

# Wellington Region Emergency Management Preparedness Survey Report 2012



<b>Prepared by</b>	Russell Pepperell assisted by Bruce Pepperell
<b>Commissioned by</b>	Trevor Farmer for the Wellington Region Emergency Management Office
<b>Purpose</b>	The report summarises the results of a survey conducted in the Porirua and Kapiti areas during the first half of 2012, specifically looking at levels of preparedness in the community. A total of 937 people participated.

**Approved: Bruce Pepperell**  
Regional Manager, CDEM

**Dated: 10 Oct 12**

FOR FURTHER INFORMATION

Bruce Pepperell

WREMO  
PO Box 11 646  
Wellington 6146



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# 1 Introduction

Both the Ministry of Civil Defence Emergency Management and the Wellington Region CDEM Group have commissioned surveys covering the level of preparedness in our region. The nature of the questions and level of sampling however may not be sufficiently comprehensive to allow the Wellington Region Emergency Management Office (WREMO) to gauge the actual level of preparedness and more specifically to better target resilience building initiatives within the diverse communities which collectively comprise the region. The intent therefore was to pilot a new survey in the Kapiti Porirua area as a precursor to possible wider deployment.

## 1.1 Survey Pedigree

The new survey's origins were in a previous survey conducted by the Victoria University School of Psychology. Permission was gained from Dr John McClure to use and develop their material. The survey requested profile data (age, income, ethnicity, membership of community organisations, home location, home ownership and length of time at that address) along with answers to questions on Reduction and Readiness issues (how prepared for an earthquake, measures to minimise damage - hot water cylinder secured etc, and the availability of preparedness enablers - torch, water etc)

## 1.2 Conduct of Survey

The survey was administered by CDEM staff and volunteers as they engaged with members of the community. A significant number of surveys were completed at community festival events. The individual hard copy surveys were then entered into a spreadsheet for analysis.

Several of the surveys were completed by people who lived outside the Kapiti-Porirua survey region. These have been included for completeness and comparison. In fact there was such a spread in the location of participants that the numbers living in some suburbs were considered too small to constitute a sample. Accordingly where there were less than 30 surveys, suburbs were grouped based on location, as follows:

- Aotea, Ascot Park
- Kenepuru, Elsdon, Takapuwahia, Titahi Bay
- Waitangirua
- Cannons Creek, Ranui Heights
- Whitby
- Camborne, Paremata, , Pukerua Bay, Paekakariki
- Raumati, Raumati South
- Paraparaumu
- Waikanae
- Otaki, Peka Peka, Te Horo
- Wellington City
- Hutt Valley
- Other (People who participated but didn't include their location - over 300 surveys)

## 2 Results

The following summarises the responses to the various questions related to either profile, reduction activities, or availability of preparedness enablers (readiness).

### 2.1 Profile

Of the full range of participants:

- Income was well spread with 46.2% of those surveyed earning between \$40,000 and \$80,000
- 91.3% of those surveyed were aged 25 or over
- NZ European was the dominant ethnic group at 61.9% followed by Maori 16.2% and Pacific Islands 15.2%
- Just over half, 53.3%, were members of a community organisation (church, youth group, Lions, Rotary, Sports Clubs etc)
- Paraparaumu at 17.3%, Cannons Creek 15.9%, and Waikanae 10.4%, represented the largest sample groups
- 64.4% of those surveyed owned their own home
- 29.7% of people surveyed stated they had lived in their current residence for over 10 years. 75.7% had lived at their address for two years or more
- The mean self rating of earthquake preparedness was 4 (on a scale of 1 to 7, where 1 was not at all prepared and 7, very prepared). This meant that people considered that they were somewhat prepared.

## 2.2 Reduction

In addition to those questions designed to determine the sample profile, the following questions were asked in relation to Reduction issues:

#	Question	Pages	
		Survey Total	By Area
1	<p><b>I have thought about the risk of a major earthquake when deciding to live in my house.</b></p> <p>58.2% of people answered yes to this question. Not a surprise given the well established risk profile of the region. Interestingly enough, the groups that gave most consideration to this factor were those from Aotea, Ascot Park and Waitangirua, followed by Hutt and Waikanae. The group who gave the least thought were those from Wellington.</p>	16	35
2	<p><b>I have fastened tall furniture to the wall.</b></p> <p>Only 31.9% of those surveyed answered yes to this question. Hutt Valley, Waikanae, Paraparaumu, and Raumati people (over 30%) were more likely to have their furniture fastened. Again people from Wellington (under 20%) brought up the rear</p>	16	35
3	<p><b>I have secured my hot water cylinder.</b></p> <p>49.3% of people answered yes to this question. 19% gave NA as their answer. The highest scoring suburbs were Hutt Valley, Otaki, Peka Peka, Te Horo, and Waikanae (50 to 60%). Wellington residents featured at number 5. This time, Whitby residents brought up the rear (just over 30%).</p>	17	35
4	<p><b>I have strengthened my chimney or satisfied myself that it will not fall down in a major earthquake</b></p> <p>Only 23.2% of people answered yes. 44.7% answered NA. Again residents of Otaki, Peka Peka, Te Horo, Waikanae and the Hutt Valley were best represented (30% or more) with Whitby and Wellington (under 5%) a distant last.</p>	17	36
5	<p><b>I have strengthened my house or satisfied myself that it will probably not collapse in a major earthquake</b></p> <p>Only 38.8% of those surveyed answered yes to this question. Once again, Otaki, Peka Peka, Te Horo, Hutt Valley, and Waikanae residents featured prominently (50+%), closely followed by Wellington residents. Waitangirua, Kenepuru, Elsdon, Takapuwahia, and Titahi Bay were last at 20%.</p>	18	36
6	<p><b>I have made sure my roof will probably not collapse in a major earthquake</b></p> <p>41.1% of people answered yes to this. The best reported suburbs were Aotea, Ascot Park, Waikanae and Otaki, Peka Peka, Te Horo (all 45% or higher) with Wellington, Kenepuru, Elsdon, Takapuwahia, and Titahi Bay (20% or less)</p>	18	36
7	<p><b>I have arranged the cupboards so that heavy objects are stored at ground level</b></p>	19	37

	59.3% answered yes. Hutt Valley, Paraparaumu, Aotea, and Ascot Park featured best here (approx 60% or more) with Waikanae, Kenepuru, Elsdon, Takapuwahia, Titahi Bay, and Otaki, Peka Peka, Te Horo below 50%.		
8	<b>My cupboards are securely fastened with latches.</b>  40.7% answered yes. Waitangirua, Aotea, Ascot, and Cannons Creek rating over 50% and Camborne, Paremata, Plimmerton, Pukerua Bay, and Paekakariki barely over 20%. Observation: The answer to this question could be clouded by people reducing the risk with small children.	19	37
9	<b>I have made sure that the objects that contain water are not stored on top of electrical equipment (e.g. Goldfish bowl on a TV)</b>  83.9% of people answered yes. Most suburbs rated highly with Cannons Creek and Waitangirua less than 70%	20	37
10	<b>I have made sure that heavy objects are stored on the floor</b>  80.5% answered yes. There was little difference between suburbs with Paraparaumu over 80% through to Raumati less than 70%	20	38
19	<b>I have secured movable objects in my home (computer, TV)</b>  Only 29.5% of people answered yes. Hutt Valley residents scored best on over 50%. The rest ranged between 32% (Cannons Creek) and 15% Waitangirua	25	41

### 2.3 Readiness

In addition to the reduction questions above, the following questions were asked on Readiness issues:

#	Question	Results Pages	
		Survey Total	By Area
11	<b>I have stored water for survival (Recommended 15lt per person per day for 10 days)</b>  66.9% answered yes. Hutt Valley, Paraparaumu, and Raumati scored best at over 70% with Whitby bringing up the rear (just over 40%). Observation: For a 2 plus 2 family, this would equate to 600lts. That is 200 juice bottles! Admittedly some people would have access to water tanks however I would question the validity of the response provided.	21	38
12	<b>I have put aside buckets and toilet paper for use as an emergency toilet</b> 57% answered yes. Hutt Valley, Paraparaumu, Raumati, Whitby and Waikanae rated 60% or more. Kenepuru, Elsdon, Takapuwahia, Titahi Bay brought up the rear so to speak at just over 30%.	21	38
13	<b>I have enough tools to make minor repairs to the house</b>	22	39

	82.1% answered yes. Camborne, Paremata, Plimmerton, Pukerua Bay, Paekakariki, Raumati, and Paraparaumu rated higher than 90%. Waitangirua was a distant last at just over 40%.		
14	<b>I have a supply of tinned food that could be used in an emergency</b>  83.2% answered yes. There was little difference between the Kapiti suburbs at 80+%. Again Waitangirua was the least prepared at just over 60%.	22	39
15	<b>I have acquired a first aid kit</b>  80.5% answered yes. There was little difference across the suburbs however Waitangirua was a distant last at 50%	23	39
16	<b>I have a supply of essential medicines for illness and allergy</b>  80.1% answered yes. Kapiti suburbs featured at the high end (85+%, observation, maybe a factor of demographic profile) with Waitangirua, Kenepuru, Elsdon, Takapuwahia, Titahi Bay rating roughly 55%	23	40
17	<b>I have a working battery radio</b>  74% answered yes. Raumati, Paraparaumu, Waikanae rated over 80%, with Waitangirua, Kenepuru, Elsdon, Takapuwahia, Titahi Bay bringing up the rear on at over 40%.	24	40
18	<b>I have a working torch</b>  90.5% answered yes. There was little difference between Camborne, Paremata, Plimmerton, Pukerua Bay, Paekakariki, Paraparaumu, Otaki, Peka Peka, Te Horo (over 90%) with Whitby and Waitangirua a little over 70%.	24	40
20	<b>I have access to an alternative cooking source (eg BBQ)</b>  82.9% answered yes. Camborne, Paremata, Plimmerton, Pukerua Bay, Paekakariki rated 90%. Kenepuru, Elsdon, Takapuwahia, Titahi Bay rated a little over 60%.	25	41
21	<b>I have arranged a place to meet my family after an earthquake</b>  51.8% answered yes. Hutt Valley and Waitangirua residents featured best at over 60%. Camborne, Paremata, Plimmerton, Pukerua Bay, Paekakariki rated poorly at approx 26%.	26	41
22	<b>I have a working fire extinguisher</b>  43.1% answered yes. Camborne, Paremata, Plimmerton, Pukerua Bay, Paekakariki, Raumati, Hutt Valley residents featured in the mid 50s. Waitangirua, Kenepuru, Elsdon, Takapuwahia, Titahi Bay rated under 20%.	26	42
23	<b>I have prepared for emergencies at work</b>  61.9% answered yes with Wellington residents out in front at over 70%. Waikanae and several other communities of the Kapiti Coast brought up the rear at under 40% (Observation - perhaps reflecting that proportionally more Kapiti residents are either retired or travel further to work and could be cut off from their home.	27	42

### 3 Comparison with other surveys

#### 3.1 Colmar Brunton

It is difficult to compare this WREMO survey with the results of the MCDEM sponsored Colmar Brunton research. Colmar Brunton focuses more on determining the effectiveness of various MCDEM campaigns. The sample across the nation is 1164 using a random telephone interviewing methodology. In this particular survey, many of the terms used are not defined and the resulting answers appear quite subjective, i.e.:

- 84% of people have emergency survival items, but what ,and for how long?
- Roughly 63% have a survival plan. Is this the equivalent of the WREMO “Its Easy” 12 step plan?
- 80% of people expect Civil Defence to help following a disaster, but help do what?
- 77% have a supply of emergency essential items other than food or water, but what items? According to the WREMO survey:
  - 82.9% have access to a gas BBQ
  - 90.5% have a working torch
  - 74% have a battery radio
- In the Colmar Brunton research, the Wellington region is better prepared than most other regions, however in the WREMO survey, residents rate themselves as being only somewhat prepared and this is supported by follow up questions.
- 79% of people of the Wellington region state they have 3lt pp for 3 days v 66% of people in the WREMO survey having 15lt pp for 10 days, although this is believed to be a flawed result.

In summary, the Colmar Brunton research adds little value to establishing a regional baseline designed to determine whether people are truly prepared.



### 3.2 Peter Glen Survey

The Peter Glen research commissioned by the Wellington Group in 2010, surveyed a total of 1100 residents across the region. While this research covers some different ground from this survey, there is greater overlap with WREMO survey outcomes. Examples include:

- In the Peter Glen (PG) survey 68% of people rate their level of preparedness as good or better v WREMO where the mean assessment is "somewhat prepared";
- PG – Kapiti and Lower Hutt rate higher in terms of preparedness. This is supported by the WREMO survey;
- Other comparisons (people having various preparedness enablers):

Torch	<b>PG</b>	73%	<b>WREMO</b>	90.5%
First Aid kit	<b>PG</b>	73%	<b>WREMO</b>	80.5%
Radio	<b>PG</b>	65%	<b>WREMO</b>	74%
Emergency Cooker	<b>PG</b>	61%	<b>WREMO</b>	82% (access to)
Medication	<b>PG</b>	64%	<b>WREMO</b>	80.1%

Overall this survey had data of greater value to Emergency Managers than Colmar Brunton, however the observation is that we have multiple surveys, yet none of them define and measure preparedness in terms that might allow Emergency Managers to better understand cause and effect and therefore target activities or communities resulting in more positive CDEM outcomes.

## 4 WREMO Survey conclusions

Notwithstanding the means of determining the survey sample may not be as random as the two telephone surveys (relying on people having a phone and being home etc), there is no reason to believe the findings are any less valid. These findings are as follows:

- a. The people's self assessment of being "somewhat prepared" is considered a good reflection given the data they supplied to the more explicit questions;
- b. Kapiti and Hutt Valley residents in general are the best prepared for an earthquake however individual question results varied markedly (with Kapiti residents among the worst prepared at work);
- c. Notwithstanding the conclusion above, there is considerable scope for further engagement to determine and improve the overall level of resilience across the region;
- d. Reduction issues (location planning, fastening tall furniture, secured hot water cylinder, chimney, house roof etc) remain a major opportunity for improvement throughout most suburbs;
- e. Many of the residents of lower socio-economic suburbs have fewer preparedness enablers (torches, battery radios, first aid kits, medicines, BBQs);
- f. Many of the deficiencies identified in the survey results could be overcome if more people completed the WREMO 12 step booklet "It's Easy - Get prepared for an emergency".

## 5 Recommendations

Based on the survey data, observations, and conclusions:

- a. Further education is warranted to promote risk/hazard reduction in homes;
- b. Fresh ways are required to engage with communities on preparedness matters;
- c. Greater community penetration could be achieved by targeting community groups as a conduit for getting the community resilience message through to individuals;
- d. Preparedness enablers should be made available at more affordable prices and promoted/sold in a way that encourages more people to acquire them.

Lastly and perhaps most importantly,

- e. WREMO should engage with MCDEM and local EM academics to better determine what constitutes resilience and preparedness; and to then formulate a range of measures to establish a baseline for improvement, thereby focusing staff attention on the vital few activities in the community that will enable the greatest progress toward the vision.

## 6 Survey improvements

Lastly, the following enhancements could be made to the means of data capture to reduce the administrative overhead:

- a. Survey data should be captured electronically if possible;
- b. The suburbs/communities locations could be better grouped and the survey area extended to include the entire Wellington region. This would provide a baseline for further surveys to determine the impact of WREMO preparedness initiatives;
- c. Future surveys should be included as part of the Community Resilience team function;
- d. WREMO should acquire/utilise proper analysis software to better mine the data provided.

Russell Pepperell  
Psychology Student  
Victoria University

## 7 References

- a. Ministry of Civil Defence and Emergency Management - Campaign Monitoring Research 2011 dated July 2011
- b. Peter Glen Research - Community Survey into Emergency Preparedness 2010, Research report prepared for the Greater Wellington Regional Council dated June 2010

## 8 Attachments

1. Survey
2. Summary of results: Profile (graphed)
3. Summary of results: By question (graphed)
4. Summary of results: Grouped by area (graphed)
5. Summary of results: By question - Area in descending order (graphed)

## 8.1 Attachment 1: Survey



**Age**    24 and under                      25-40                      41-60                      61+

**Annual Household Income**

Less than \$20,000                      \$20,000-\$40,000                      \$40,000-\$60,000  
\$60,000-\$80,000                      \$80,000-\$100,000                      More than \$100,000

**Ethnicity**

NZ European                      NZ Maori                      Pacific Island  
Asian                      European                      Other (Please specify)

**Are you a member of a community organisation (e.g. church, youth group, Lions, Rotary, sports club)?**                      Yes                      No

**Where do you live? (circle one)**

<b>Porirua</b>	Aotea	Ascot Park	Camborne	Cannons Creek	Elsdon
	Hongoeka	Judgeford	Kenepuru	Paekakariki Hill	Paremata
	Papakowhai	Pauatahanui	Pukerua Bay	Ranui	
	Takapuwhia	Titahi Bay	Waitangirua	Whitby	
<b>Kapiti</b>	Paekakariki	Raumati South	Raumati	Paraparaumu	Waikanae
	Peka Peka	Te Horo	Otaki		

**Wellington                      Hutt Valley**

**Do you own your own home?**                      Yes                      No

**How long have you lived in your current residence?**

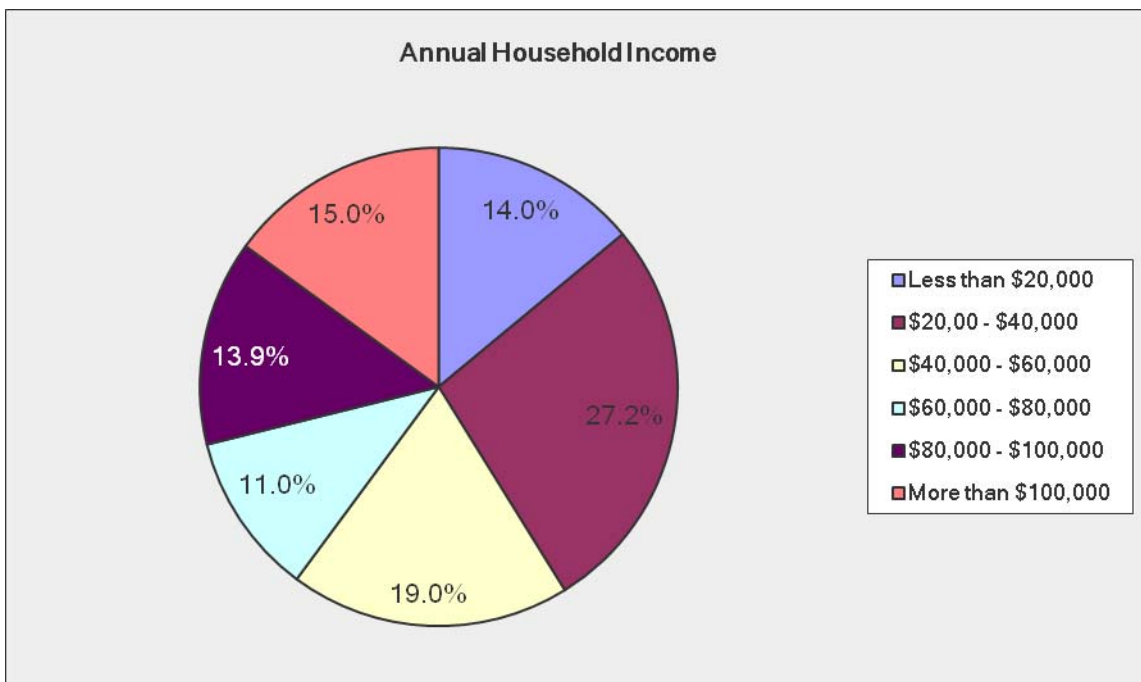
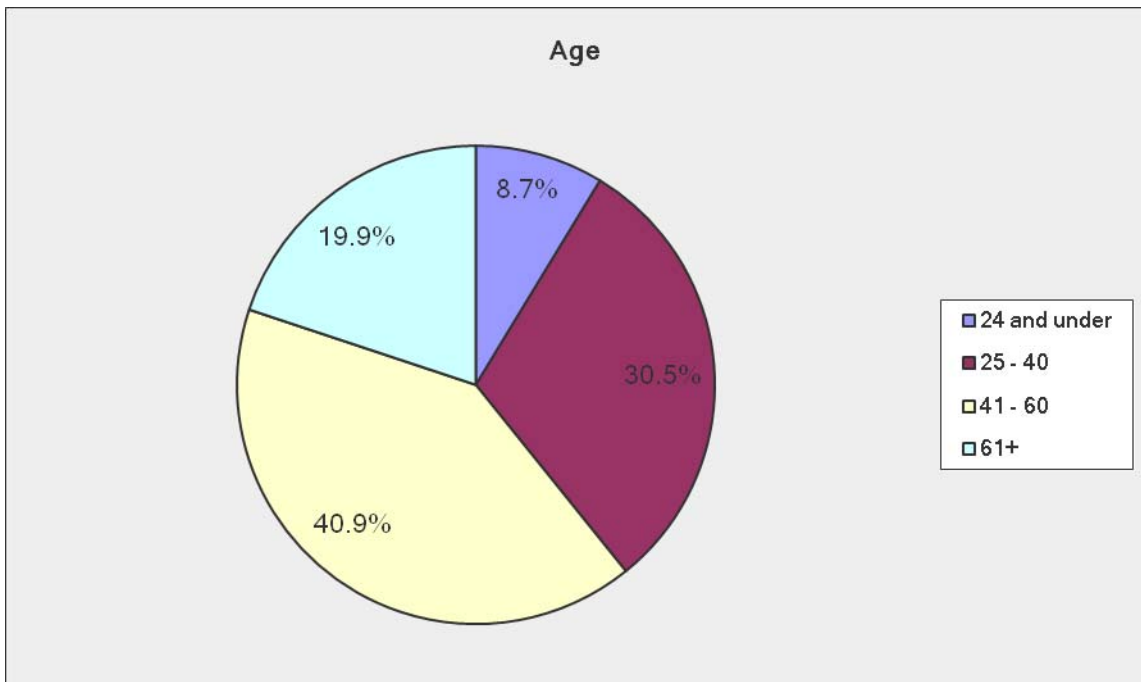
Less than one year                      1-2 years                      2-4 years                      4-6 years  
6-8 years                      8-10 years                      More than 10 years

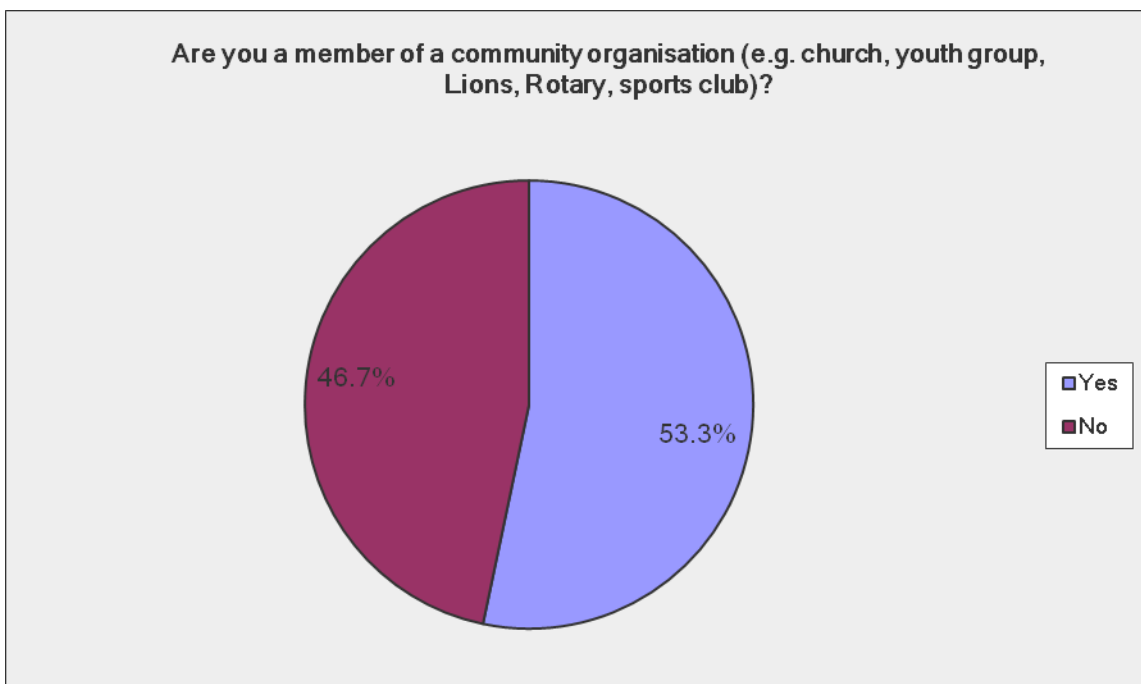
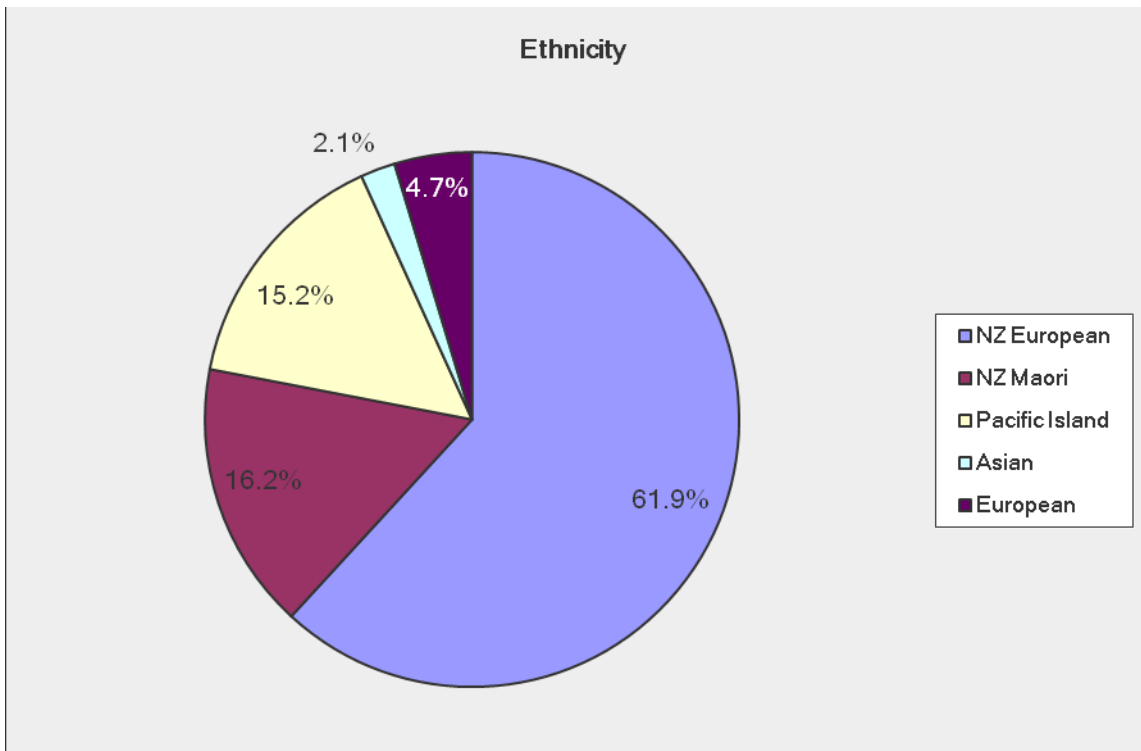
**Do you think that you are prepared for a major earthquake? (Circle most appropriate)**

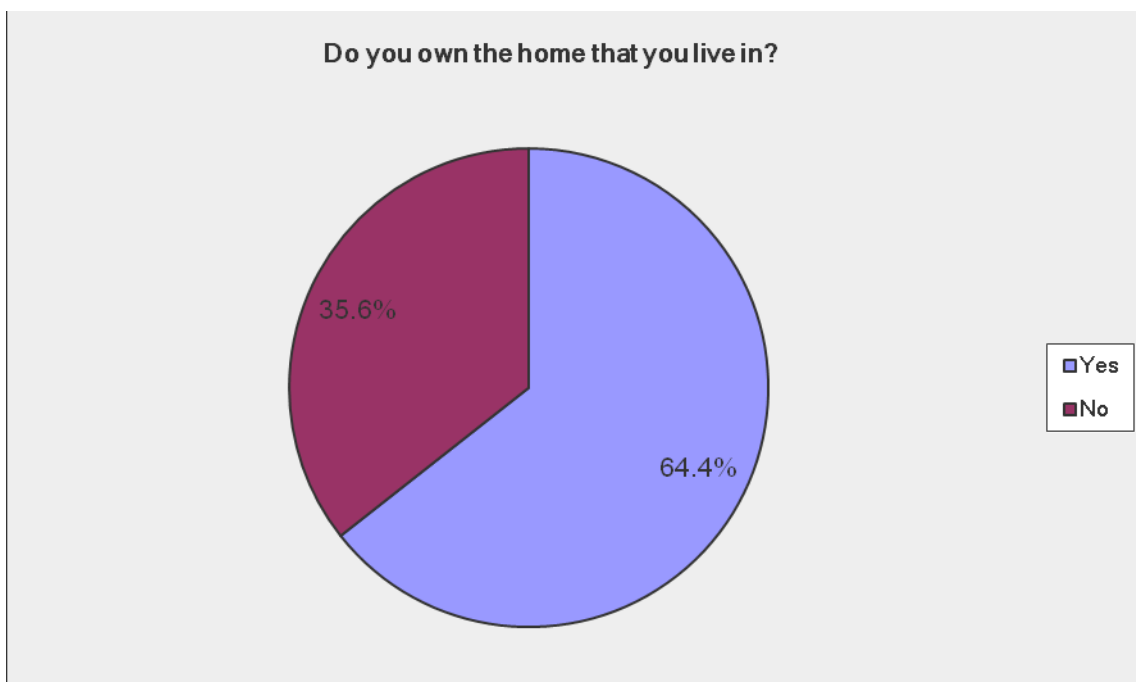
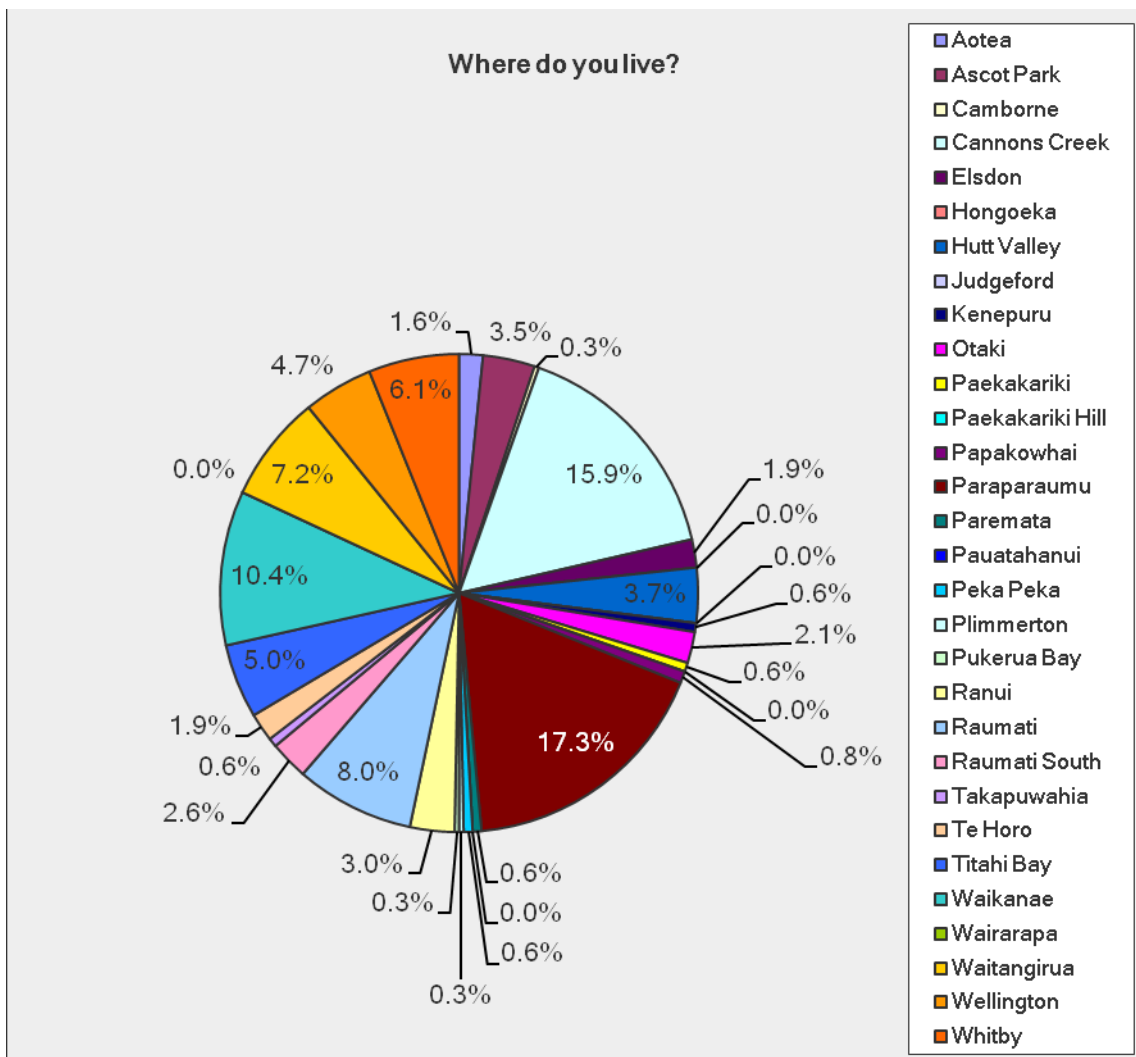
1	2	3	4	5	6	7
Not at all Prepared			Somewhat prepared			Very Prepared

- |  |     |    |     |
|--|-----|----|-----|
| 1. I have thought about the risk of a major earthquake when deciding to live in the house that I do now.   | Yes | No |     |
| 2. I have fastened tall furniture to the wall.   | Yes | No |     |
| 3. I have secured my hot water cylinder.   | Yes | No | N/A |
| 4. I have strengthened my chimney, or satisfied myself that it will not fall down in a major earthquake.   | Yes | No | N/A |
| 5. I have strengthened my house to increase its earthquake resistance, or satisfied myself that it probably will not collapse in a major earthquake.         | Yes | No |     |
| 6. I have made sure that my roof will probably not collapse in a major earthquake.   | Yes | No |     |
| 7. I have arranged the cupboards so that heavy objects are stored at ground level.   | Yes | No |     |
| 8. My cupboards are securely fastened with latches.  | Yes | No |     |
| 9. I have made sure that objects which contain water are not stored on top of electrical equipment (e.g. a pot plant or fish bowl on top of the television). | Yes | No |     |
| 10. I have made sure that heavy objects are stored on the floor.   | Yes | No |     |
| 11. I have stored water for survival (Recommended 15L per person, per day for 10 days).  | Yes | No |     |
| 12. I have put aside buckets and toilet paper for use as an emergency toilet.  | Yes | No |     |
| 13. I have enough tools to make minor repairs to the house.  | Yes | No |     |
| 14. I have a supply of tinned food that could be used in an emergency.   | Yes | No |     |
| 15. I have acquired a first aid kit.   | Yes | No |     |
| 16. I have a supply of essential medicines for illness and allergies.  | Yes | No |     |
| 17. I have a working battery radio.  | Yes | No |     |
| 18. I have a working torch.  | Yes | No |     |
| 19. I have secured movable objects in my home (e.g. computer or television).   | Yes | No |     |
| 20. I have access to an alternative cooking source (e.g. gas barbecue).  | Yes | No |     |
| 21. I have arranged a place to meet my family after an earthquake.   | Yes | No |     |
| 22. I have a working fire extinguisher.  | Yes | No |     |
| 23. I have prepared for emergencies at work.   | Yes | No |     |

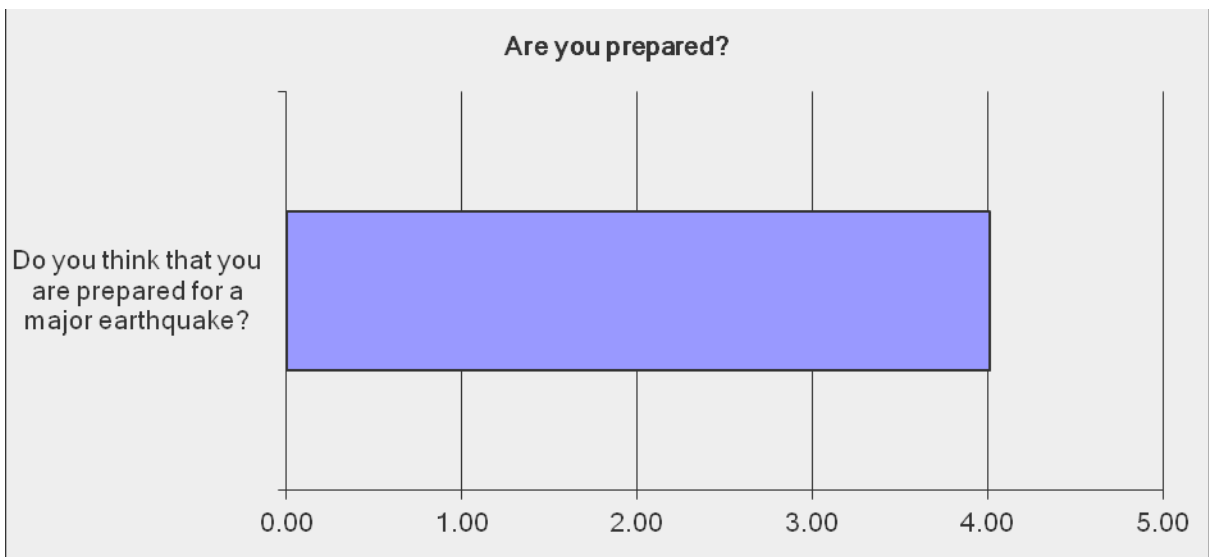
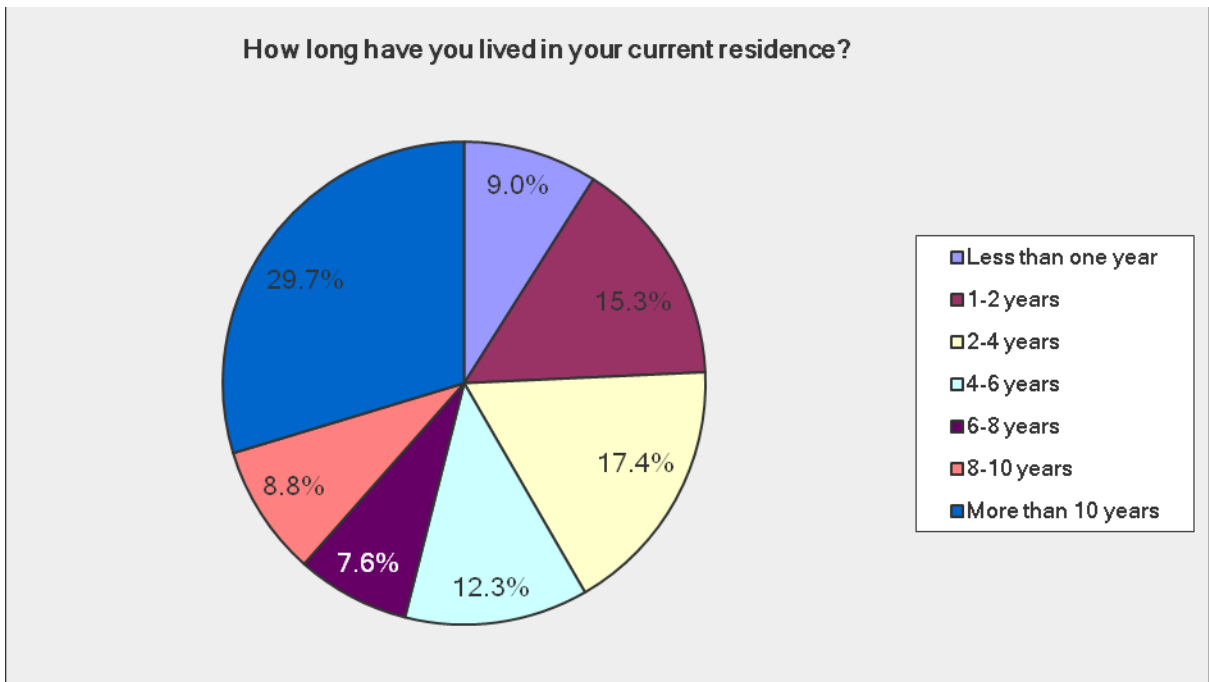
## 8.2 Attachment 2: Summary of results: Profile



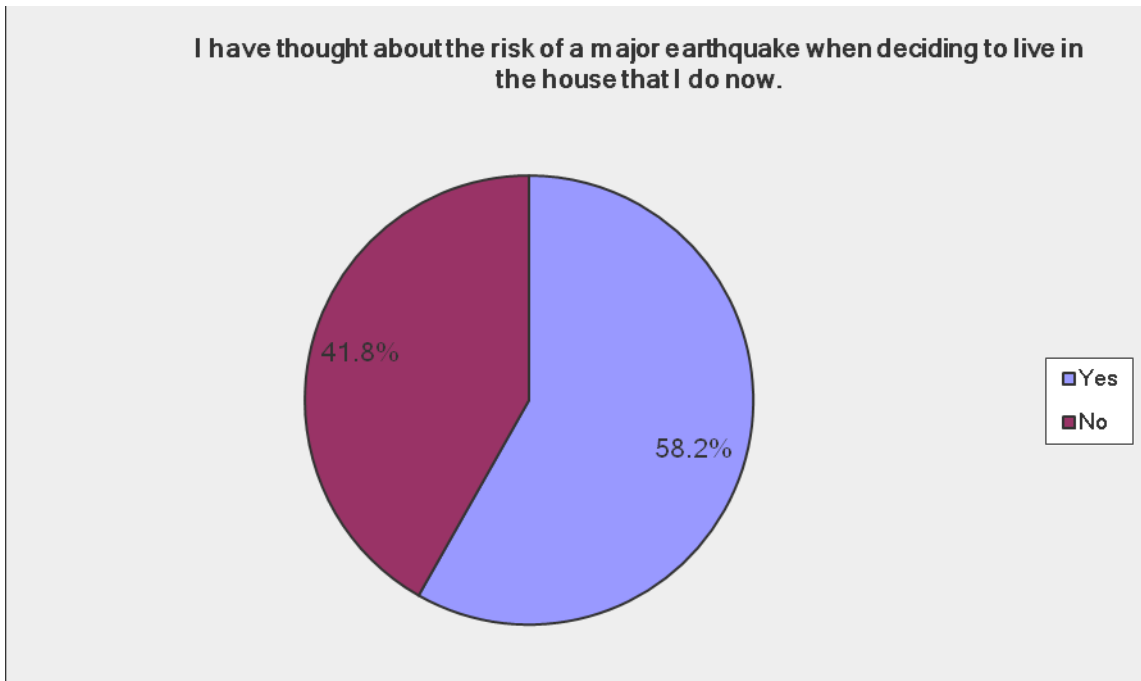




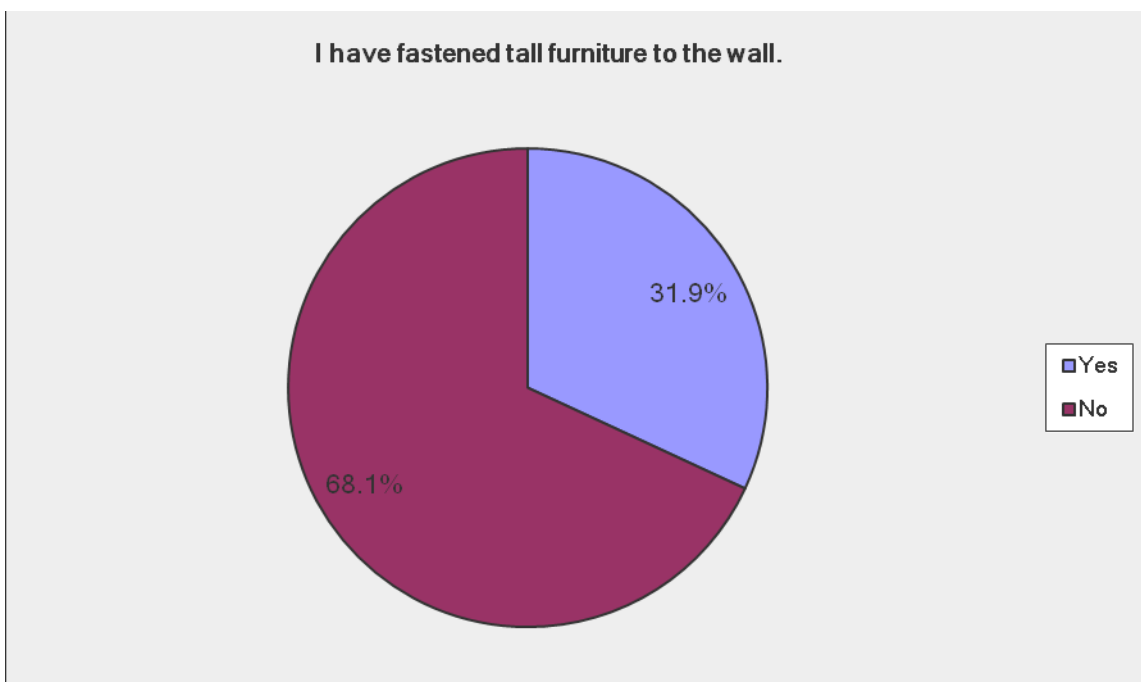




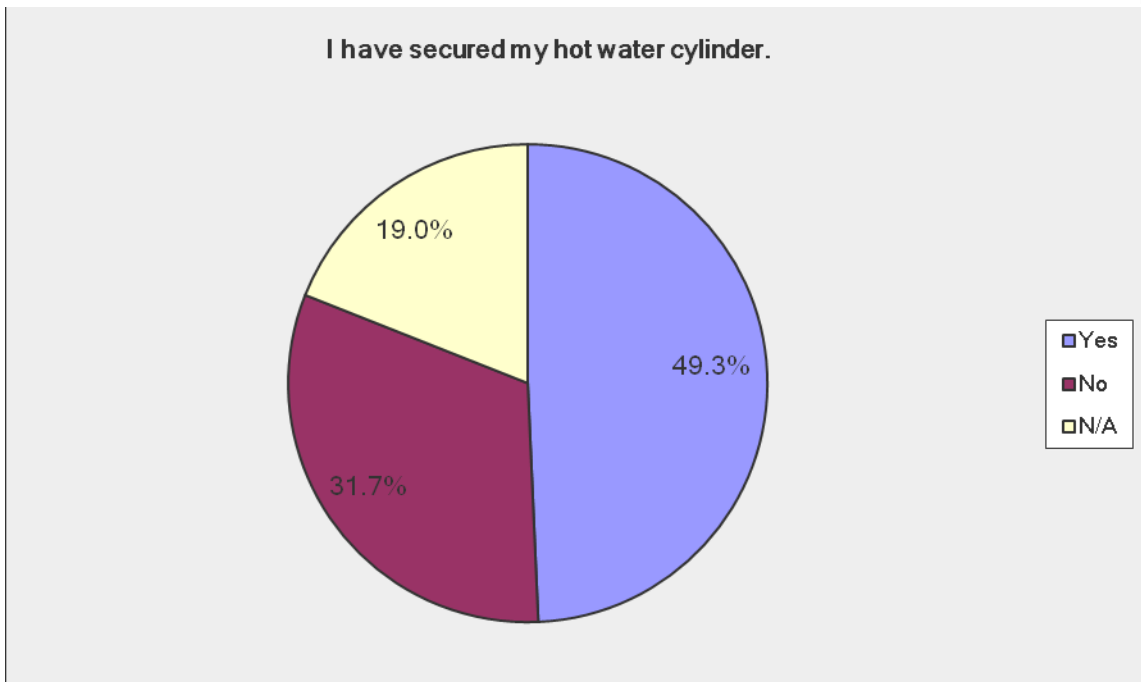
### 8.3 Attachment 3: Summary of results: By question



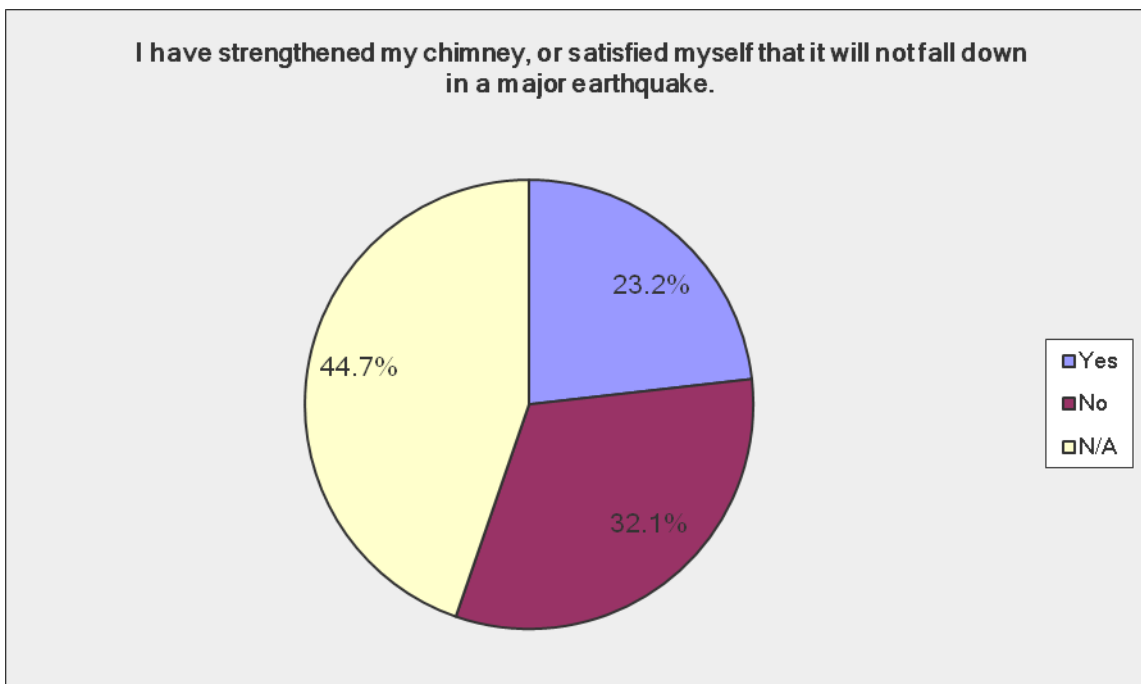
Question 1



Question 2

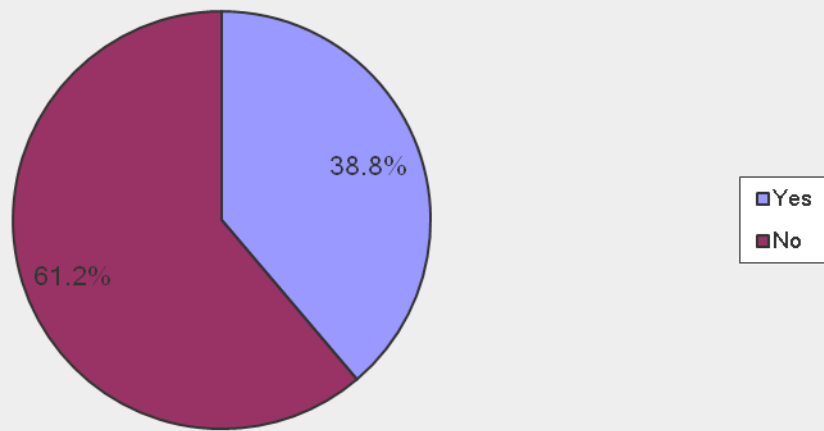


Question 3



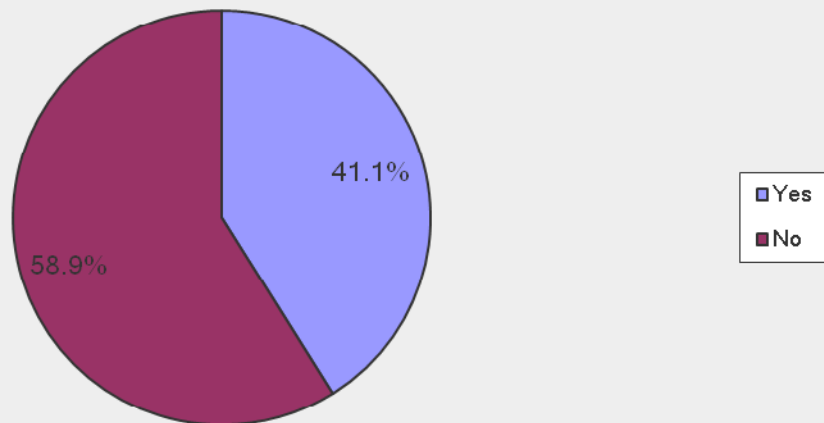
Question 4

I have strengthened my house to increase its earthquake resistance, or satisfied myself that it probably will not collapse in a major earthquake.

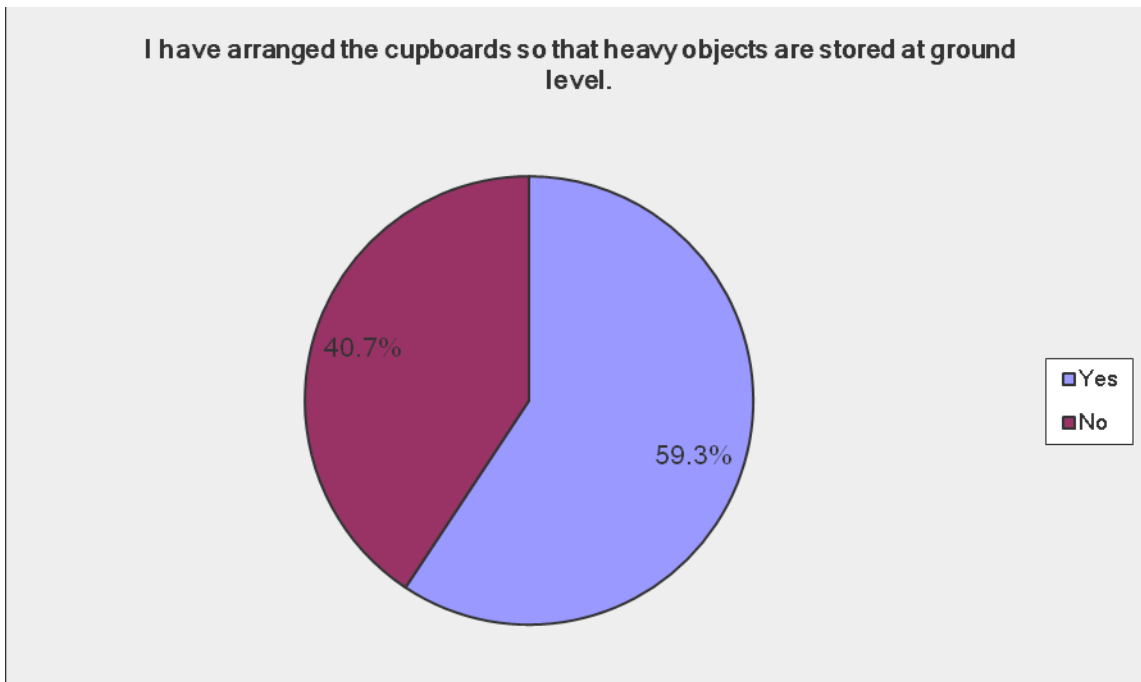


Question 5

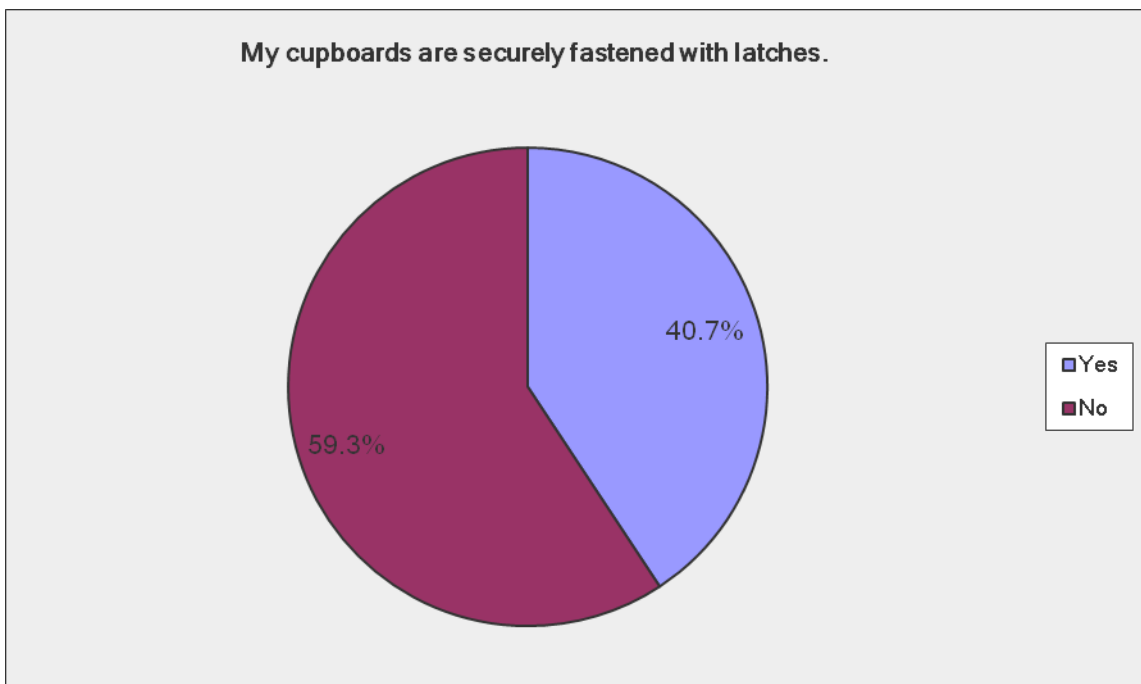
I have strengthened my roof to increase its earthquake resistance, or satisfied myself that it will not collapse in a major earthquake.



Question 6

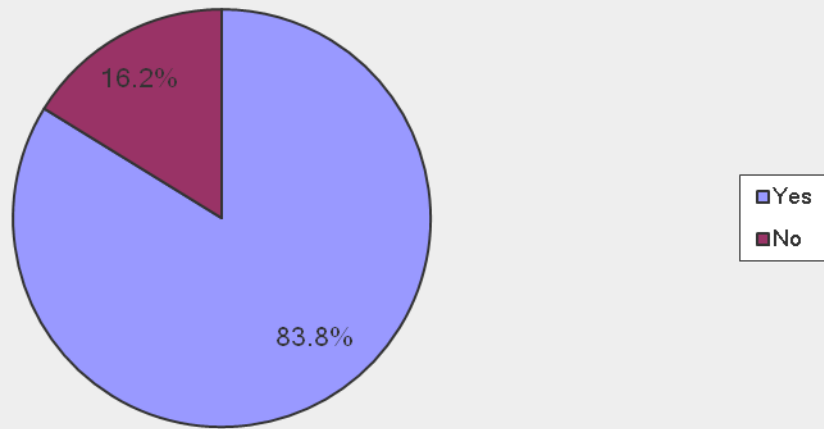


Question 7



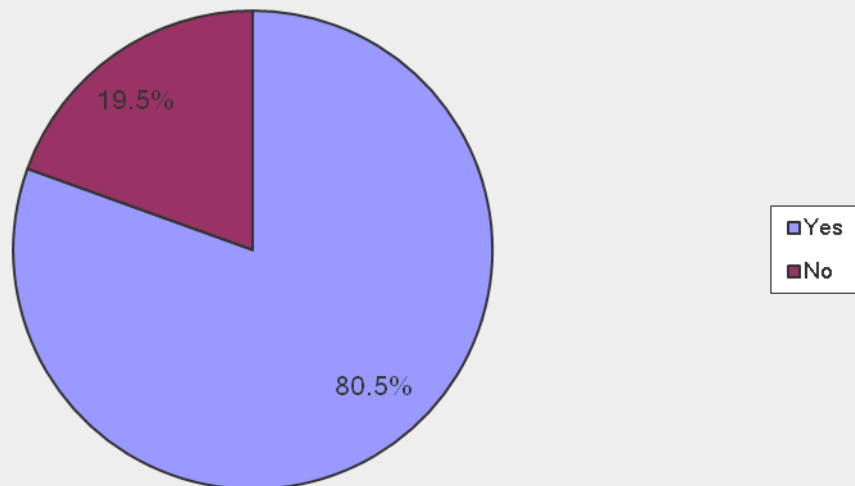
Question 8

I have made sure that objects which contain water are not stored on top of electrical equipment (e.g. a pot plant or fish bowl on top of the television).

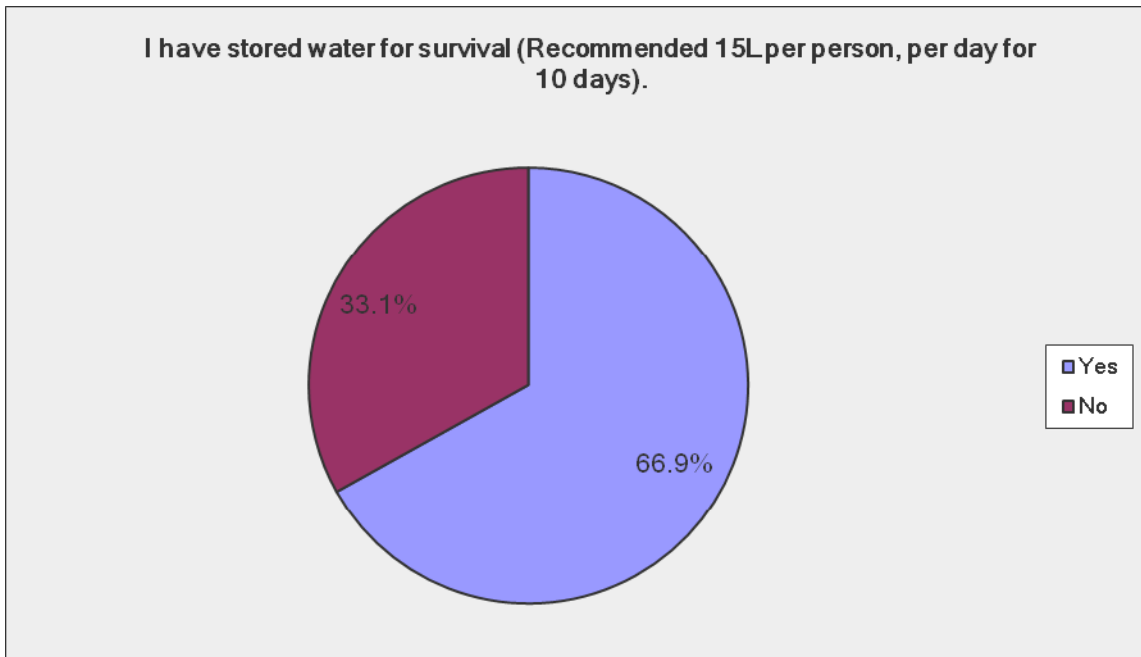


Question 9

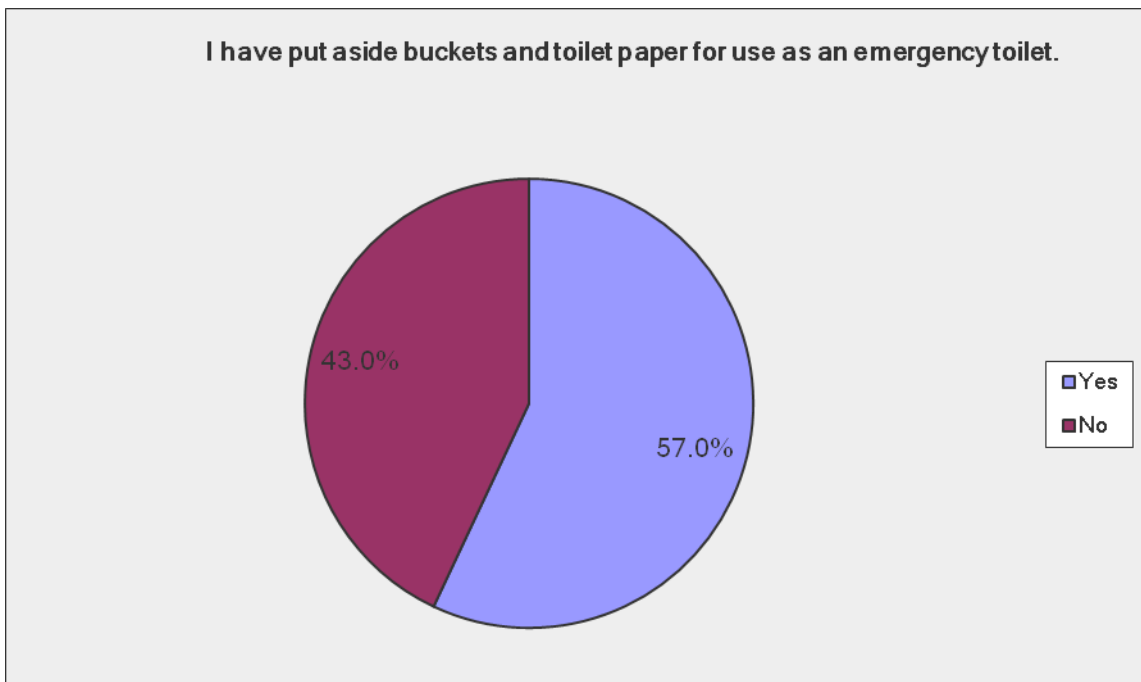
I have made sure that heavy objects are stored on the floor.



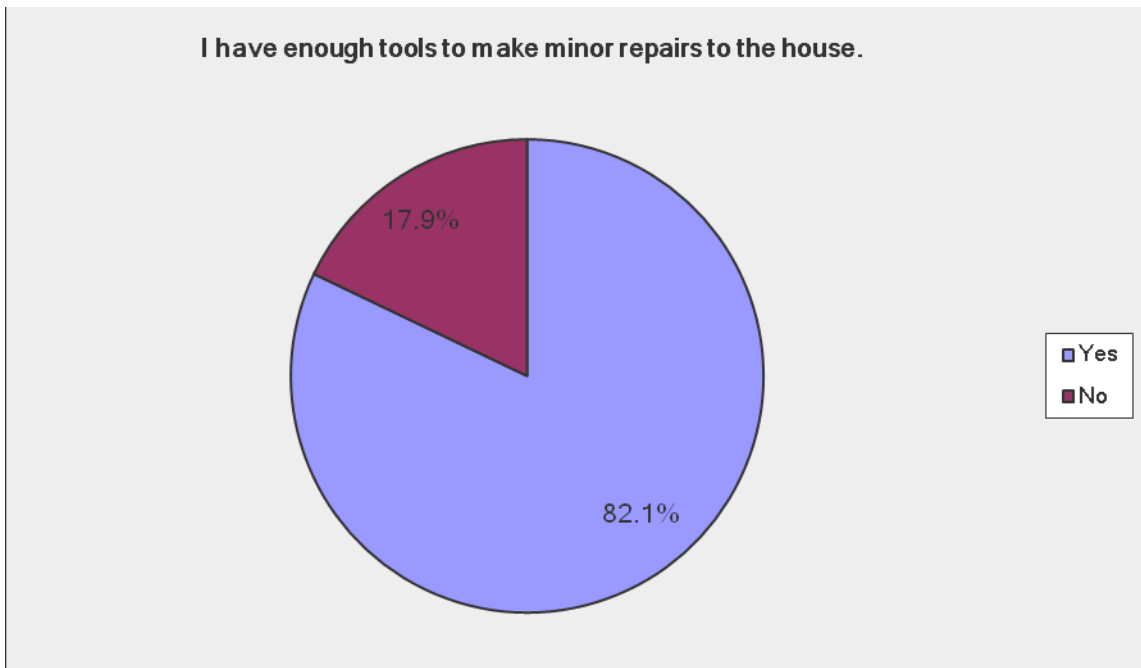
Question 10



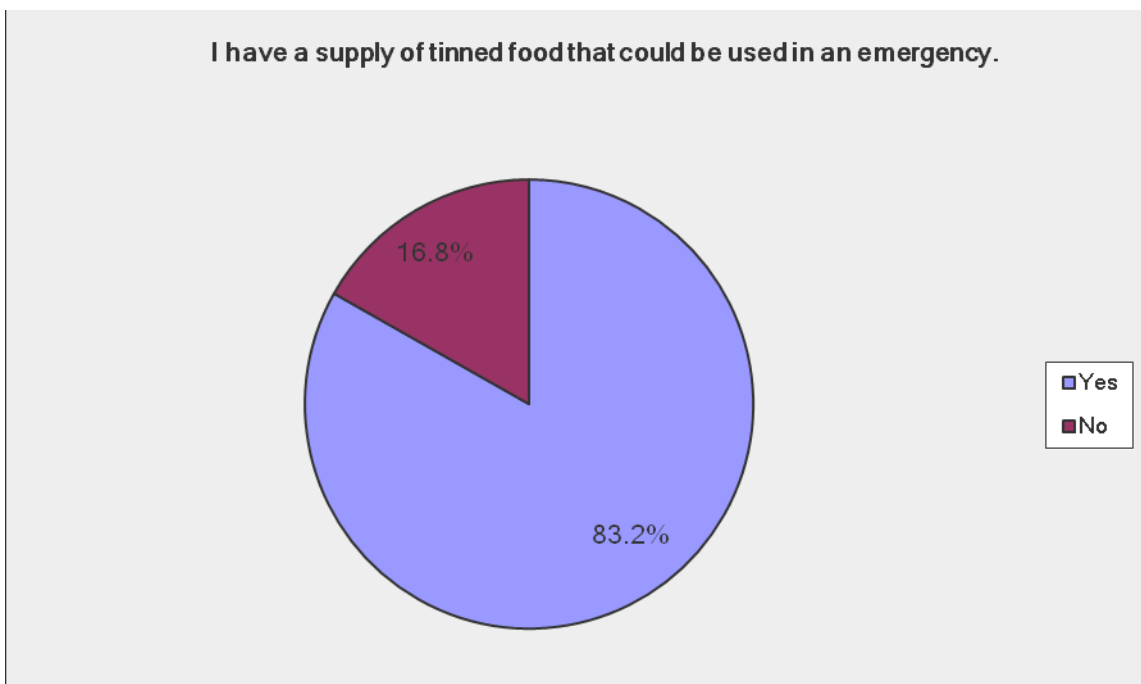
Question 11



Question 12

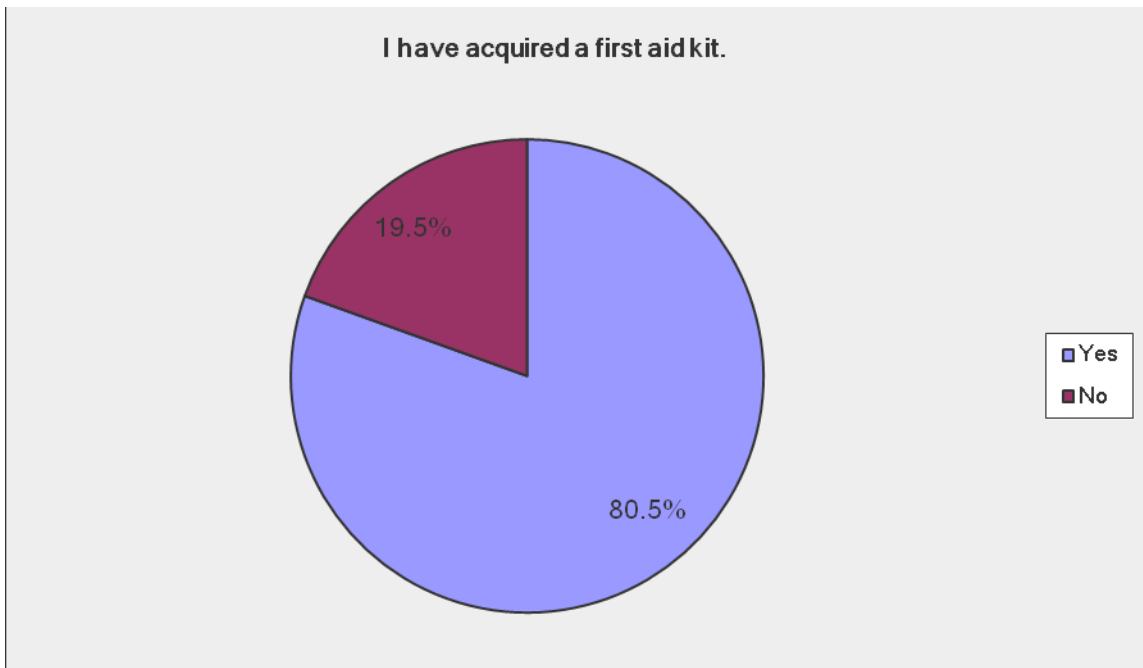


Question 13

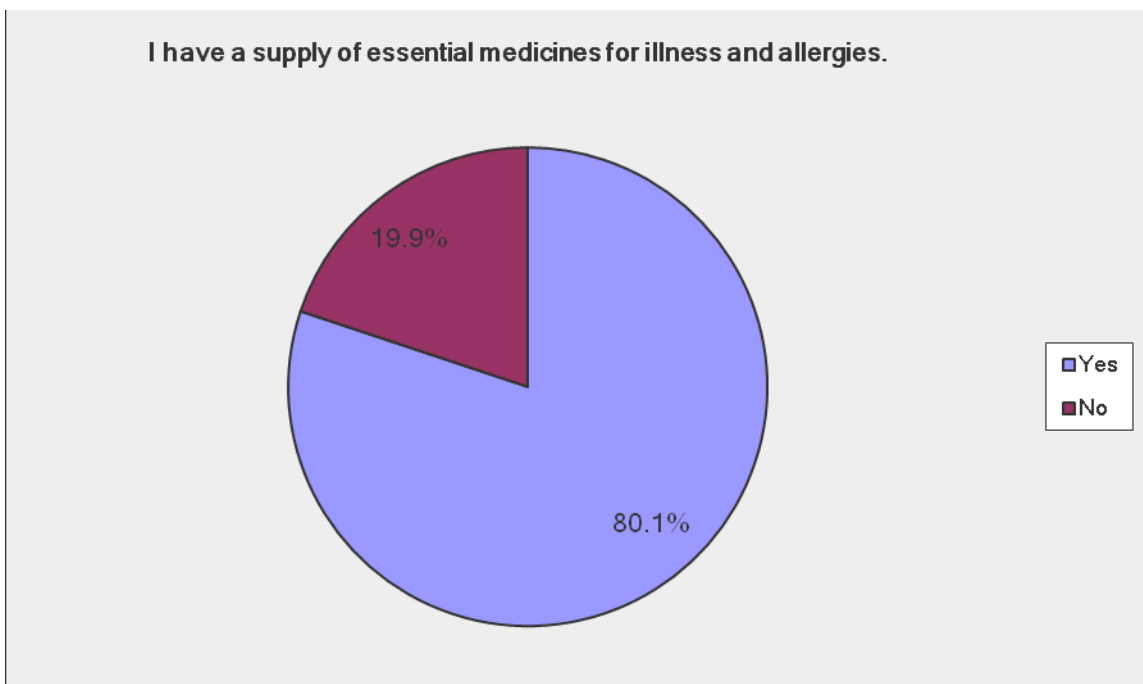


Question 14

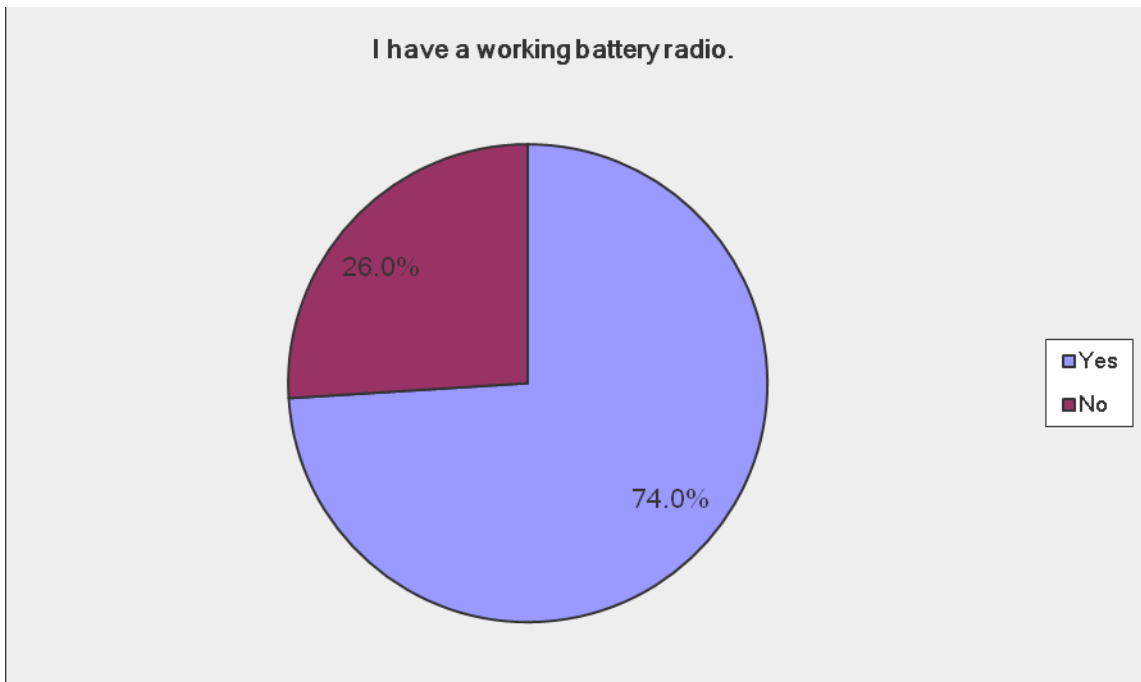




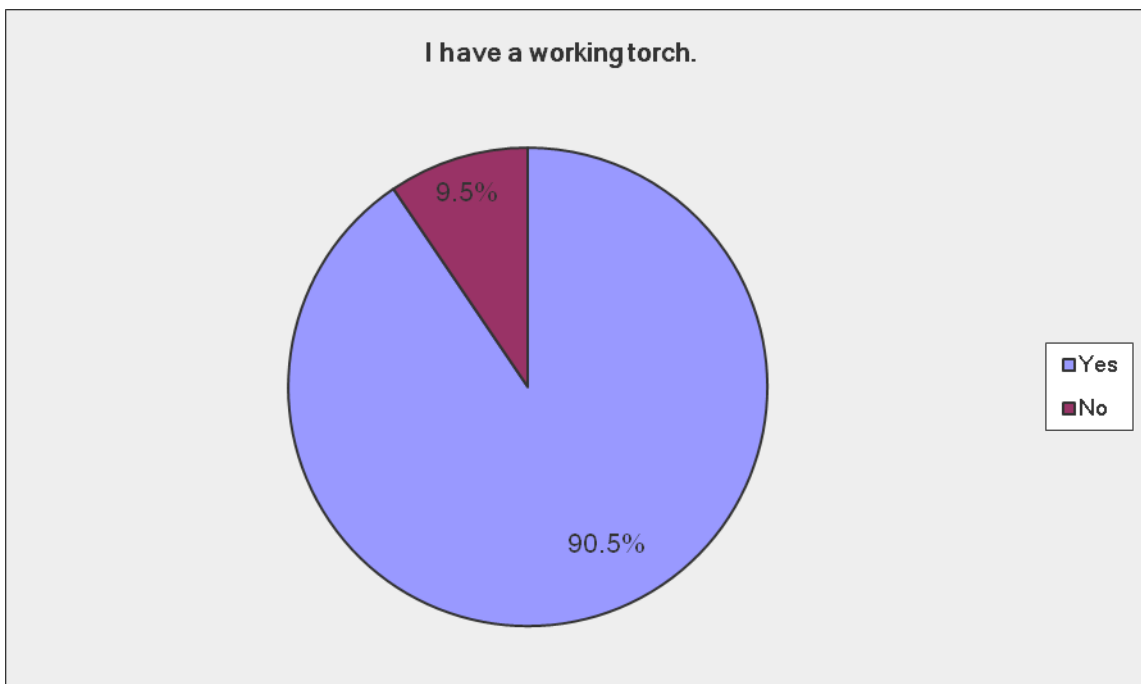
Question 15



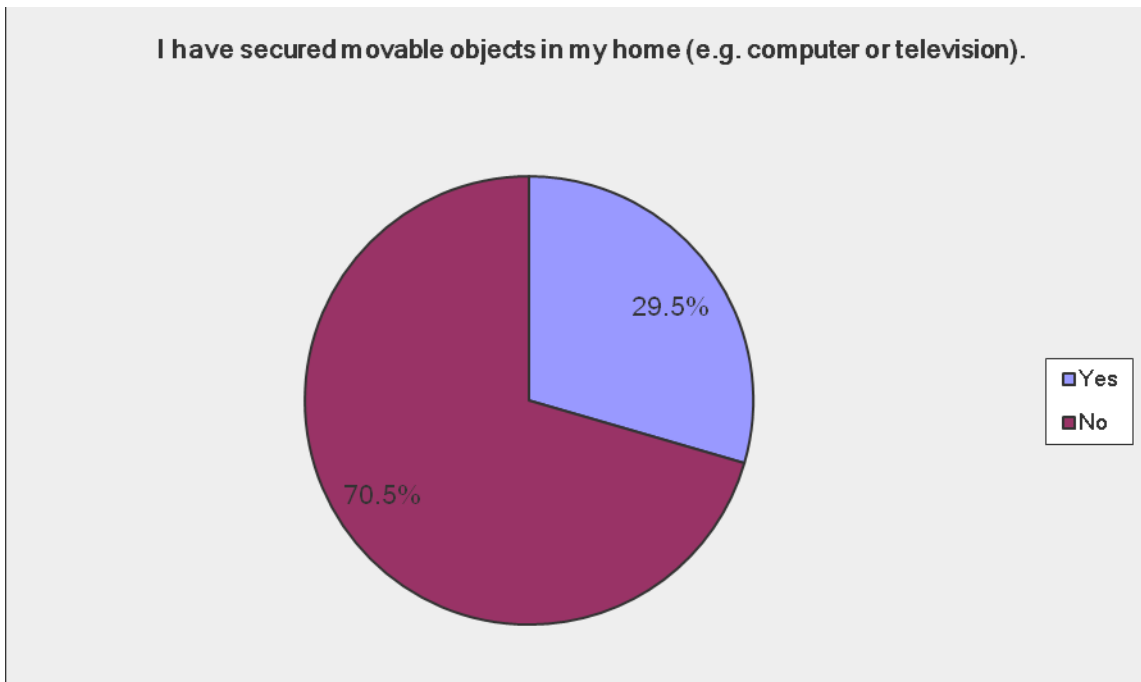
Question 16



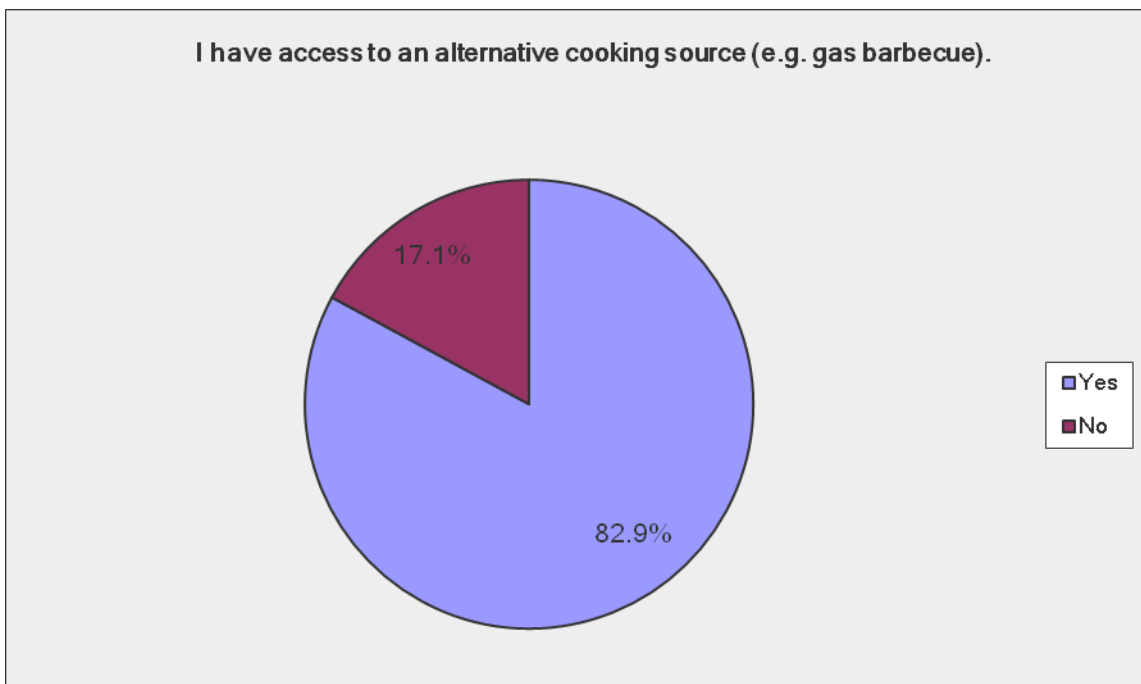
Question 17



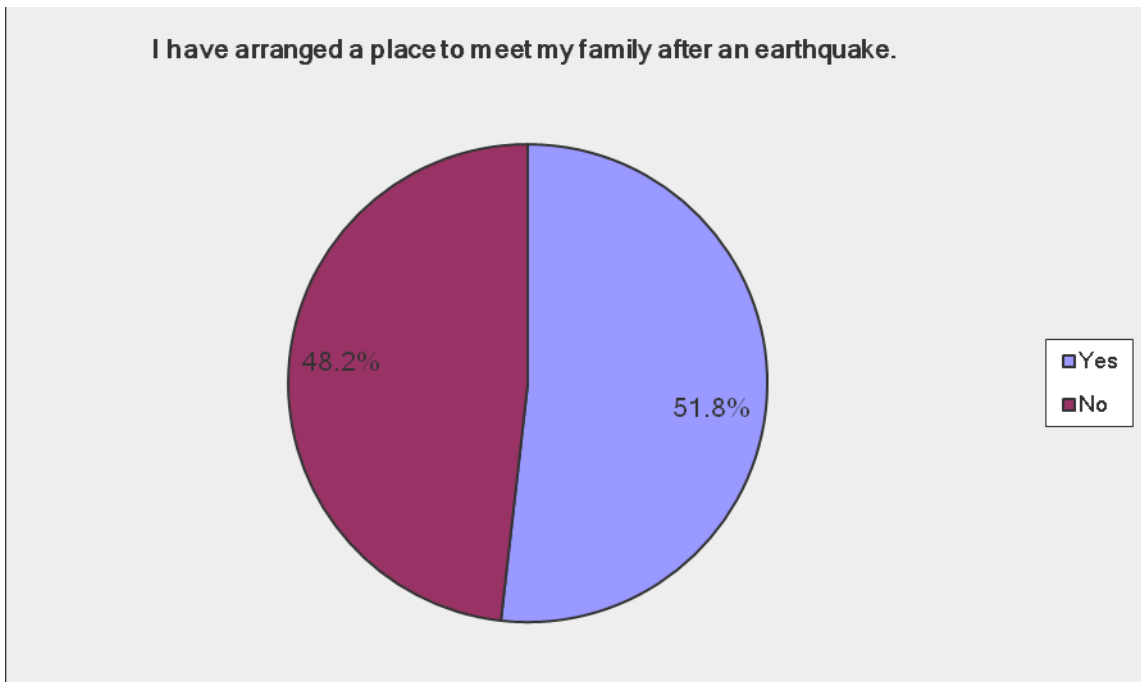
Question 18



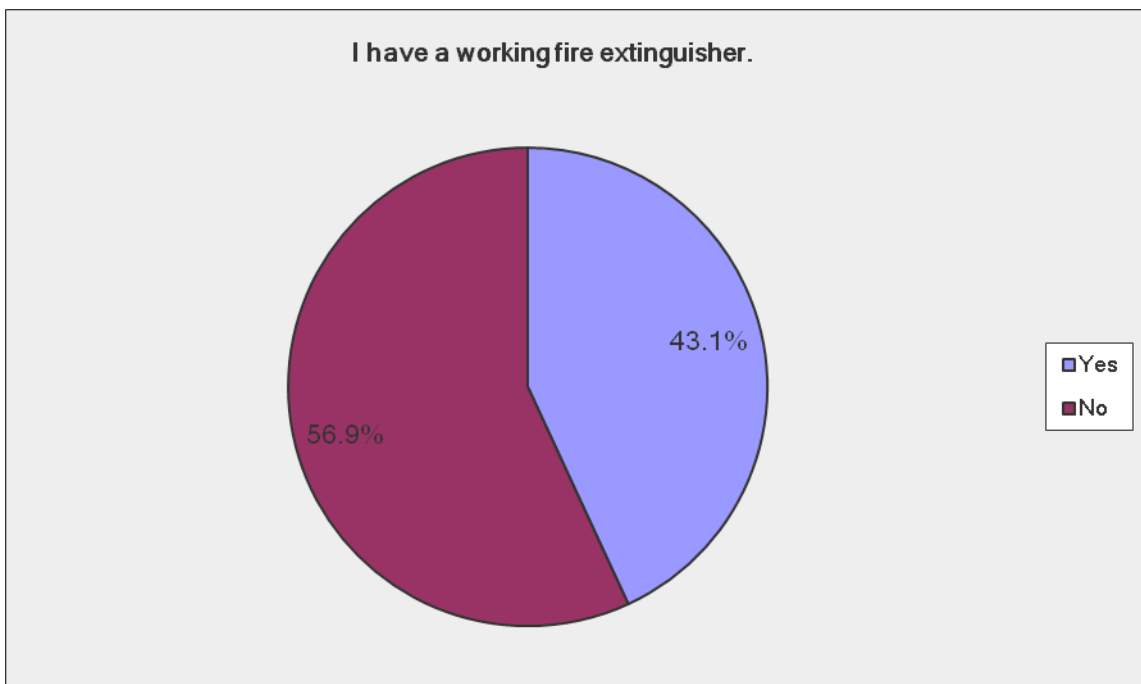
Question 19



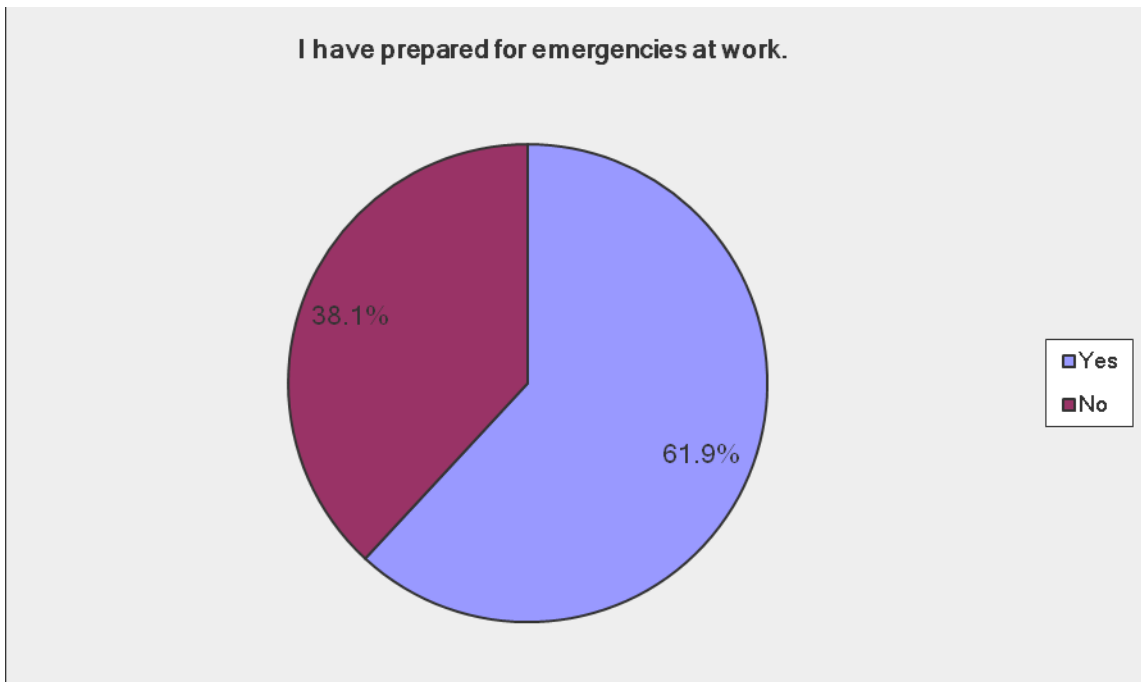
Question 20



Question 21

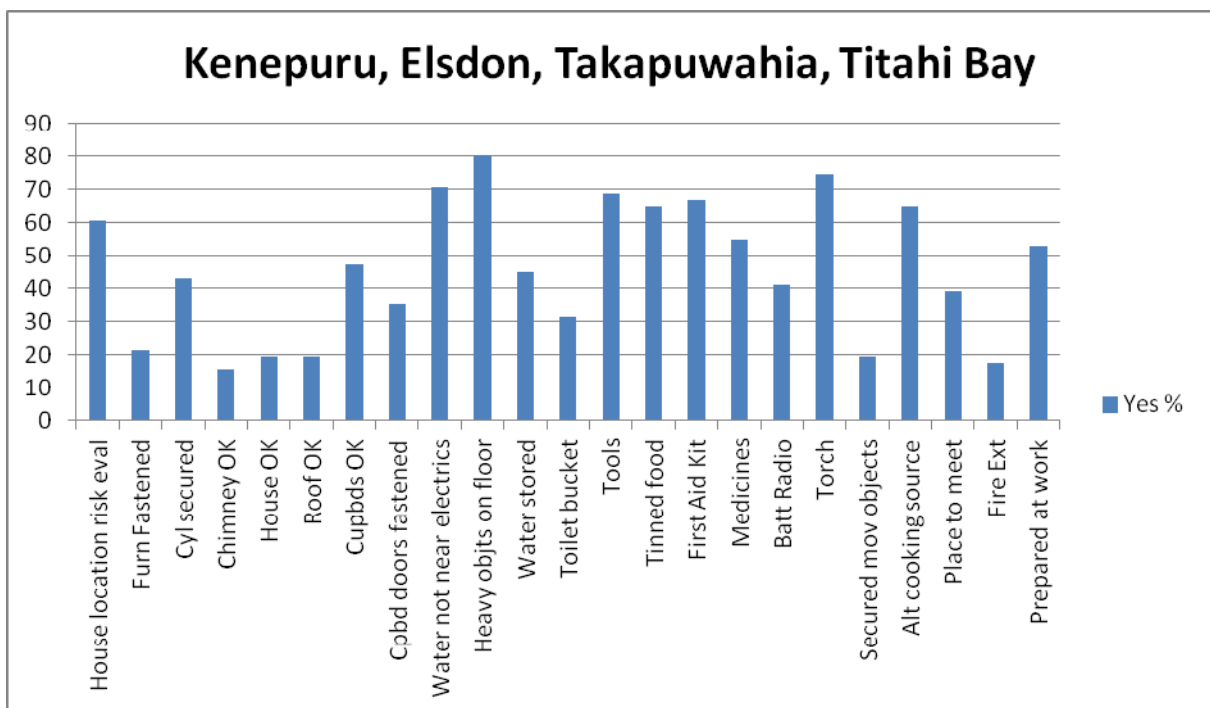
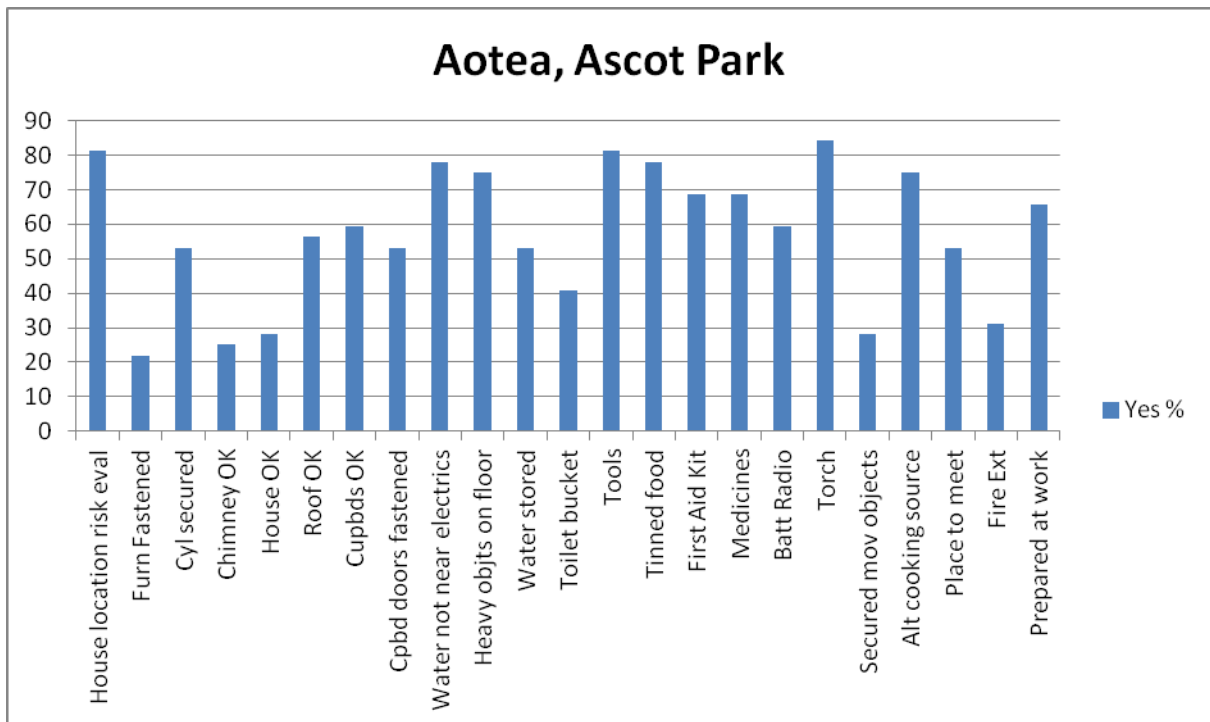


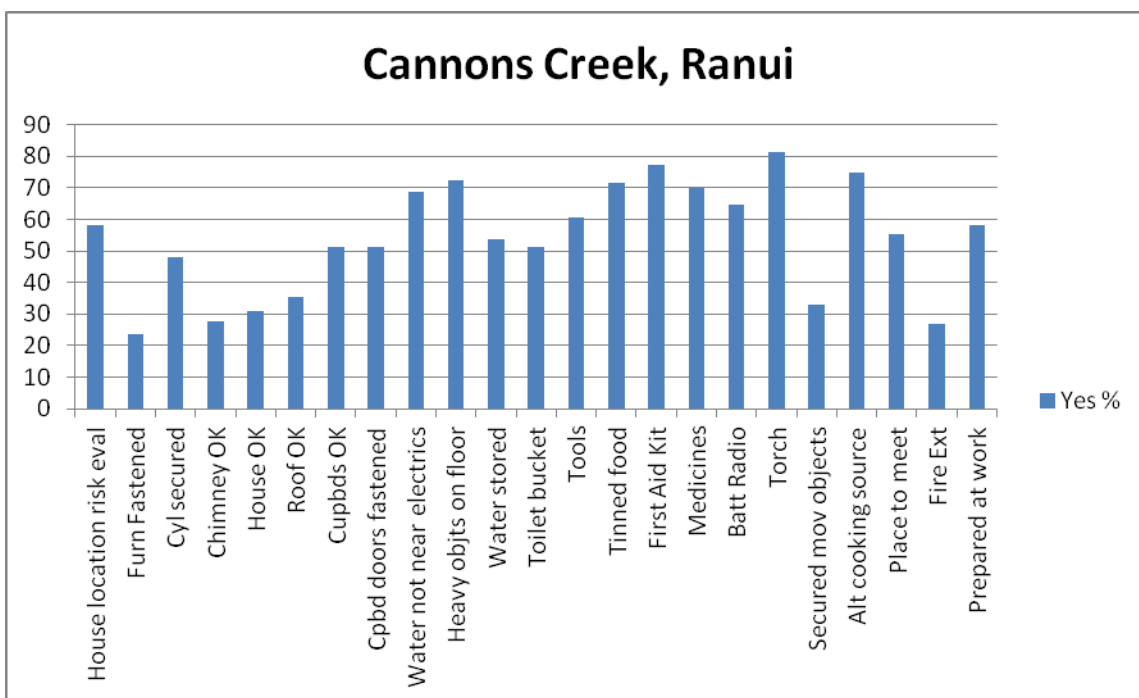
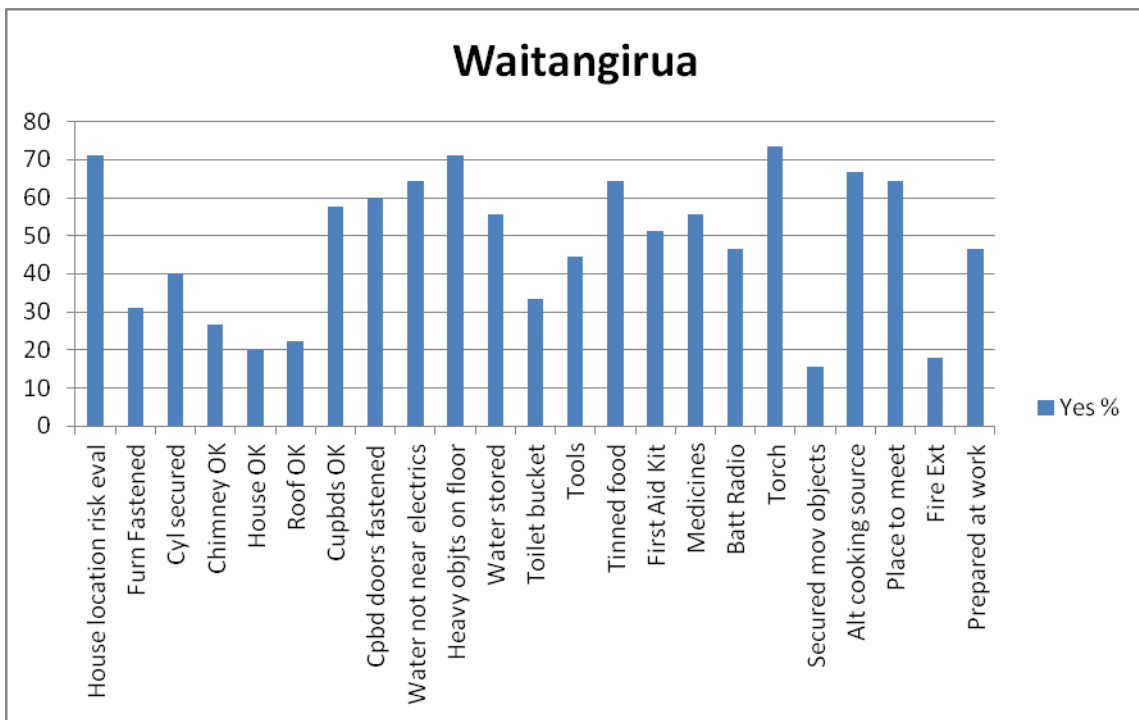
Question 22

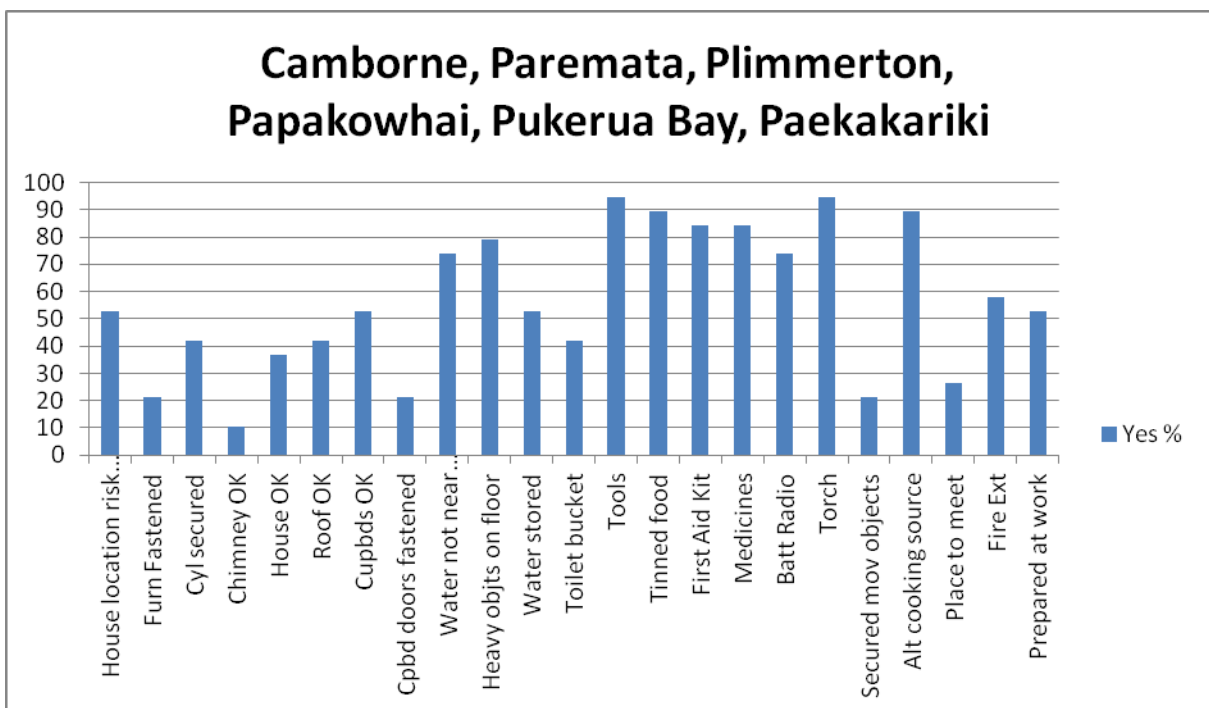
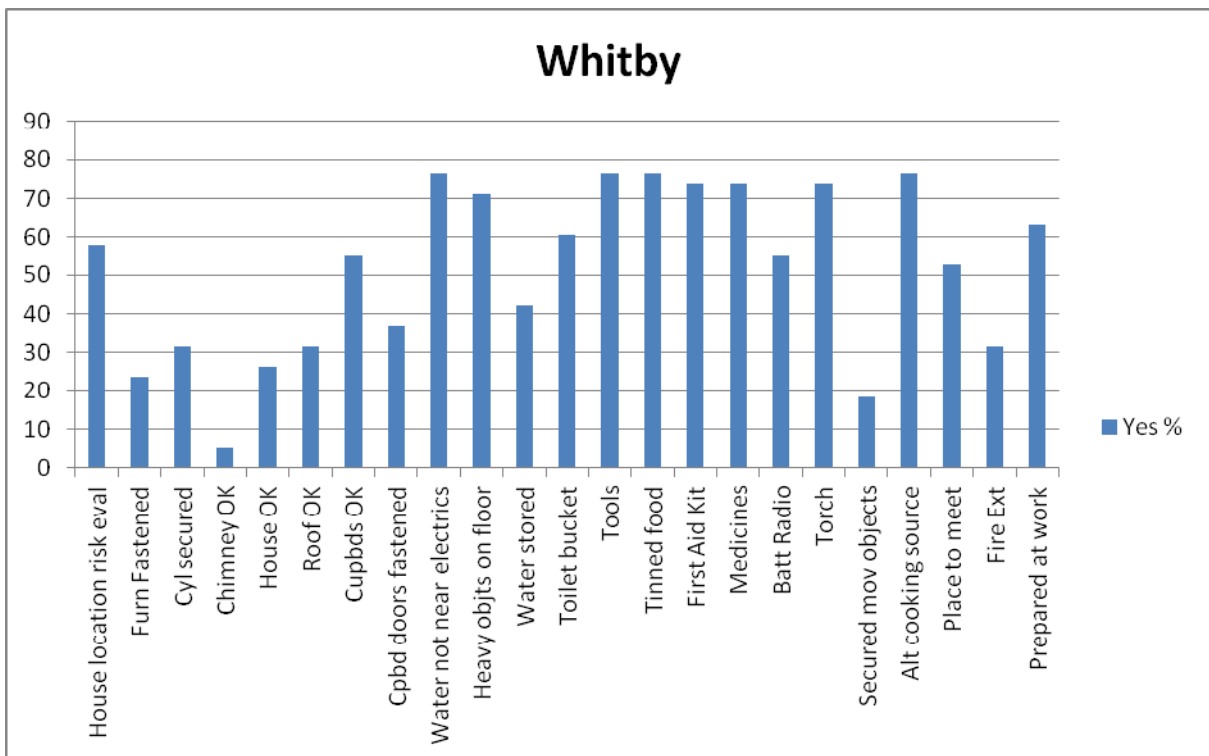


Question 23

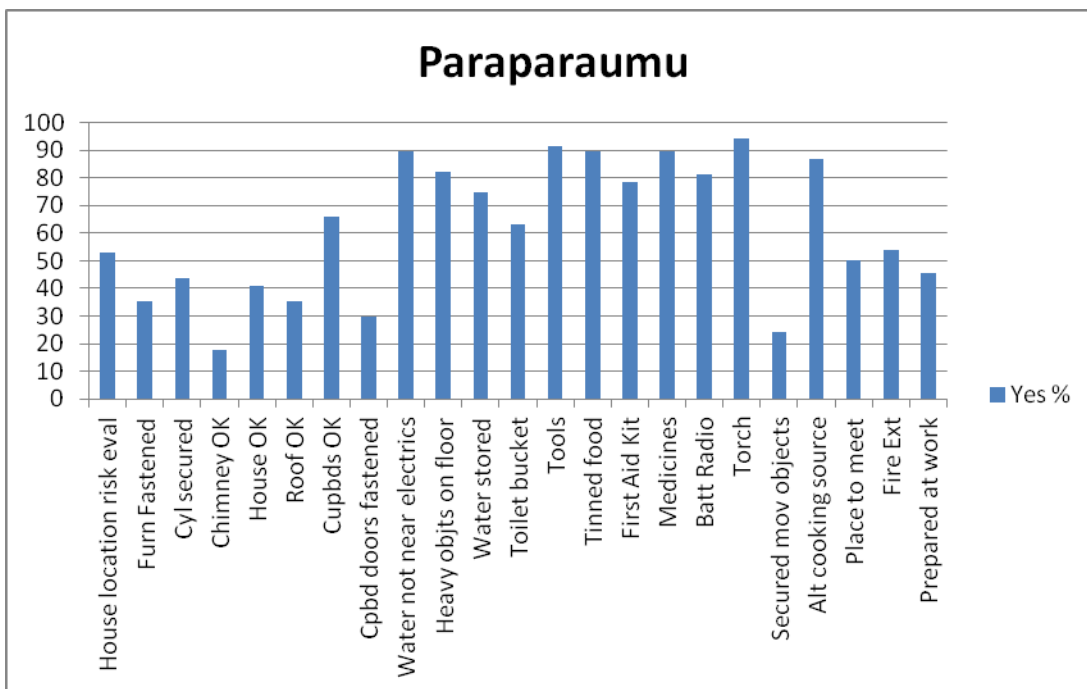
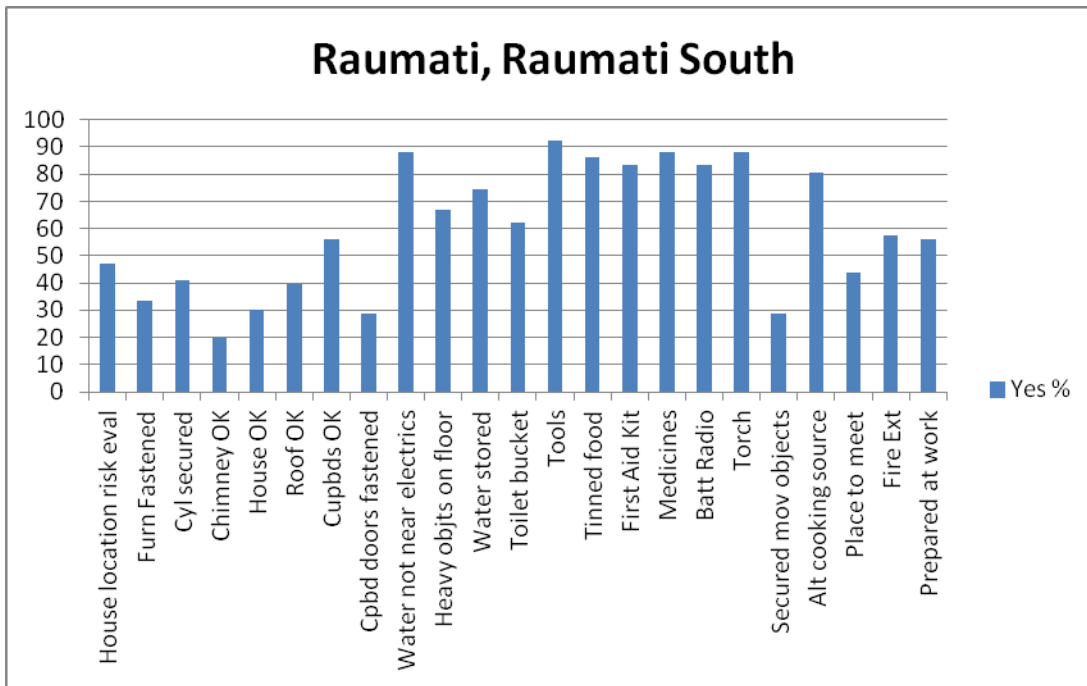
### 8.4 Attachment 4: Summary of results: Grouped by area

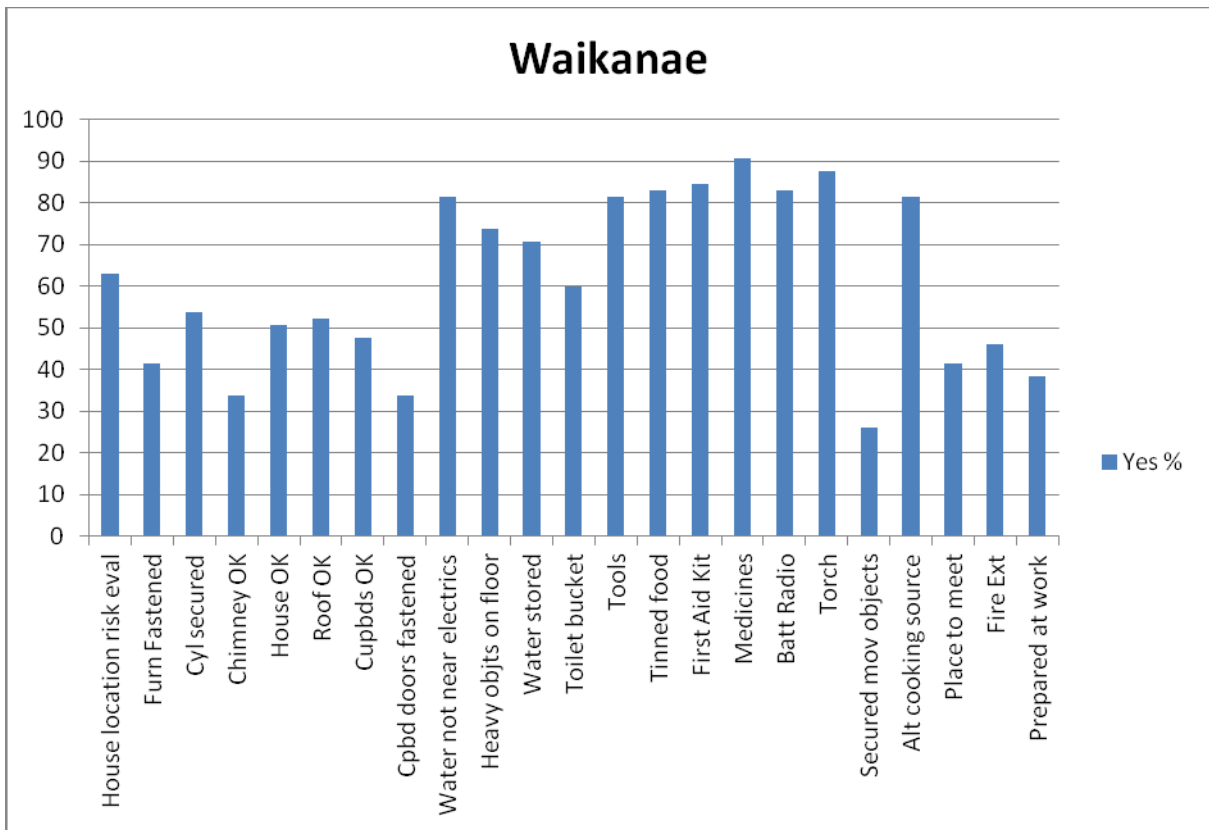


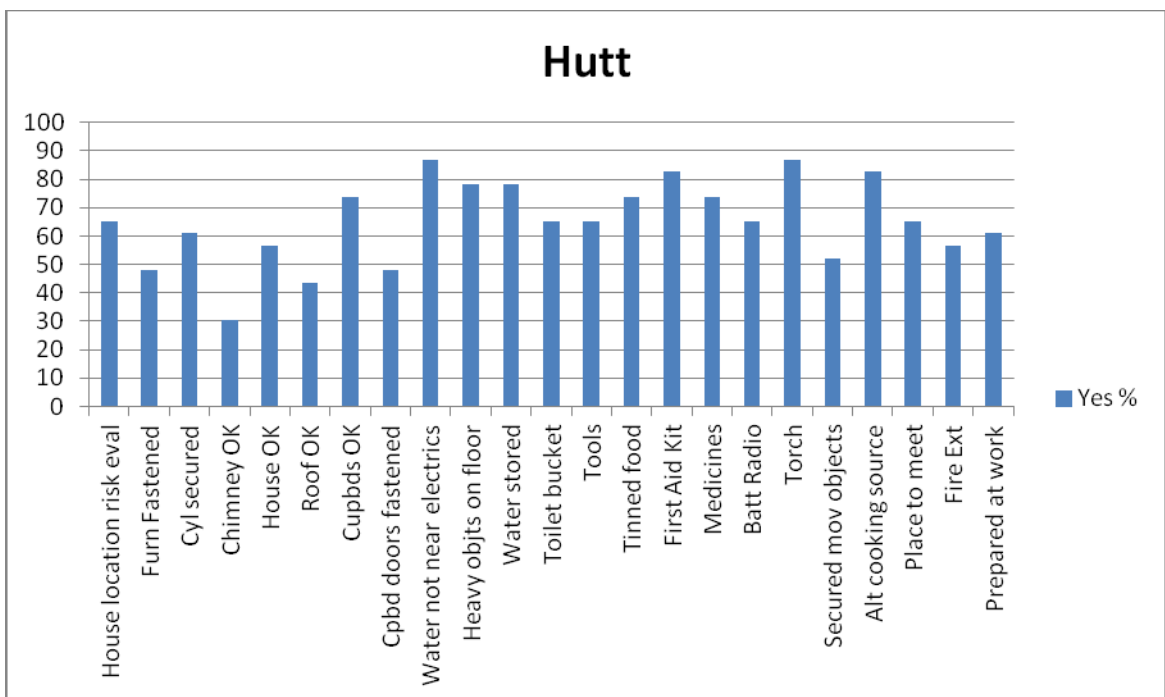
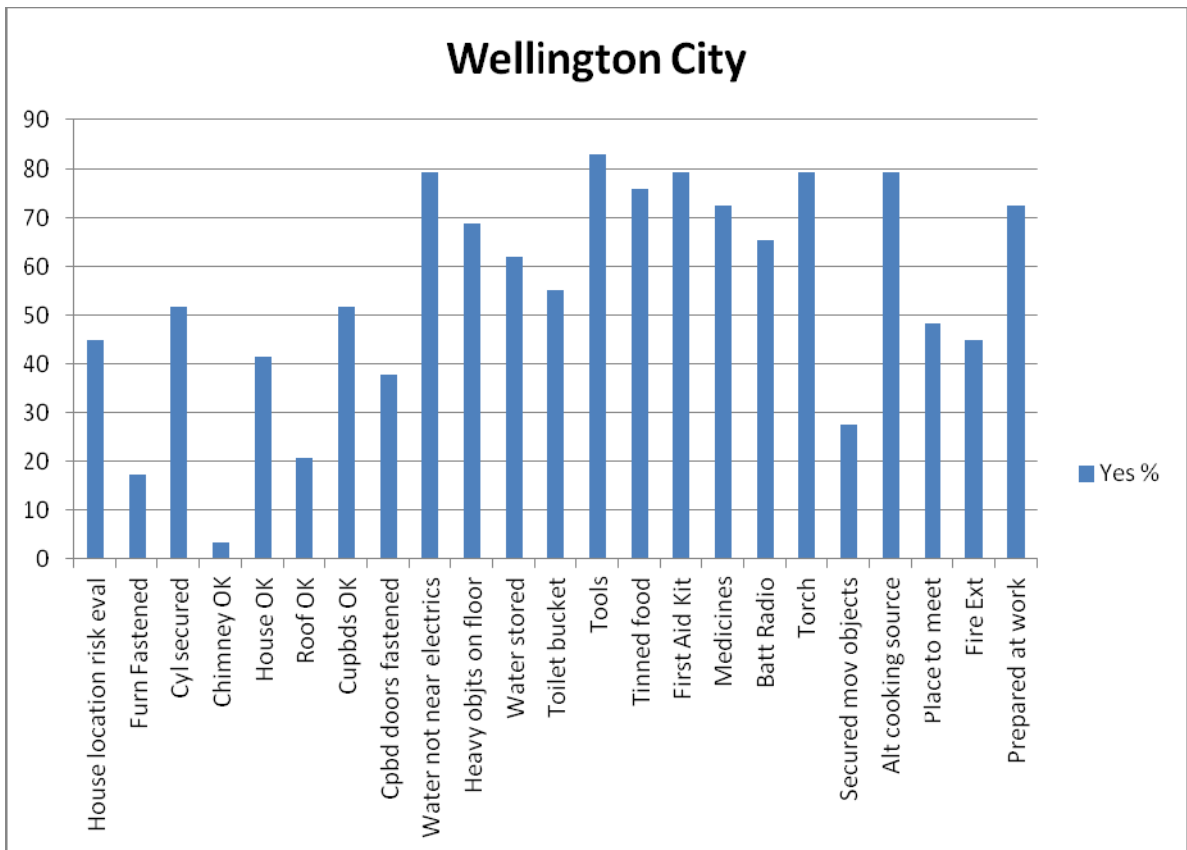


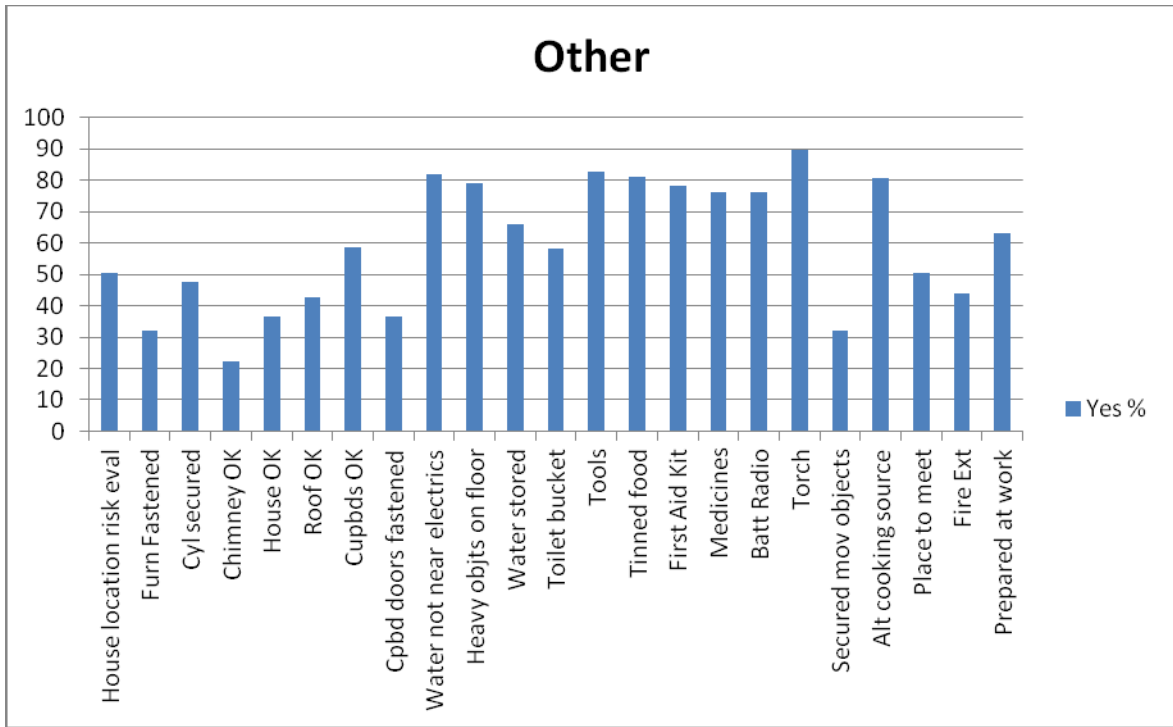












**8.5 Attachment 5: Summary of results: by question (Area in descending order)**

