14%
Have torch, candles, matches, radio, or batteries	14%	14%	16%	15%	13%
Have pet supplies	7%	7%	6%	6%	10%
First aid kit	6%	10%	5%	8%	6%
Blankets, clothes, documents, or meds together	4%	7%	6%	8%	8%
Fully prepared	6%	5%	5%	10%	4%
Alternative shelter	5%	5%	5%	5%	4%
Already self sufficient	7%	5%	1%	2%	4%
Have emergency kit, but need to update	2%	4%	2%	4%	6%
Have camping gear	4%	1%	3%	4%	4%
No plan or emergency kit	3%	2%	4%	2%	2%
Need to add to or update existing supplies	1%	1%	3%	0%	2%
Have a survival kit or locator beacon	1%	1%	2%	1%	3%
Have emergency gear, but not all together	1%	1%	2%	1%	1%
I need information about being prepared	0%	1%	1%	1%	0%
Depends on the emergency	0%	0%	0%	1%	0%
Not a risk in my area	0%	0%	0%	1%	0%
Something else	2%	3%	7%	2%	5%
Don't know	0%	0%	1%	0%	0%

Table 24: Reasons for Not Being Sufficiently Prepared by Area

	Central Otago	Clutha	Dunedin	Waitaki	Queenstown-Lakes
No emergency kit prepared, but do have supplies	40%	27%	29%	33%	38%
No plan or emergency kit	20%	14%	31%	29%	32%
Laziness/complacency	17%	16%	19%	20%	8%
Lack of finances	2%	4%	5%	4%	4%
No emergency supplies	0%	7%	3%	1%	8%
Thought about it	5%	7%	2%	2%	2%
Have emergency kit, but needs updating	3%	5%	2%	2%	3%
Have water	10%	2%	1%	1%	0%
Not a risk in my area	2%	5%	1%	3%	3%
Have tinned or dried food	7%	2%	1%	2%	0%
Have fuel, heat, and power source	6%	0%	2%	0%	0%
Have cooking method	4%	2%	1%	0%	1%
Depends on the emergency	6%	1%	1%	1%	0%
Have torch, candles, matches, radio, or batteries	6%	0%	1%	2%	0%
I need information about being prepared	2%	0%	2%	0%	3%
Have an emergency kit, grab bag, plan	0%	0%	2%	1%	1%
Need to add to or update existing supplies	2%	0%	0%	1%	1%
Blankets, clothes, documents, or meds together	2%	1%	0%	1%	0%
Already self sufficient	3%	0%	0%	1%	0%
Alternative shelter	2%	0%	0%	0%	0%
Need to make a plan	1%	0%	0%	0%	1%
Live day to day	0%	2%	0%	0%	0%
Have emergency gear, but not all together	1%	0%	0%	0%	0%
Cash on hand	0%	0%	0%	1%	0%
Something else	3%	5%	10%	11%	6%
Don't know	0%	10%	3%	0%	3%

Table 25: Likelihood to Further Prepare for an Emergency by Area

	Central Otago	Clutha	Dunedin	Waitaki	Queenstown-Lakes
Very likely	8%	9%	10%	12%	12%
Likely	38%	32%	36%	33%	37%
Neither likely nor unlikely	32%	32%	31%	29%	29%
Not likely	18%	22%	18%	18%	19%
Not at all likely	4%	5%	5%	8%	3%

Table 26: Steps Intending to Take to Prepare for an Emergency by Area

	Central Otago	Clutha	Dunedin	Waitaki	Queenstown-Lakes
Update or improve emergency kit and grab bag	31%	24%	24%	33%	33%
Organise emergency kit	28%	28%	27%	25%	25%
Build or update emergency plans with household	22%	18%	23%	20%	20%
Buy or check water supplies	17%	17%	16%	21%	23%
Buy canned food/ non perishable grocery items	12%	12%	10%	12%	19%
Buy or check batteries	7%	6%	5%	7%	7%
Buy or check power, heating, or cooking sources	8%	6%	5%	4%	6%
Organise or update supplies (general)	4%	5%	6%	6%	1%
Check or organise stores of fuel, gas, or firewood	6%	4%	3%	4%	6%
Buy or check torch, candles, or matches	4%	5%	4%	3%	5%
Update or buy first aid kit	3%	2%	4%	5%	4%
Put all emergency supplies in one easily accessible place	4%	3%	2%	4%	1%
Buy radio	2%	2%	3%	2%	4%
Keep informed	2%	2%	4%	2%	1%
Alternative storage facility away from house	3%	1%	1%	0%	2%
Consider pet requirements	0%	2%	1%	0%	1%
Buy or check alternative shelter	0%	0%	2%	0%	0%
Have spare cash on hand	0%	0%	0%	1%	0%
Learn Basic First Aid	0%	0%	0%	0%	1%
Something else	3%	4%	3%	1%	5%
Nothing/ not sure	0%	1%	5%	2%	1%

Table 27: Motivations to Prepare for an Emergency by Area

	Central Otago	Clutha	Dunedin	Waitaki	Queenstown-Lakes
An earthquake or emergency	21%	20%	12%	19%	22%
Warnings or extreme weather forecast	14%	13%	15%	14%	14%
An emergency or disaster near home	8%	9%	12%	12%	9%
Information on how to prepare for an emergency	8%	11%	10%	8%	15%
Already prepared	13%	8%	4%	11%	10%
Financial assistance to update or get emergency kits	4%	3%	12%	4%	5%
Regular reminders to be prepared	5%	4%	5%	5%	4%
Cost effective emergency packs	4%	3%	6%	4%	2%
Having a list of essentials for preparedness	3%	3%	5%	1%	5%
Personal experiences	3%	2%	3%	1%	1%
Area not at risk	2%	2%	0%	1%	1%
Having a reason to prepare	1%	1%	1%	2%	0%
Time	1%	0%	1%	0%	0%
Civil defence advice or practice drills	0%	1%	0%	1%	1%
Something else	6%	7%	5%	5%	8%
Not sure	7%	7%	9%	8%	6%
Nothing	7%	10%	8%	10%	4%

Table 28: Current Preparations by Area

	Central Otago	Clutha	Dunedin	Waitaki	Queenstown-Lakes
Acquired an alternative means of cooking	81%	73%	55%	64%	75%
Stored non-perishable food and other essential items	77%	68%	61%	70%	71%
Stored water	60%	56%	52%	59%	58%
Made a plan (either for yourself or your family / household) about what to do if you are at home	38%	43%	38%	46%	43%
Put together a grab bag of essential items if you have to evacuate	27%	26%	29%	34%	30%
Made a plan (either for yourself or your family / household) about what to do if you are away from home	24%	28%	28%	32%	34%
Something else (please specify)	14%	7%	7%	9%	11%
None of these	10%	13%	19%	13%	14%

Table 29: Workplace Preparations by Area

	Central Otago	Clutha	Dunedin	Waitaki	Queenstown-Lakes
Yes - workplace made preparations	34%	37%	36%	36%	36%
No - workplace hasn't made preparations	26%	22%	21%	24%	27%
Not sure	38%	37%	40%	34%	35%
Not currently working	3%	4%	2%	6%	1%

Table 30: Responsibility to make sure household are prepared for an emergency by Area

	Central Otago	Clutha	Dunedin	Waitaki	Queenstown-Lakes
Strongly disagree	5%	8%	7%	5%	6%
Disagree	2%	0%	1%	0%	1%
Neither agree nor disagree	3%	4%	5%	2%	3%
Agree	37%	34%	33%	33%	26%
Strongly Agree	52%	54%	54%	59%	64%
Not sure	1%	0%	0%	1%	0%

Table 31: Responsibility to look after household for at least three days in an emergency by Area

	Central Otago	Clutha	Dunedin	Waitaki	Queenstown-Lakes
Strongly disagree	4%	7%	6%	3%	6%
Disagree	2%	0%	1%	0%	1%
Neither agree nor disagree	3%	6%	6%	3%	5%
Agree	37%	33%	36%	38%	24%
Strongly Agree	52%	53%	51%	55%	63%
Not sure	1%	0%	0%	1%	1%

Table 32: Checking on, and Sharing Food With, Others - Central Otago

	Very likely	Likely	Neither nor	Not likely	Not at all likely	Don't know	Not relevant to me
Check on family members	86%	9%	0%	0%	0%	0%	5%
Check on neighbours	77%	21%	1%	0%	0%	0%	1%
Check on others in your community including friends	66%	30%	2%	1%	0%	1%	1%
Share food and supplies with extended family	64%	19%	4%	2%	1%	1%	10%
Share food and supplies with neighbours	54%	36%	4%	2%	0%	3%	1%
Share food and supplies with others	48%	41%	4%	2%	0%	2%	1%
Volunteer to help at the civil defence centre	30%	37%	14%	8%	2%	5%	4%

Table 33: Checking on, and Sharing Food With, Others - Clutha

	Very likely	Likely	Neither nor	Not likely	Not at all likely	Don't know	Not relevant to me
Check on family members	84%	12%	1%	0%	0%	0%	3%
Check on neighbours	69%	27%	2%	0%	0%	1%	0%
Check on others in your community including friends	70%	27%	2%	0%	0%	0%	0%
Share food and supplies with extended family	59%	28%	2%	2%	0%	1%	9%
Share food and supplies with neighbours	52%	37%	6%	2%	0%	2%	1%
Share food and supplies with others	48%	37%	9%	2%	0%	3%	0%
Volunteer to help at the civil defence centre	35%	29%	17%	10%	1%	6%	2%

Table 34: Checking on, and Sharing Food With, Others - Dunedin

	Very likely	Likely	Neither nor	Not likely	Not at all likely	Don't know	Not relevant to me
Check on family members	85%	11%	0%	0%	1%	1%	2%
Check on neighbours	64%	30%	4%	1%	0%	1%	0%
Check on others in your community including friends	60%	34%	3%	2%	0%	1%	0%
Share food and supplies with extended family	57%	27%	5%	2%	2%	1%	6%
Share food and supplies with neighbours	43%	41%	10%	3%	1%	2%	0%
Share food and supplies with others	43%	41%	11%	2%	1%	2%	0%
Volunteer to help at the civil defence centre	24%	33%	21%	10%	3%	6%	3%

Table 35: Checking on, and Sharing Food With, Others - Waitaki

	Very likely	Likely	Neither nor	Not likely	Not at all likely	Don't know	Not relevant to me
Check on family members	83%	11%	0%	0%	0%	1%	4%
Check on neighbours	72%	23%	1%	1%	1%	1%	1%
Check on others in your community including friends	68%	26%	4%	1%	0%	1%	1%
Share food and supplies with extended family	60%	25%	2%	2%	2%	2%	8%
Share food and supplies with neighbours	45%	40%	8%	2%	1%	3%	0%
Share food and supplies with others	42%	41%	10%	2%	1%	4%	0%
Volunteer to help at the civil defence centre	26%	29%	19%	11%	4%	8%	4%

Table 36: Checking on, and Sharing Food With, Others - Queenstown-Lakes

	Very likely	Likely	Neither nor	Not likely	Not at all likely	Don't know	Not relevant to me
Check on family members	80%	10%	0%	1%	0%	0%	9%
Check on neighbours	72%	25%	3%	1%	0%	0%	0%
Check on others in your community including friends	73%	25%	2%	0%	0%	0%	0%
Share food and supplies with extended family	53%	20%	6%	4%	1%	0%	17%
Share food and supplies with neighbours	53%	35%	5%	3%	0%	3%	0%
Share food and supplies with others	53%	36%	6%	3%	0%	2%	0%
Volunteer to help at the civil defence centre	33%	31%	19%	8%	0%	7%	1%

Table 37: Test Emergency Mobile Alert by Area

	Central Otago	Clutha	Dunedin	Waitaki	Queenstown-Lakes
I received the alert on my mobile phone	30%	29%	35%	25%	41%
Someone else in my household received the alert on their mobile phone	12%	16%	19%	12%	16%
I don't have a smart-phone	14%	19%	10%	17%	5%
None of these	46%	39%	42%	48%	41%

Table 38: Location of Civil Defence Centres by Area

	Central Otago	Clutha	Dunedin	Waitaki	Queenstown-Lakes
Know the location	39%	52%	34%	47%	39%
Do not know the location	46%	37%	55%	40%	48%
Not sure	15%	12%	12%	14%	13%

Table 39: Included Provision for Pets by Area

	Central Otago	Clutha	Dunedin	Waitaki	Queenstown-Lakes
Yes	58%	56%	47%	62%	57%
No	42%	44%	53%	38%	43%

Table 40: Included Provision for Livestock by Area

	Central Otago	Clutha	Dunedin	Waitaki	Queenstown-Lakes
Yes	50%	55%	66%	63%	54%
No	50%	45%	34%	37%	46%

Table 41: Information Sources for How to Prepare by Area

	Central Otago	Clutha	Dunedin	Waitaki	Queenstown-Lakes
Ministry of Civil Defence website	58%	59%	65%	50%	62%
My local council's website	51%	54%	51%	47%	47%
Radio	53%	52%	49%	55%	42%
News	43%	48%	50%	50%	41%
Emergency Management Otago website	40%	49%	52%	36%	37%
Social media	36%	46%	48%	46%	43%
TV	42%	42%	39%	46%	36%
Friends or family	31%	38%	45%	37%	32%
Brochures/ flyers in letterbox	28%	29%	29%	31%	23%
Library or community centre	19%	24%	16%	12%	14%
School	7%	9%	9%	7%	8%
Google/ internet	1%	1%	3%	3%	6%
Phone book	2%	1%	2%	1%	1%
Somewhere else	3%	2%	3%	3%	4%
Not sure	3%	1%	2%	2%	3%

Table 41: Information Sources During an Emergency by Area

	Central Otago	Clutha	Dunedin	Waitaki	Queenstown-Lakes
Radio	88%	81%	85%	84%	84%
Civil defence centre	64%	66%	61%	58%	61%
Text alerts	51%	54%	58%	45%	60%
Word of mouth	47%	43%	49%	43%	49%
TV	46%	50%	47%	50%	39%
Facebook	31%	44%	49%	36%	38%
Website (please specify)	9%	8%	12%	7%	15%
Twitter	3%	5%	10%	2%	6%
Somewhere else	6%	2%	2%	1%	5%
None – I wouldn't expect to get information	1%	2%	2%	1%	1%

Table 43: Specific Information Seen or Used by Area

	Central Otago	Clutha	Dunedin	Waitaki	Queenstown-Lakes
Heard or seen advertising on radio or tv about being prepared for emergencies	58%	64%	56%	64%	51%
Visited the Ministry of Civil Defence website www.getthru.govt.nz	5%	8%	13%	7%	13%
Looked at the Emergency Management Otago Facebook page	8%	12%	14%	6%	6%
Visited the Emergency Management Otago website www.otagocdem.govt.nz	6%	8%	11%	7%	4%
Looked at the Dunedin Civil Defence Facebook page	-	-	19%	-	-
None of these	37%	29%	35%	31%	43%

Table 44: Earthquake Advertising Awareness by Area

	Central Otago	Clutha	Dunedin	Waitaki	Queenstown-Lakes
Have seen 'long or strong, get gone'	70%	76%	66%	70%	60%
Have seen 'drop, cover, hold'	86%	81%	78%	78%	79%
Neither of these	9%	11%	16%	12%	16%

Table 45: Advertising Awareness by area

	Central Otago	Clutha	Dunedin	Waitaki	Queenstown-Lakes
Yes - online	5%	9%	13%	8%	7%
Yes - on TV	16%	15%	12%	15%	8%
Yes - in print	11%	12%	10%	10%	7%
No - I have not seen these	64%	60%	64%	62%	70%
Not sure	14%	13%	11%	14%	14%

Appendix 2: Sample Profile

Below is the unweighted sample achieved across the project.

Chart 30: Total Area Sample

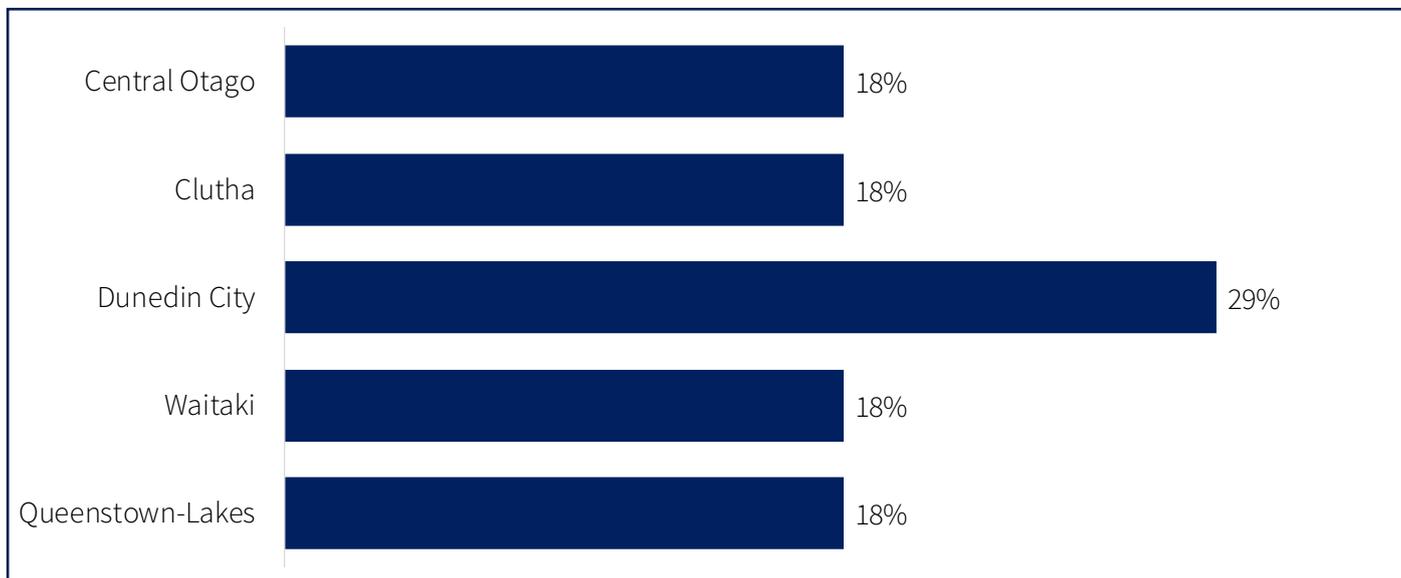


Chart 31: Central Otago Area Breakdown

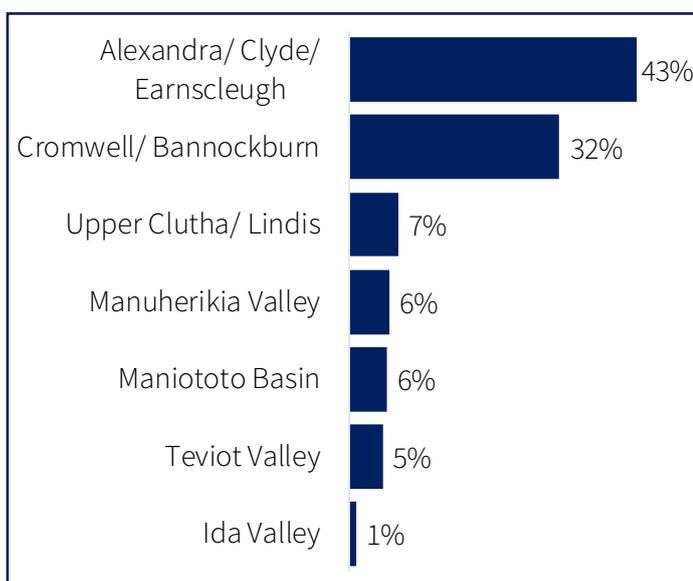


Chart 32: Clutha Area Breakdown

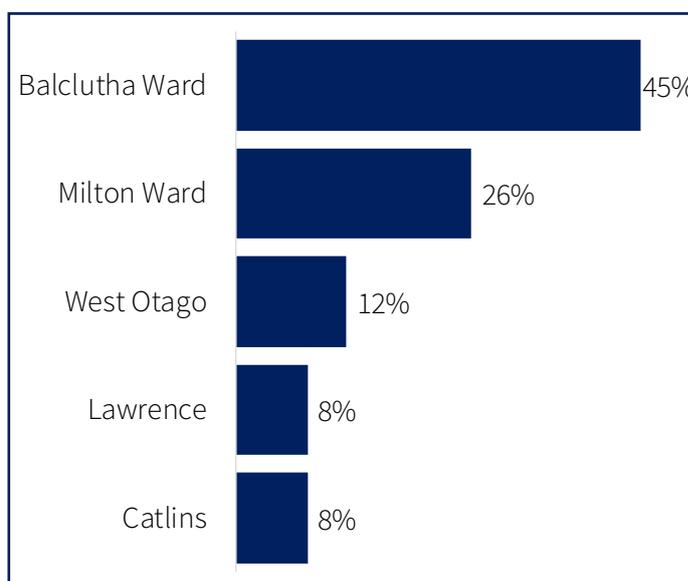


Chart 33: Dunedin Area Breakdown

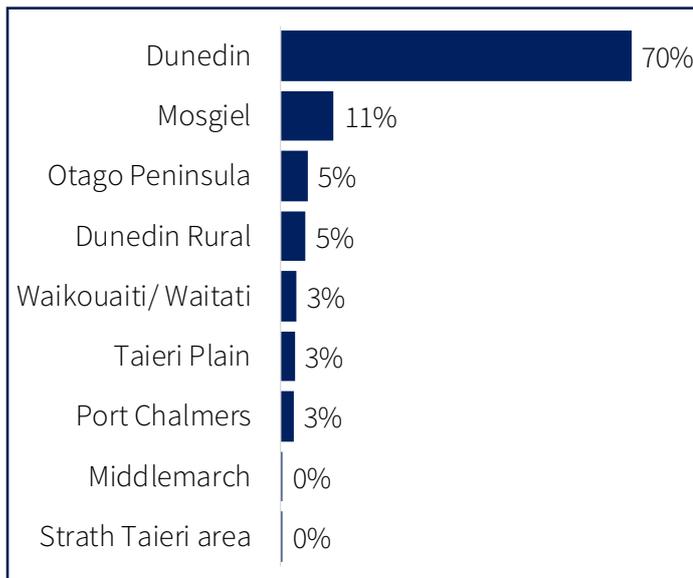


Chart 34: Waitaki Area Breakdown

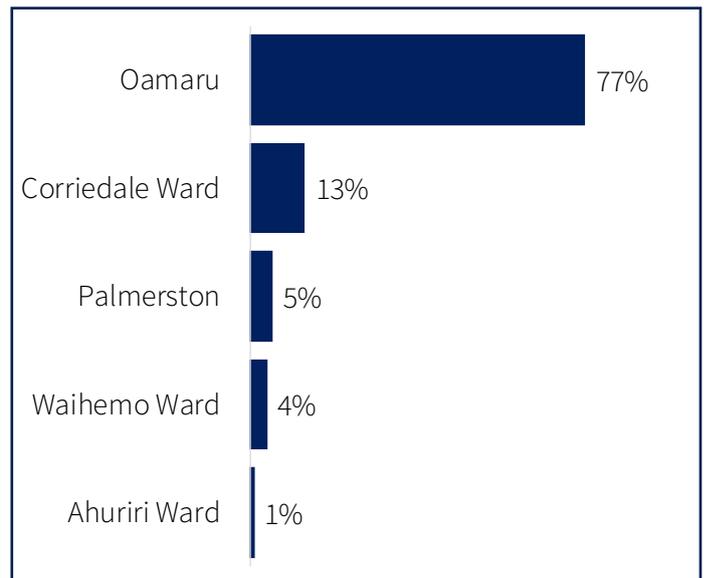


Chart 35: Queenstown-Lakes Area Breakdown

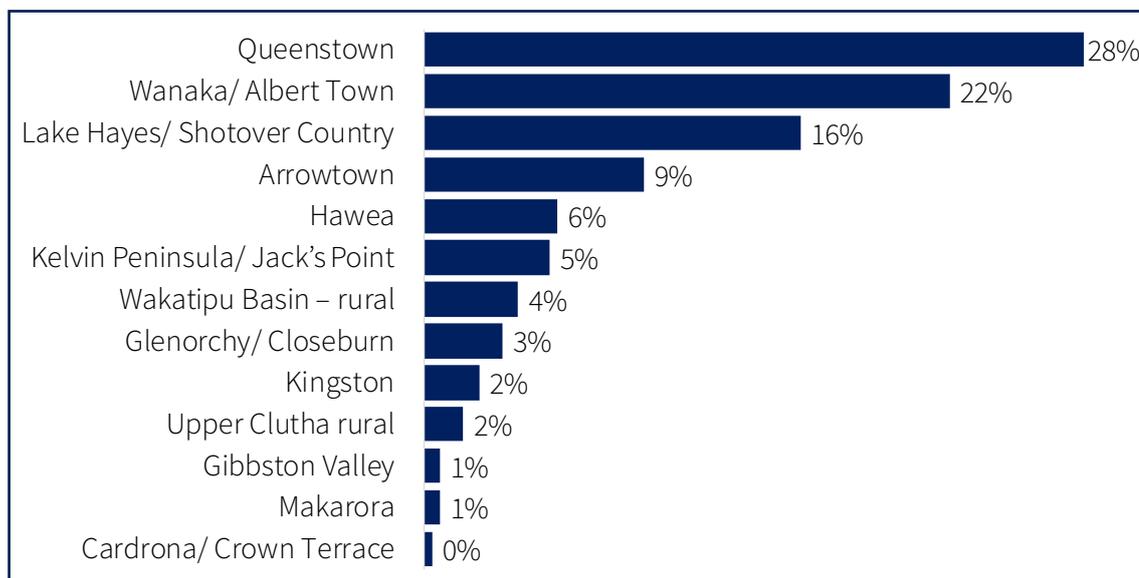


Chart 36: Urban/ Rural Split

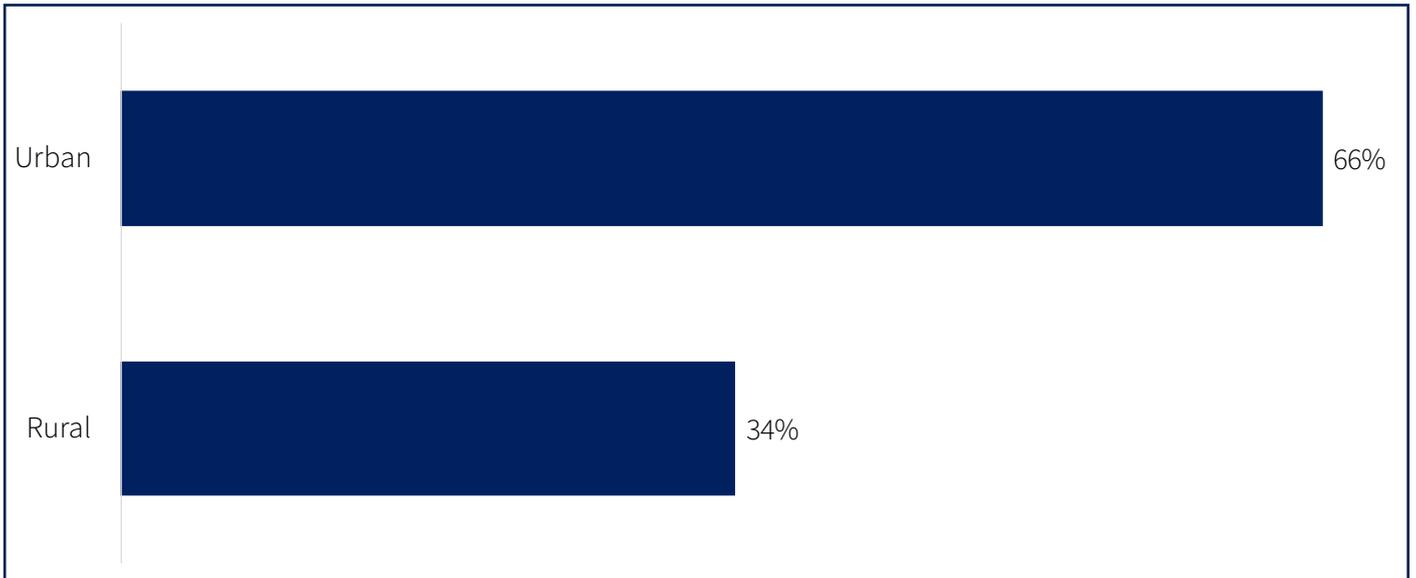


Chart 37: Urban Breakdown

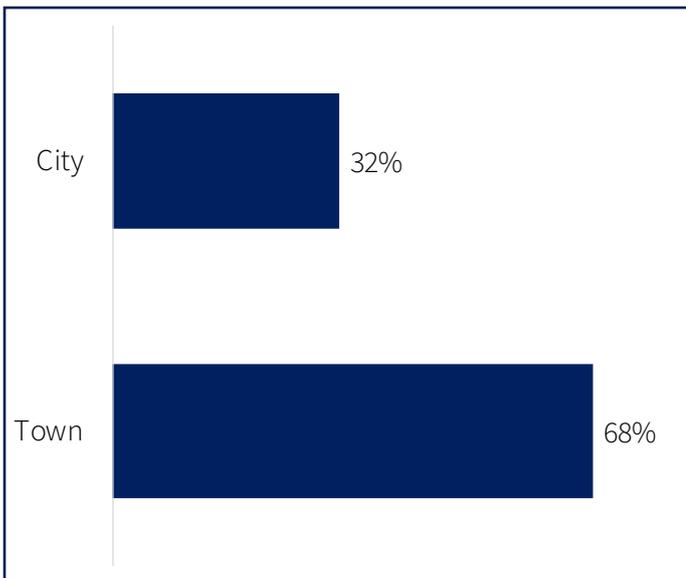


Chart 38: Rural Breakdown

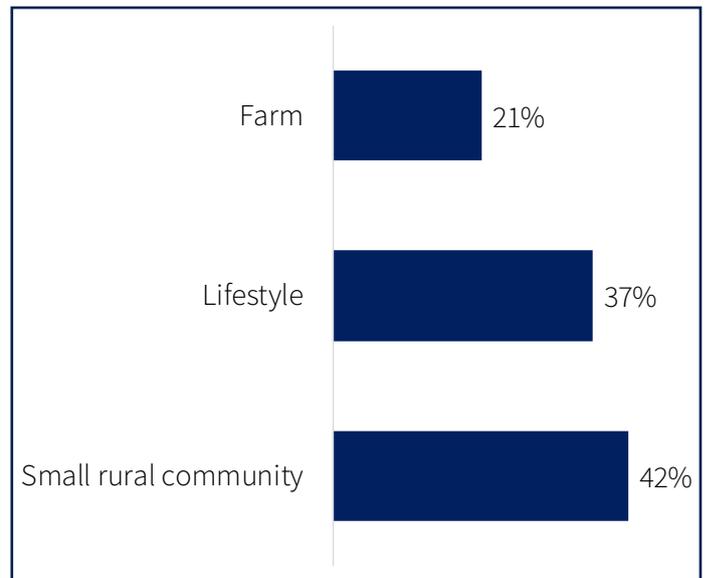


Chart 39: Home Ownership

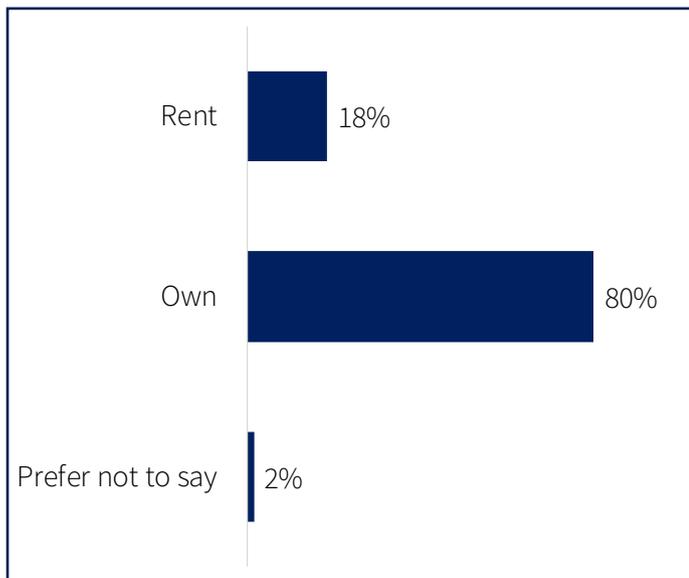


Chart 40: Tenure in Area

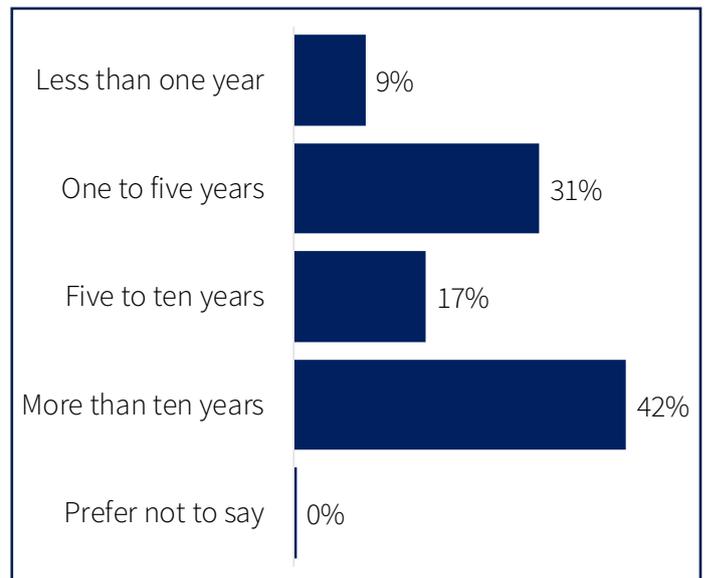


Chart 41: Previously Experienced Emergency

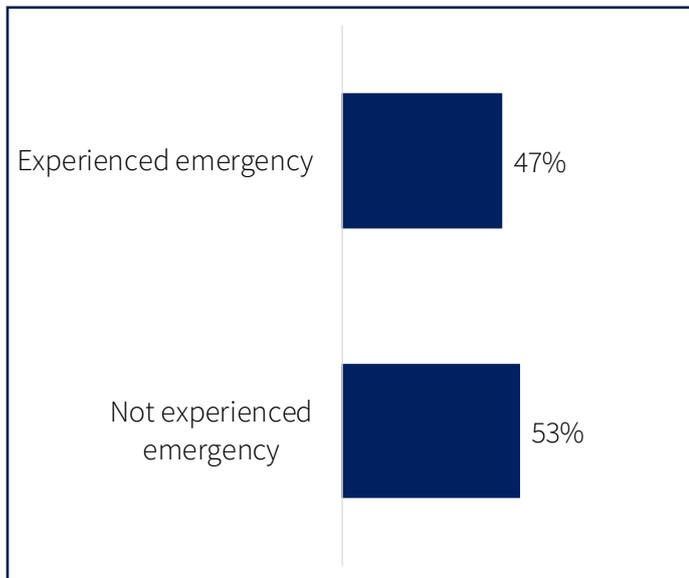


Chart 42: Household Situation

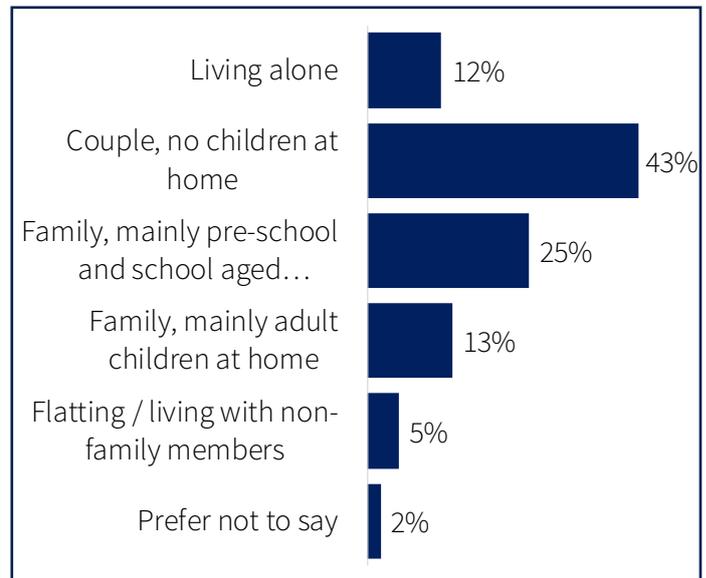


Chart 43: Country of Birth

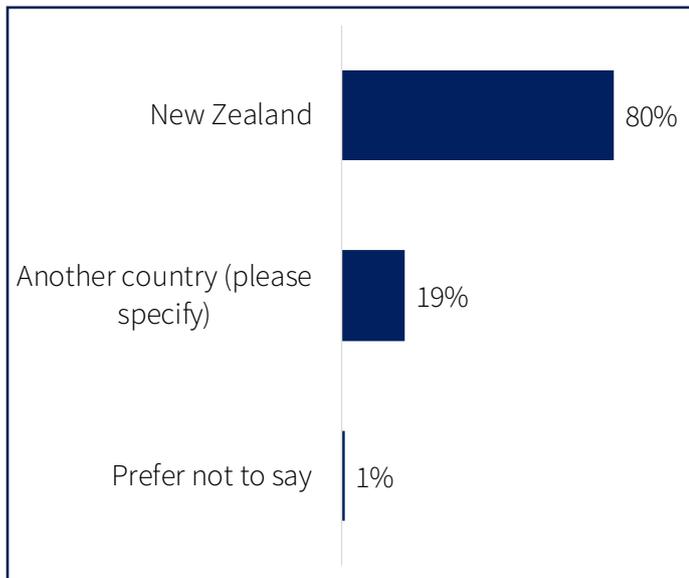


Chart 44: Age

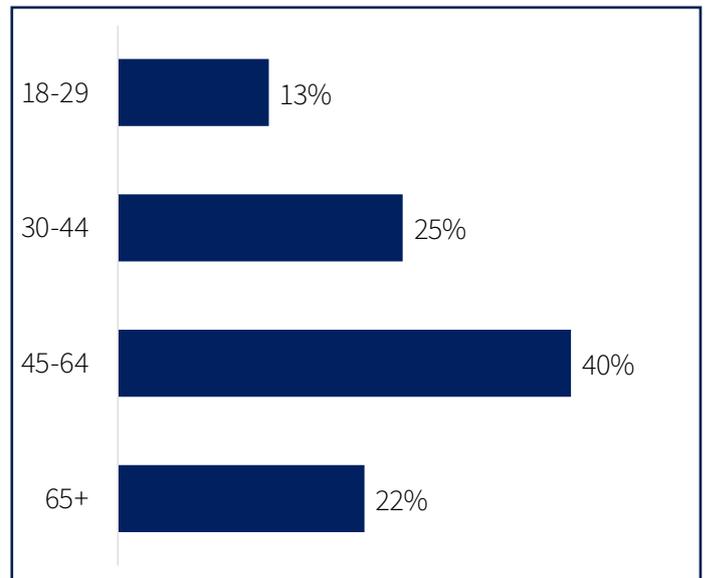


Chart 45: Gender

