

Fire Research Report

NZFS Research Among People with Physical and Sensory Disabilities

UMR Research

February 2007

The aim of this research was to explore current fire safety knowledge among people with physical and sensory disabilities, identify gaps in this knowledge and identify barriers that prevent the preparations and actions for a fire incident as recommended by the New Zealand Fire Service.

This study is comprised of qualitative research. This research should be regarded as preliminary only and provides a general overview of some of the issues faced by people with sensory and physical disabilities regarding fire safety and prevention actions.



NZFS Research Among People with Physical and Sensory Disabilities

[A Qualitative Study]

[February 2007]



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1. Introduction

1.1 Objectives

The primary objectives of this study were to explore current fire safety knowledge among people with physical and sensory disabilities, identify gaps in this knowledge and identify barriers that prevent the preparations and actions for a fire incident as recommended by the New Zealand Fire Service (NZFS).

1.2 Research methodology

This study is comprised of qualitative research. Qualitative research is about understanding. It identifies the range of issues involved, allows an assessment of the intensity with which views and attitudes are held, and gives a feeling for the language used.

Quantitative research is required to establish with any certainty the extent to which views and attitudes expressed in the qualitative research are held throughout the wider disability community.

This research should be regarded as preliminary only and provides a general overview of some of the issues faced by people with sensory and physical disabilities regarding fire safety and prevention actions.

A key phase of the research was working with national disability organisations to identify potential respondents for the research among people with physical and sensory disabilities. The support we received from these organisations was critical and we are grateful for the contacts made on our behalf. We are conscious that there are a large number of disability groups and organisations all of which could not be included in the qualitative research.

We are also very appreciative of the support we received from participants in the research. All were very pleased that the New Zealand Fire Service is considering their particular issues with respect to fire safety and prevention and for taking the time to get their input.

1.2.1 Qualitative research

The qualitative research consisted of the following stages:

■ **Stage 1**

➤ ***Six depth face-to-face interviews with representatives from national disability organisations.***

Disability organisations involved with people with sensory and physical disabilities were approached to participate in the research. The primary objective of this approach was to enlist their support in identifying respondents for the main stage of the research. While these organisations did not form the main part of the project they did provide background and direction when developing the question-lines used in the research among people with sensory and physical disabilities.

Participating disability organisations covered physical disabilities, head injuries, blind and sight impaired and deaf and hearing impaired disabilities. They included:

- Royal New Zealand Foundation for the Blind
- Deaf Association of New Zealand
- Association for Spinal Concerns
- CCS
- Head Injury Society of New Zealand Inc
- Multiple Sclerosis Society of New Zealand.

Following interviews with representatives from these organisations, information on the project was disseminated by the organisations to prospective respondents for the second stage of the research. The organisations also helped recruit respondents for the second stage of the research. After discussions with the disability organisations we adjusted the research specifications to better meet the needs of respondents. An official deaf translator was engaged to provide translation services for the research among those with hearing disabilities.

■ **Stage 2**

➤ ***One focus group and three depth face-to-face interviews with main support people; one depth face-to-face interview with an interpreter for the deaf.***

These included:

- 1 x focus group with main support people (Head Injury)
- 1 x main support person (Physical)
- 1 x main support person (Blind/ sight impaired)
- 1 x main support person (Deaf/ hearing impaired)
- 1 x interpreter for the deaf.

- ***Twenty-one depth face-to-face interviews and five mini groups with people with sensory and physical disabilities.***

These included:

- **Physical disabilities**
 - 1 x mini group (Spinal), Auckland
 - 4 x depth interviews (Spinal), Auckland
 - 5 x depth interviews (Multiple Sclerosis), Wellington

 - **Blind / sight impaired disabilities**
 - 1 x mini group, Auckland
 - 3 x depth interviews, Auckland
 - 1 x mini group, Invercargill
 - 2 x depth interviews, Invercargill

 - **Deaf / hearing impaired disabilities**
 - 1 x mini group, Auckland
 - 4 x depth interviews, Auckland
 - 1 x mini group, Napier
- Head injuries disabilities**
- 3 x depth interviews, Invercargill.

1.2.2 Quantitative research

While no quantitative research was undertaken among people with sensory and physical disabilities, UMR has included some findings from UMR's Omnibus survey among the general public in this report. The December Omnibus survey asks questions on level of knowledge and concern about fire safety and prevention. Some indicative comparisons have been made between the general public and participants in the research. Full details of UMR's Omnibus methodology are in Appendix One.

1.3 Reporting

This report focuses on the attitudes and viewpoints of the respondents with physical and sensory disabilities. We have included the findings from the depth interviews with disability organisations to provide background and context.

2. Executive summary

2.1 Fire safety awareness and concern about the incidence of fire

- There are some indications that declared levels of awareness about fire safety and prevention around the home among people with sensory and physical disabilities are lower than the general population, although this should be treated with caution. In the qualitative research we found that awareness ranges from those who know very little (and are also not concerned about fire safety risks) to those who are very aware and take a number of fire safety precautions. Most disability organisations also confirmed this view, with fire safety and prevention not usually top of mind. It is noted that the Deaf Association has lobbied hard regarding fire safety and prevention, resulting in a higher profile of fire safety and prevention among their members.

There is a moderate level of knowledge about fire safety and prevention activities with the range of respondents interviewed taking some action. However, most still had an underlying concern that there is more they could be doing.

- In some cases, the increased vulnerability of disabled people to fire danger around the home appears to have equated with increased awareness and caution, however, this is not universal.
- It also appears that the disabled community seems to be slightly less concerned than the general population about an incidence of fire around the home. Lower levels of concern seem to be driven by a greater focus by disabled people on getting through the day and not really having the time or resources to put into fire safety measures. Also, the perceived rarity of fire means the topic is not top of mind for most.
- There is a strong view that individuals should take personal responsibility for fire safety and prevention actions. This is supported by the goal of maintaining independence. Respondents need the information to make informed choices about what actions they should be taking. The use of smoke alarms seems to be reasonably widespread, along with taking care with electrical appliances. Some respondents also mention planning exit routes and training caregivers.

It is also noted that a number of people are using personal alarms to contact emergency services such as St Johns. Some respondents thought they would be able to contact emergency services through this system if other measures failed.

2.2 Fire safety issues

The most common fire safety issues for disabled persons identified in this research are:

- There is need for advice on developing safe exit routes and assembly points.
- Disabled persons tend to have a large range of electrical equipment, which is used to help improve their quality of life. There are some concerns about the safe storage and use of this electrical equipment.
- Using electrical appliances safely, especially when cooking, is a hazard for a range of disabilities, especially blind / sight impaired and those with head injuries.
- While fire extinguishers are recognised as a safety device, in many cases these are inappropriate for disabled persons and there is low awareness about suitable alternatives, if any.
- Smoke alarms are well-recognised as a fire safety measure. The main issue is with the installation and funding of specialist smoke alarm systems and equipment such as strobe lighting and vibrating pillow alarms. Interest in this specialist equipment was also shown among people with disabilities other than the deaf / hearing impaired.
- In general, it costs more financially for disabled people to have the same quality of life as able-bodied people. There is also a more significant financial cost for disabled people to obtain a similar level of protection against fire as their able-bodied counterparts.
- Communication is difficult for many disabled people and there is some concern about the lack of robust techniques for contacting emergency services efficiently.
- Many in the disabled community are dependent on others for their day-to-day wellbeing and general safety, particularly in an emergency, and this has a significant impact on their ability to be fire safe.

2.3 Increasing fire safety precautions

- Most respondents feel targeted education to increase awareness of fire safety in the home is the key area for focus. Even taking part in this research had increased awareness of the issue for many. There is a strong sense of disabled people wanting to take responsibility for themselves wherever possible.
- Unprompted, most respondents stated that the New Zealand Fire Service would be their first port of call when wanting more information about fire safety. The Internet was the key channel that some would use to access fire safety information. It needs to be noted that, like the general population, access to the Internet is not widespread among disabled persons, some of whom are in lower socio-economic groups.

Specific disability organisations were commonly mentioned as the second place disabled persons would consider approaching for fire safety information. Many were unsure, however, if the disability organisation they belonged to would have easily accessible fire safety information for them.

- Also important in promoting fire safety messages are health professionals working in rehabilitation.
- There is wide spread support for a voluntary database held by the Fire Service or the 111 service, which would provide information on a person's disability and their needs in event of a call-out for fire. Respondents suggested that, with prior knowledge, the Fire Service would be better prepared and they would feel safer.

2.4 Communicating fire safety

- Having people who have an understanding of disability issues and perhaps experiencing a disability themselves may be beneficial to promote the fire safety message among people with disabilities. It is also acknowledged that there is strong support and respect for the Fire Service providing promotional messages as well. One suggestion is to incorporate training in disability issues and communication into regular training for fire service personnel.

The following Fire Service initiatives are suggested by respondents:

- open days at local brigades for people with disabilities
 - promotion of the Fire Service website as a source of information
 - undertaking seminars/ workshops and talks to support groups
 - attending national disability conferences.
-
- It is very clear that a two-pronged communication approach is required to promote fire safety messages to people with sensory and physical disabilities to reach both those who are involved with a disability organisation and those who are not so involved or not in touch at all.
 - Disability organisations using their own communications channels are a good way to get the message out to their members. Members are also more likely to trust information received from their own organisation.
 - Some of the suggestions include:
 - promotional booklet containing tips and advice using a communication channel appropriate for their particular disability
 - having a programme on the TV One Disability programme
 - ensuring messages use the communication channels appropriate for deaf and blind people, e.g. sign language, visual, audio and large print.
 - To reach those who are not associated with disability organisations more reliance on main stream messages is required. To reach these people it is important that current mainstream messages be understood by those with sensory disabilities. While respondents are not in favour of targeted campaigns, there is an opportunity for modifying some campaigns to include those with disabilities. Using techniques such as sign language translations, word captions and highly visual campaigns for the deaf and messages incorporated into music and verbal messages for the blind are suggested.

3. Key suggestions

RAISING AWARENESS AND COMMUNICATING FIRE SAFETY

Targeted channels

- Continue to build on the solid reputation and profile of the New Zealand Fire Service among the disabled community by:
 - ✓ Educating firefighters on how to communicate effectively with disabled people
 - ✓ Where possible, installing smoke alarms
 - ✓ Considering household checks where fire risks are identified and advice provided
 - ✓ Attending and participating in disability events such as conferences, sports days, seminars, workshops and meetings at both national and local levels.
- Meet and develop social networks with key disabled organisations, who are both a useful source of advice and channel for communicating messages. As a start key organisations identified in this research were:
 - Royal New Zealand Foundation of the Blind (RNZFB)
 - Deaf Association of New Zealand
 - Head Injury Society of New Zealand Inc
 - Multiple Sclerosis Society of New Zealand
 - The Association for Spinal Concerns
 - CCS (previously New Zealand Crippled Children's Society).
- Where possible use the existing communication channels of these main organisations to spread fire safety messages among the disability community. Examples of channels include:
 - Talking books and audio magazines – these often include short advertisements (blind)
 - Telephone Information Service (TIS) for accessing public information in audio (blind)
 - regular newsletters (all groups)
 - rehabilitation days (particularly spinal injuries).
- Consider producing a DVD for the deaf community (using sign language). This has already been successfully done by the Electoral Commission, and/ or a video clip using sign language* on the NZFS website.

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RAISING AWARENESS AND COMMUNICATING FIRE SAFETY (Cont.)

- Consider communicating through professionals who have regular contact with disabled people, such as occupational therapists, physiotherapists and sign language interpreters.

Mainstream channels**

- Creatively including messages to the disabled community in mainstream fire safety messages, including television advertising, by:
 - Considering campaigns that show a range of New Zealanders including disabled people
 - Ensuring advertisements have both good visuals (for deaf) and good voiceovers (for blind).
- Prompting friends and family of disabled persons to think about the fire safety of disabled people they know or are related to.

* Levels of literacy are quite low among the deaf community. Also deaf language is quite different to English and many are unable to understand written English.

** It is important to include messages to disabled in mainstream messages as non-members of these organisations will be left out.

EMERGENCY COMMUNICAITON

- Consider using text messaging for emergency communication, however, there are some concerns about the reliability of text messages.
- Consider loading the type of disability a householder has on to the 111 emergency database so emergency services are better informed on arrival.
- If fax and TTY*** are the main channels of emergency contact for deaf and speech impaired people, consider promoting the reliability of this channel.

*** The text telephone (TTY) is a device that lets people who are hard of hearing, deaf or speech-impaired communicate by typing messages back and forth to one another, rather than using an assistant to relay the messages. A TTY combines a telephone handset (which is set onto special acoustic cups), a keyboard and a text display. Messages typed using the keyboard are sent over the telephone line (not the internet) and appear on the text display of the person called. A TTY is required at both ends of the conversation.

4. National disability organisations

4.1 Introduction

A key part of the research was to work with national organisations supporting people with physical and sensory disabilities to better understand the issues regarding fire safety and prevention. We also sought their support to locate respondents for the second stage of the research. The following section outlines the findings from six depth interviews with representatives from these organisations.

4.2 Fire safety and prevention

Fire safety and prevention is not usually top of mind for major national organisations working with people with physical and sensory disabilities. It is usually only one consideration among many. The situation is slightly different where individuals have experienced house fires or know of individuals who have had such experiences. There are also instances where former firefighters now have physical or sensory disabilities and their awareness is heightened because of their previous role.

➤ *Blind and low vision New Zealanders*

According to the Royal New Zealand Foundation of the Blind (RNZFB), fire safety and prevention would be covered by their Orientation and Mobility instructors and others working in the Adaptive Living Division. This division works with blind and low vision New Zealanders to develop skills and techniques for life within the community. This includes discussions about exit routes out of their homes (and workplaces where relevant) and other issues about fire safety, such as using the stove and other appliances. Fire safety may also be a consideration for their Training, Education and Advocacy Division.

➤ *Deaf and hearing impaired New Zealanders*

The Deaf Association of New Zealand provides information and advice to its members and clients about many issues and areas of life including fire safety and prevention. This information might relate directly to concerns about fire safety, fire safety equipment, accessing the emergency 111 number and, more generally, as part of community education.

They see themselves as having a role in identifying the need for equipment, understanding the benefits of the different equipment that is available and developing fire safety strategies with the NZFS. The Association has worked with the Fire Service in some regions (e.g. Bay of Plenty and Hawkes Bay) to raise awareness among its members. Local fire services have been involved in workshops and other sessions and have also installed smoke alarms (vibrating pillow pads) and strobe lights for individuals within the deaf community.

➤ ***People with physical disabilities***

The Association for Spinal Concerns (TASC) and CCS currently have little or no direct role in relation to fire safety and prevention. TASC can see how fire safety and prevention could be a part of their “Back on Track” programme of workshops for people with spinal injuries. There was keen interest in the research from former firefighters who have spinal injuries. CCS is more concerned with community living than fire safety and prevention specifically.

➤ ***Multiple Sclerosis***

The Multiple Sclerosis Society provides information and support to its members but this does not usually include information on fire safety and prevention. Field officers will undertake needs assessments of clients and it may be during this process that risk factors such as fire safety are identified. At this stage the field officer will encourage clients to install medical alarms and also smoke alarms.

➤ ***Head Injury Society***

The Head Injury Society does not specifically include fire safety and prevention in any of their information or support services to members. Those with cognitive impairment due to their head injury are seen to be most at risk. The Head Injury Society has a strong communications network and could envisage providing information on fire safety and prevention to members through this network and also through their field officers.

4.2.1 Profile

One issue about the profile of fire safety and prevention is organisations’ concern about frightening their members and causing them to have unnecessary anxiety or stress. They want to find the right balance between raising awareness and going overboard. Also, for many members of disability organisations, the main priorities are maintaining independence and undertaking the daily tasks of living.

➤ ***Blind and low vision New Zealanders***

The RNZFB believe fire safety and prevention has a medium profile within their organisation. If a member contacts them with an issue relating to fire safety this would be treated as a priority and they would be contacted by a service co-ordinator and, depending on their need, invited to have an adaptive daily living assessment to discuss their issue and develop a solution. As one of a raft of considerations this is seen as the right level.

➤ ***Deaf and hearing impaired New Zealanders***

The Association believes fire safety and prevention has a high profile in its organisation. They have “lobbed hard” to improve access to 111 and the emergency services and continue to work in this area. They know about the equipment that is on the market (e.g. strobe lights, vibrating pillow pads).

➤ ***People with physical disabilities/ Multiple Sclerosis***

TASC, CCS and the MS Society acknowledged that fire safety and prevention had a low profile within their organisations and for their members and constituents. They are more concerned with enabling people to live day-to-day than being prepared for an emergency.

➤ ***Head Injury Society***

Like the other disability organisations, fire safety and prevention has a low priority within the Head Injury Society, as their focus is mainly on rehabilitation support and outcomes. For many of their clients there are more pressing issues that need addressing, such as managing from day-to-day.

4.2.2 Key issues

➤ ***Blind and low vision New Zealanders***

The key issues faced by blind and low vision New Zealanders concern exit routes (at home, in the community and in their workplaces) that enable them to get out safely in the event of a fire and using appliances such as stoves. RNZFB noted it was particularly difficult for deaf-blind members because they could not hear smoke alarms. An associated issue for members of the RNZFB is changing the batteries in smoke detectors because of their location on the ceiling.

In terms of appliances, using the stove is seen as the greatest risk. There is particular concern where members have older stoves that include electrical plugs for other appliances. This can result in cords being near elements and increases the risk of fire.

The RNZFB noted there is also an age factor that may prevent members from using exit routes. Most of the Foundation's members are over 65 years old.

➤ ***Deaf and hearing impaired New Zealanders***

The Deaf Association of New Zealand identified a number of key issues for their clients and members:

- Where and how to access equipment – options include smoke detectors and vibrating pillow pads, strobe lights, baby alarm systems and pagers.
- Funding – equipment can be costly and funding hard to find. Cheaper equipment may mean that a smoke detector is located by the bedroom door because of the length of the lead to the pillow pad rather than sensor-based, more expensive equipment.
- Lack of awareness and inaccessible information – for example, written information that is complex and hard to understand, television advertisements with no captions for deaf people.
- Accessing the emergency services in the event of a fire. The Association tests response times for the 0800 emergency fax number every week; response range from 4-10 minutes. However, phone lines may be damaged by fire so alternatives are required. They are concerned that 4% of text messages fail to get through.

➤ ***People with physical disabilities/ Multiple Sclerosis***

Key issues for people with physical disabilities include:

- Exit routes – some District Health Boards are now “refusing” to put in a second ramp at people’s homes. This means they may only have one exit route, which could be unusable depending on the location of the fire.
- Caregivers getting people out of the house – there is the potential for injury to the caregiver and the person with physical disability. Linked to this is the wider issue of the fire safety and prevention knowledge of caregivers and their skills and training in dealing with such an emergency.
- Rural living – the time factor for services reaching individuals living in rural areas. For example, a quadriplegic living on their own in a rural area may be unable to get out of their house and the speed of response of the fire service could be crucial.
- Equipment
 - people not having smoke alarms
 - ability to maintain smoke alarms
 - cost of smoke alarms and remote door openers etc.

➤ ***Head Injury Society***

- Lack of awareness
 - little understanding of the issues and dangers those with disabilities may face in the event of a fire.
 - low awareness of what support is available on fire safety and prevention that can be provided by the Fire Service etc.
- Loss of cognitive ability (personality changes, memory loss).

4.3 Fire safety knowledge

4.3.1 Knowledge

➤ *Blind and low vision New Zealanders*

The RNZFB believe members have a reasonable knowledge of fire safety and prevention. They suggest it will be better than the knowledge of the wider population because members have a sensory disability that heightens their awareness of safety issues.

➤ *Deaf and hearing impaired New Zealanders*

The Deaf Association feels its clients and members have relatively poor knowledge of fire safety and prevention outside regions where they have worked with the fire service. This lack of awareness is fuelled by poor access to information and a lack of exposure to media messages about fire safety and prevention.

➤ *People with physical disabilities/ Multiple Sclerosis*

Both TASC and CCS indicated members' knowledge of fire safety and prevention would be very low unless they had personal experience of a fire incident. This would be because people were concerned with coping and managing day-to-day living rather than considering emergencies.

The MS Society thought members' knowledge and awareness would be moderate, with some members very aware while others would have low awareness.

➤ *Head Injury Society*

The Head Injury Society considered members would have awareness similar to the wider community.

4.3.2 Concern

➤ *Blind and low vision New Zealanders*

RNZFB feel fire incidents at home are of some concern to members but at the back of their mind rather than being a top of mind issue. They are aware of occasional incidents such as microwaves "blowing up", tea towels catching fire and pots boiling over. Age may also be a factor in some of these incidents rather than them being exclusively vision related, for example, forgetting that a saucepan is on.

➤ *Deaf and hearing impaired New Zealanders*

In regions where awareness of fire safety and prevention has been raised deaf people have become very concerned about fire safety and prevention. Many now consider exit routes and have installed smoke alarms and other equipment.

➤ ***People with physical disabilities/ Multiple Sclerosis***

TASC, CCS and the MS Society did not think members would be very concerned about the risk of fire incidents at home, unless they had experienced such an incident or knew someone who had been affected by a fire incident.

➤ ***Head Injury Society***

The Head Injury Society reiterated that, while fire safety should be a concern especially for those with a cognitive impairment, most would be more concerned with day-to-day living.

4.3.3 Information sources

➤ ***Blind and low vision New Zealanders***

Key information sources include:

- Radio
- Television
- Other agencies, e.g. Age Concern
- RNZFB staff, e.g. instructors and service co-ordinators.

Print was not viewed as a good medium for low vision New Zealanders.

The Foundation has references to fire safety and prevention in some of its own material.

➤ ***Deaf and hearing impaired New Zealanders***

As mentioned, the Association has concerns about the provision of fire safety and prevention information to their members. Sources include:

- The Deaf Association of New Zealand – head office and branches
- Television – but there need to be captions
- Newspapers and magazines.

The Association has references to fire safety and prevention in some of its own material.

➤ ***People with physical disabilities/ Multiple Sclerosis***

Information sources include:

- Radio
- Television
- Yellow pages
- Friends and family
- Field Officers.

➤ **Head Injury Society**

Information sources include:

- Society newsletter
- General media targeted at the wider community
- Field Officers
- Main support people.

TASC, CCS, MS Society and the Head Injury Society had no material relating to fire safety and prevention.

4.4 Actions and barriers

4.4.1 Actions

➤ **Blind and low vision New Zealanders**

RNZFB instructors and service co-ordinators encourage members to take extra care around the kitchen and be consistent in switching off electrical points. Some members do not cook on the stovetop because of the risks. They rely on Meals on Wheels, microwave food or frozen meals that can be cooked in the oven or microwave.

Exit routes are less of an issue because members know their homes “really well”. There are questions, however, when people move house or are outside their homes, in workplaces or in the community.

➤ **Deaf and hearing impaired New Zealanders**

The Deaf Association of New Zealand is aware of members purchasing equipment and planning exit routes. In some regions they have worked with the fire service to raise awareness and encourage people to consider fire safety and prevention issues and take action.

➤ **People with physical disabilities/ Multiple Sclerosis**

TASC and CCS both believe some of their members have planned exit routes from their homes, smoke alarms and fire extinguishers. They have no data on the numbers who may have done all of these things and those who have no concept of fire safety and prevention measure. The MS Society thought their members would have taken very little action, if any.

➤ **Head Injury Society**

It was noted that the Invercargill Licensing Trust had sponsored free smoke alarms for households that had heightened awareness among the general community. It was thought there would be low level actions, similar to the wider public.

4.4.2 Barriers and solutions

➤ *Blind and low vision New Zealanders*

The main barriers for RNZFB members were perceived as knowledge and finances.

To overcome the knowledge barrier, RNZFB saw the potential for networking with the NZFS. If they worked more closely together the Foundation's knowledge would improve and this could be passed on to their members. There are existing forums where all staff working on orientation, mobility and adaptive daily living are present and this might be an opportunity for a presentation from the NZFS on fire safety and prevention.

In considering finances, the interviewee was aware that in West Auckland the local fire service had installed smoke alarms and changed batteries for people. They would welcome the opportunity to offer this service to their members, particularly their older members.

➤ *Deaf and hearing impaired New Zealanders*

The main barriers for Deaf Association members and clients are access to equipment, finances and access to information.

To overcome the equipment barrier, the Association suggests the NZFS should test and rate the equipment that is available. They would also welcome support in persuading Enable to fund smoke alarms and strobe lights for people's homes. In the Bay of Plenty the Association has applied to charities for funding for equipment.

Their solution for information issues would be for the NZFS to produce a DVD on fire safety and prevention that included captions and had a section in New Zealand Sign Language (NZSL).

➤ *People with physical disabilities/ Multiple Sclerosis/ Head Injury Society*

The main perceived barrier for these organisations' members is lack of awareness. One other barrier mentioned was in terms of economic survival and that this takes precedence over thinking about fire safety prevention. They believe there needs to be a programme of awareness raising for their members.

This could include:

- NZFS involvement in existing events and workshops, followed up by the provision of written information or a video
- Regular information about fire safety and prevention included in newsletters, either feature articles or tips on what to do or avoid
- Working more closely with health professionals to help educate people about their abilities and what they can safely do while living independently in the community
- Development of fire safety prevention actions that are appropriate for people with disabilities e.g. installing smoke alarms will not help if the person cannot physically evacuate on their own.

It was also noted that some disability organisations conduct needs assessments of their members and it was thought that the Fire Service could work with those individuals identified as at most risk. Some education could be conducted with needs assessors to ascertain whether they ever flag 'at risk of fire' in their assessments.

4.5 Raising awareness

Any awareness raising activities will need to acknowledge that there are a range of impairments even within one disability. For example, those with multiple sclerosis have disabilities that range from minimal physical and cognitive impairment to very debilitating physical and cognitive impairment. Those with head injuries also have a range of impairments, with some people able to operate self sufficiently while others have significant cognitive impairment, memory loss and loss of concentration.

➤ ***Blind and low vision New Zealanders***

"Outlook" magazine is produced by the RNZFB and is available in Braille, on cassettes and on the Internet. Almost all members receive the magazine and it could be an ideal vehicle for a feature on fire safety.

Thinking more generally, RNZFB suggested good radio coverage of fire safety and prevention was important. They also felt NZFS could be in contact with consumer groups such as the Association of Blind Citizens to ensure the widest possible reach for messages about fire safety and prevention.

➤ ***Deaf and hearing impaired New Zealanders***

The Deaf Association suggested that public demonstrations of fire safety and prevention practices would raise awareness throughout the deaf community. They thought the NZFS could come to a community evening and talk to members about fire safety and prevention and this could be followed up by the DVD and/ or other information and tips.

➤ ***People with physical disabilities/ Multiple Sclerosis***

These organisations felt it would be important to raise awareness, then talk about the need for equipment and then follow up any interest. They welcomed NZFS input in awareness raising.

5. Fire safety awareness and level of concern among people with physical and sensory disabilities

5.1 Awareness

Respondents were asked to rate their fire safety knowledge and awareness on a 0 to 10 scale, where 0 meant you knew very little and 10 meant you knew a great deal. We found that safety knowledge was mixed, with some respondents declaring a high awareness of fire safety and prevention.

Very few felt they had a low level of awareness, with the majority taking the middle ground and selecting ratings in the 4-6 category. Around a third considered they knew a great deal (7-10).

While not strictly comparable due to the differing methodologies, there are indications that the disabled community are not as confident as the general public in their levels of knowledge of fire safety and prevention around the home.

In UMR's omnibus survey among the general public, 76% declared they knew a great deal (7-10) on the 10 point scale and 20% were more neutral (4-6). 3% selected 3 or less on the same scale.

KNOWLEDGE OF FIRE SAFETY AND PREVENTION WITHIN THE HOME	
<i>On a scale of 0 to 10 where 0 means know very little and 10 means you know a great deal, how much would you say you know about fire safety and prevention within the home?</i>	
	General Public
	DEC 06
	%
0 – Very little	1
1	0
2	0
3	2
TOTAL LITTLE (0-3)	3
4	2
5	9
6	9
TOTAL NEUTRAL (4-6)	20
7	18
8	28
9	13
10 – Know a great deal	17
TOTAL KNOW (7-10)	76
Unsure	1
N=750	

➤ **Low awareness of fire safety and prevention**

Those few respondents who rated their awareness low noted that they did very little in the way of fire safety and prevention. These respondents acknowledged their understanding of fire safety and prevention was limited and that they also lacked information.

[On a scale of 0 to 10 how much would you say you know about fire safety and prevention in your home?] *I suppose I've got all the smoke alarms in but apart from that I'd say about 3. [Not that much really?] No. Haven't got into it at all. (Wellington, blind/sight impaired, male)*

One respondent felt their lack of information was attributed to their disability.

[Rating for knowledge of fire safety] 3. [Reasons] *I'm not sure how the fire systems work, the services, and because I'm deaf and I've missed quite a lot of information. My parents have been fine and explained, and I know what to do, but how to prepare I'm not sure about. I haven't been given any information so that's why I rate myself as a 3. (Auckland, deaf/hearing impaired, male)*

➤ **Moderate awareness of fire safety and prevention (Neutral)**

Most respondents, however, took the middle ground regarding knowledge and awareness of fire safety and prevention around the home. For these respondents fire safety is something they are aware of and, while some specific fire safety actions are being taken, there is a general feeling that more could be done.

[Your 6?] *I don't know because I was so disabled and dependent on others I had to – I've got two fire extinguishers in the house, one at each end of the house. I've got a fire blanket hanging beside the fire extinguisher in the kitchen. I've got the fire blanket just hanging beside in a sort of plastic container, three smoke alarms at strategic spots. I'm lucky I've got sliding doors in every room. I wouldn't be able to get the bed out the door though so I would have to be slid into a wheelchair, transferred into a wheelchair and take the wheelchair outside. (Auckland, physical disability, male)*

[Why 4?] *I suppose because I'm pretty laid back usually by nature, unless something really stresses me out like this week and I suppose I should think more about it and I bought some fire smoke alarms about two years ago and then my brother keeps telling me he's going to put them up but I think I should go for another source. [Just ring the fire department, they'll just pop around and do them for free. (Interjection)] Really, I didn't even know that. So there you go, there's my 4. (Auckland, physical disability, male)*

For me about a 6 because I missed out the fire programme. It happened after [name] had a fire in his house so after that I missed out because I was busy. So I had the equipment which I received from the Deaf Association. It's very interesting, it's very valuable but I've forgotten a little bit about the smoke alarm, daylight saving and the battery changing. Yes I'm a little bit hazy about that but I know that's what you do. (Napier, deaf/hearing impaired, female)

A number of respondents openly conceded that they gave fire safety and prevention little thought although still rating themselves moderately on knowledge.

Probably about 4. [Why is that?] Basically I think because I've been lazy and I've also worked on the principle that if I need help it will somehow magically appear. [Realistic?] No, not at all. I guess you don't bother doing things unless it comes up and bites you in the bum and lets you know that this was something that you should have known about. (Wellington, physical disability, male)

[Reason for your 4?] Just never really given it a whole lot of thought. I do have a smoke alarm though because I did work in the fire station. (Auckland, physical disability, female)

➤ **High awareness of fire safety and prevention**

Some respondents indicated that they had high awareness and cited their strong focus on maintaining independence as a key factor for putting fire prevention measures in place. For many, living with a disability meant they had to take more care and so were more safety conscious.

Probably before I had mobility problems I'd always know where my bag and keys were, partly from all the alarms going off, you had to have your keys. So I've kind of been aware of knowing where that is and my cellphone but I guess since my mobility thing I've just become more aware – it's made me think of that. If it was pitch black and I didn't have a clue where it was then I'd be standing out back probably falling over and not getting away from the fire. (Wellington, physical disability, female)

I do watch out for everything. Electricity, I turn off all the switches and I do keep myself safe with that sort of thing. You know, I'm aware of safety. I think blind people could be more aware. [Why do you think that?] I think it's because we have to be. I don't know whether it's just commonsense perhaps, you know, you think well, I can't rush around. I can't see very well so I've got to be aware of the difficulties more and I think you're more careful with most things. Well I am anyway. I think other blind people would probably be the same. (Invercargill, blind/sight impaired, female)

This view is reinforced by support people, who also note they are more aware as a result of supporting a person with a disability.

Personally having seen the outcome of certain fires and etc I'm very aware personally and when your partner is a brain injured partner and you're not quite sure what's going to happen from one moment to the next, we just take steps to make sure that the possibility is just about snuffed out completely. (Invercargill, main support person, head injury)

[How much of your knowledge has come about because you've had a deaf daughter?] Well the flashing lights obviously, all that sort of stuff. It's made me much more aware because of the fact that she wouldn't hear anything and that we would have to – before we had flashing lights we had to be aware of everything and any dangers for her that she wouldn't hear, so yes I think having a deaf daughter did make me more aware. (Whangarei, main support person, deaf/hearing impaired)

Another frequent reason for a high level of fire safety and awareness is that it is just 'commonsense'.

I'd probably say maybe about a 7. [Could you give me some reasons why you would say 7?] I think there's some commonsense in there. It's just the stuff you've read as well about having a plan and so on. In my flat there is only one exit. It's also commonsense in the sense of just watch what you're doing around the stove and you've got to be more vigilant obviously without sight, so relying on things that you hear and turning things off when you go out, it's the usual. (Auckland, blind/sight impaired, male)

A lot of it is really commonsense. Make sure that all heaters are turned off and there's nothing close to heaters. Electric ranges – we always switch our electric range off at the mains every night too to be sure. (Wellington, blind/sight impaired, male)

I guess it's common sense like, if I'm cooking something I leave it on the kitchen stove cooking, I don't leave it on. I take it off when it's finished and I let everything cool down. I turn the oven off. I turn things off when I've finished using it. Like the ironing, I don't leave that on when I've finished either. (Auckland, deaf/hearing impaired, female)

➤ **Awareness of responsibility for fire safety and prevention in buildings**

As part of the research we also asked respondents who they considered is responsible for the fire safety precautions in buildings. While some referred to building inspectors at the time a building is being constructed and others referred to the Fire Service, overall there is little awareness of who is responsible for fire safety precautions in buildings.

[Who do you think determines the fire safety precautions in a building?] I guess when they're being built they must have someone that that's their job – I don't know if it's a building inspector or an actual Fire Service person. I guess the building inspector knows the fire law about buildings and implements that. (Wellington, physical disability, female)

[Who's responsible for ensuring there are fire safety precautions in buildings, do you think?] I think the owner of the building is predominantly responsible. This is our biggest asset and it's our responsibility to make sure it's insured and is as safe as it can be. (Wellington, physical disability, male)

[Who do you think is responsible for fire safety in buildings?] I don't know. Would the fire brigade be responsible? I haven't thought about it, I haven't really thought about those things. (Invercargill, blind/sight impaired, female)

[Who determines fire safety precautions in buildings?] It should be from the fire brigade as far as I'm concerned. Builders maybe. Well, they should know where to put it shouldn't they? (Invercargill, head injury, female)

5.2 Level of concern

Respondents were also asked to rate their level of concern about fire incidents at home on a 0 to 10 scale where 0 meant very little concern and 10 meant great concern

Just under a third of respondents said they had little concern about a fire incident at home, just under half chose a rating between 4 -6 and around a quarter were more highly concerned.

Again, while not strictly comparable due to the differing methodologies, it is interesting to note that there are indications that the level of concern about a fire incident in the home among respondents in the research is lower than that declared by the general public in UMR's December 2006 Omnibus survey.

The general public are generally highly concerned about fire incidents at home. In UMR's omnibus survey among the general public, 68% declared great concern (7-10) and 21% were more neutral (4-6). 11% selected 3 or lower.

CONCERN ABOUT FIRE INCIDENTS AT HOME	
<i>On a scale of 0 to 10, where 0 means very little concern and 10 means great concern, how concerned are you about fire incidents at home?</i>	
	General public
	DEC 06 %
0 – Very little concern	0
1	3
2	4
3	4
TOTAL LITTLE CONCERN (0-3)	11
4	3
5	10
6	8
TOTAL NEUTRAL (4-6)	21
7	10
8	15
9	8
10 – Great concern	35
TOTAL CONCERN (7-10)	68
n=750	

➤ **High concern for fire incidents at home**

Some respondents have a very high level of concern about fire safety and prevention. For these respondents, thinking about a fire incident raised a number of issues including knowing what to do in the event of fire and also what equipment is available for them with their particular disability.

[Why high ratings?] *There's always something in the back of my mind. If I actually started to think about it, I have so many concerns it just wouldn't be funny. I wouldn't know where to start. [What are you worried about?] If a fire happens. What would happen if it happened here? What would happen to me? Would I be able to put it out? Would I get help? Would I be able to be involved? There's no alarm. I wouldn't even know about it so things like that. (Auckland, deaf/hearing impaired, female)*

[How concerned would you say you are about fire safety around the home?] *10. [So you are very concerned about fire?] Yes. As a blind person you're relying on the alarms to go off. Smell. The biggest thing is you can't see the fire, you feel it and if you feel it you must be very close to it. If something is on the stove or something it's not like you can go and grab a towel or something and throw it over it and put it out. More concerned about where is the fire and your access out of the house. (Auckland, blind/sight impaired, male)*

For these respondents fire safety and prevention was more important than other safety issues such as personal safety, burglary or accidents.

[Is fire safety and prevention more or less important to you than other safety issues around the home?] *It is really because if a burglar broke in I'd say help yourself. You can't do that with a fire. (Invercargill, blind/sight impaired, male)*

Head injury patients were concerned about the impact that loss of memory could have on fire safety knowledge and what actions to take.

Well the thing is, I might know about them now talking to you, but whether I actually remember to do it or not is another matter. So I think that's why I put myself at about 7. (Invercargill, head injury, female)

➤ **Lower levels of concern for fire incidents at home**

It is apparent that, for many, other challenges take precedence over fire safety and prevention. While some people with physical and sensory disabilities take fire safety precautions it is evident that fire safety is not top of mind.

[Thinking about other things like burglary, accident at home, is a fire incident more important or less important?] *It is not more important. [Why is that?] Because we're more likely to have an accident than we are to have a fire, please God, I should touch wood. (Invercargill, head injury, female)*

Also, for those with a lower level of concern, a fire incident is perceived as something that will not happen to them and not considered a real possibility.

[Where does the priority that fire safety prevention rate for you?] *I think it's not going to happen.* (Auckland, physical disability, male)

[How much of a concern is it from 0 to 10 do you think?] *I don't even think about it. I have thought about it to the extent that I know what I'd do if I had to and where the fire was and which way you couldn't go. I'd say 3 or 4.* (Invercargill, blind/sight impaired, male)

However, there is recognition that if a fire incident occurs there is a need to know what to do and be prepared.

[In terms of the safety issues that you face where would fire safety fit into that?] *Fire is low, it always is you know. You only have one every 50 years in your house but when you do you need to know what you're doing. It's not over common but when it does happen you've got to know what to do that's why it's important to be prepared.* (Auckland, physical disability, male)

5.3 Preparedness

➤ **Personal responsibility for basic actions**

With respect to fire safety and prevention there is a strong view that people should take some responsibility for ensuring preventive actions are in place.

I think with myself being the injured party, it's ultimately my responsibility to make sure I've got everything in place. (Auckland, physical disability, male)

Reasonable actions to take included access to the telephone, having smoke alarms and fire extinguishers and planning exit routes.

The main actions that respondents are taking are keeping an eye on electrical appliances that can cause fire, such as the stove and the iron.

[Main thing doing is checking stove?] *At night I like to turn the electric jug off, make sure switches, those sorts of things, because we leave them on during the day and I try to turn them off at night – sometimes we forget.* (Invercargill, head injury, female)

I turn everything off at the wall except my freezer. Everything else is off all the time during the day. [What about your clock on your range? (Interjection)] I don't use it often either. I've got my talking clock and I've got a talking watch – I've got two talking clocks. I have everything turned off bar my fridge and my freezer. I make a point of turning them off. (Invercargill, blind/sight impaired, female)

I know about everything, turn the power off, turn the heater off and other equipment and things like that before I go to bed, I turn electricity off always. In bed, if there's a fire I have got a fire alarm with a flashing light but no problem, always straight out the window. But then it's right by the window and I would get straight out, yes. (Napier, deaf/hearing impaired, male)

Respondents are also aware of electrical equipment and plugs that can cause an electrical fire.

I'm sort of feeling that fire, with me now, it just comes from the electricity things. Be careful around electrical wires, it could be this problem broken here, you shouldn't have it, anything like that. My son said one time, when I had my old vacuum cleaner, and told me off. You see you could be electrocuted. I'm quite careful with anything like that. Anything that goes with the light or anything that goes wrong, I ring the electricity people straight away, because I'm a bit scared of that sort of thing. More scared of that than anything else. Electrical things because they can go any time. (Invercargill, blind/sight impaired, female)

If you have a PC at home I tend to try and keep any plugs for that PC in one compact area. I think, before I can hurt myself or [name] would, if there were subsequent leads off the record. I would hate to think what would happen if half the cords were tangled up and that. (Auckland, blind/sight impaired, male)

I suppose there would be more electrical equipment than in the average house. A friend of mine encouraged me to get the safety thing in case of surges and all that. I'm not very technical. Apparently if there's a surge it cuts it off. I think it's like a box. [So the box cuts out and stops the surge from coming into the house] Yeah. This friend of mine's brother had that done to him. Cost him about \$10,000 because all his electric things blew up, the whole lot. (Auckland, physical disability, male)

Some also talked about planning their exit routes in case of fire.

Maybe at night time, if there's a fire you need to think about how to get out of the house, which window to use, which door to use, like an exit route, like for example, the front door's maybe dangerous or it's got a deadlock on it. You need to think where's the key, the key's in the kitchen and I'm in my bedroom. So I need to think about things like that, which way I'd get out of the house. (Auckland, deaf/hearing impaired, female)

So needing to have a plan, a definite plan to get out of the house. (Auckland, deaf/hearing impaired, female)

Every night before I go to bed we've got a dead bolt on the front door, we don't use the key. I just check it before I go to bed each night to make sure I can get out if we have to in a hurry by pulling the thing down and opening the door. That's how we would get out. We've practised escape routes with the kids. (Invercargill, blind/sight impaired, female)

➤ **Training for caregivers**

Those who are dependent on others for mobility also noted that caregivers should be well trained and aware of what to do in an emergency.

[What are the simple things?] *It's having access to the phone. [Personal alarm?] Yes something like that. Having fire extinguishers at hand and smoke alarms and training your people where your exits and how you have to dive out of bed, because if the fire is roaring away there's likely not to be any power anyway so you have to be able to slide out of bed into your chair manually. So a bit of training in that. Most of my caregivers are only 5 foot. That could be a problem.* (Auckland, physical disability, male)

It is partially our responsibility is the conclusion I've come to and partially educating – if the education is there it's up to you if you take it or not, in whatever form, but I think it should be blanketed in different forms - people might relate to the internet, people might relate to something that TASC sets out or someone might relate to someone just actually doing a class and talking about it. (Auckland, physical disability, male)

➤ **Personal alarms/ security systems**

A number of people with disabilities also have personal alarms, mainly for medical reasons. During discussions these respondents noted that, in the event of fire, they still had access to emergency services through this system.

Also, when people are discharged, if they were living alone and that – a personal alarm type system that they could use, that would be something that I have in my place with living alone if, like, they fell out of their chair and something, that they're hooked up with their own personal alarm type system that they just need to push, they're not having to ring and that sort of thing and if there was smoke. (Auckland, physical disability, female)

There's one thing that you can do. Some of us also have Medic alarms. In the event of a crisis, an emergency or whatever, you can trigger that. That would have a response. It doesn't matter who the hell comes out as long as somebody comes out. (Invercargill, main support person, head injury)

Others have security systems in their house that are linked directly to emergency services.

I have security, if there's fire, it's hooked straight into the computer, the security company and it's hooked straight into police, goes through the computer and ambulance. So that's through my security company. I don't need to ring 111 or anything - just buttons I push - and that's straight away contact – not yet have to type those buttons, not yet. [That security system, do you have a personal alarm?] Yes, yes, yes in my house, yes I have. [Personal alarm on yourself?] No, no, no, just for the house. And the man explained to me if something is wrong, someone grabs me, I push police button, that's all and they will come straight away. (Napier, deaf/hearing impaired, female)

➤ **Rental accommodation is well equipped**

Respondents who are Housing New Zealand tenants noted that they are well provided for in terms of preparedness for a fire incident, with smoke alarms in all rooms, regular testing of smoke alarms and ramps for those with spinal injuries.

I'm stuck in this room most of the day. It has got a smoke alarm and I work here. If you're with Housing New Zealand every room has got a smoke alarm, that's the prerequisite and they come around yearly and check it. The ramps were already here and it's quite fortunate to have ramps. (Auckland, physical disability, male)

SUMMARY

**AWARENESS AND LEVEL OF CONCERN
AMONG PEOPLE WITH PHYSICAL AND SENSORY DISABILITIES**

- Moderate awareness only of fire safety and prevention around the home.
- Generally a feeling that more could be done.
- Low to moderate levels of concern about a fire incident occurring at home.
- Fire safety is not top of mind as other challenges take precedence.
- Use of personal alarms provides a degree of comfort.
- Strong view that people must take some personal responsibility for fire safety and prevention actions. This may include ensuring that caregivers are aware of fire safety issues.
- Main actions taken are with respect to use of electrical appliances and equipment and installation of smoke alarms.

6. Fire safety and prevention issues

In the qualitative depth interviews and groups we explored a number of fire safety and prevention issues faced by respondents.

6.1 Planning exit routes

➤ **Only one exit route if dependent on mobility aides**

For people with physical disabilities the main issue in the event of a fire is evacuating safely and quickly. Most respondents had only one main exit route with ramp access suitable for a wheelchair. Stairs are a particular hazard when confined to a wheel chair.

[Access pretty important, is that something you've thought of how if there were a fire you would get out?] *I was working in an office once and like everyone evacuated and there was me and this lady that was born with legs, basically amputated quite high, and so we were left there and we were saying – far out, you'll have to jump on my back– because she was quite tiny, I said you'll have to jump on me because I know how to go down the stairs as long as I've got one rail. I said well you're going to have to jump on my knee, leave your chair here and we'll go down and she said well I'm not leaving my chair and I said just grab it and we'll throw it down, figure it out on the way down there. (Auckland, physical disability, male)*

I fought to get a ranch slider in my bedroom and a ramp from there, because I was on my own, because if ever there was a fire it was going to be probably at the end of the house where I had to go out through. But it comes and goes doesn't it, see they don't allow two exits now, the DHB's. (Auckland, physical disability, female)

➤ **Existing is difficult for a range of disabilities**

Apart from those with spinal injuries, there are many others with physical disabilities through illness such as multiple sclerosis and those with multiple disabilities. A number of people with head injuries also had mobility issues.

[What makes it different for you?] *Physical mobility, yes physical mobility would be my problem. And getting out of a window concerns me. [Name] would have to push me out and I don't know what that would do to my bones. (Invercargill, head injury, female)*

[Getting out of the house safely] *I can crawl. In the middle of the night my mobility is not that great because when I'm still for a while I can get quite stiff. Even at night time, before I go to bed, that's when I'm most fatigued down the back. Because there's rails on the stairs that's the main thing for me. I'd probably just get down on my bum. If I was home alone I could get out okay aside from the smoke. I always know where my walking stick is as well. Probably just throw that down the stairs and then pick it up at the bottom.* (Wellington, physical disability, female)

➤ **Being aware of secondary exit routes**

Depending on one exit route meant that people with disabilities also needed to think about how to exit if that route was blocked by fire. Secondary access routes would be via a window or door without a ramp, a much more difficult process when in a wheelchair or dependent on other mobility aides.

There is only one way out of here for my wheelchair, my wheelchair can't fit out the back-door. There is no other option, I can only go out the front door. [What would you do if that was blocked by fire?] I would have to get myself to the back door and throw myself down the steps I guess. (Wellington, physical disability, female)

In my old room down there you could just step out through the window. You have to break it first but I've got a stool there that I could smash the bottom with and put a pillow over and step out. There's the ground just outside. [You've thought about that have you?] Yes, too right. That's what it's all there for. [You put the stool there deliberately did you?] Yes. (Invercargill, blind/sight impaired, male)

[You have thought about an exit route for yourself?] *Yes. We've got three external doors. One through the laundry and this one here that goes out to the porch and then the backyard and then the front door which goes down the stairs. All of them would be okay as long as the way wasn't blocked by fire or anything.* (Wellington, physical disability, male)

Some of the respondents knew about keeping access routes clear for their equipment or wheelchair access.

[Any fire safety issues you could think of that people in chairs need to be thinking about?] *Only to make sure they've got good access to get out of the building, out of the house, and if one happens to be a bedroom window they need to get it cleared so they can do it. Overseas you're supposed to have two ways out of your room in some country like the States. A bedroom window is often the best way you're going to get out quickly.* (Auckland, physical disability, male)

➤ **Getting out OK but more difficult to move away from the house**

Limited mobility meant getting out was only one issue faced, as moving away from the outside door was also difficult.

The main issue would be how do I safely exit the home in the event of fire. I do have sufficient mobility that, if there was a fire that started in the kitchen for example, I could get an exit through the front door and down the stairs. It wouldn't be a fast exit but it would be an exit. The difficulty would be if there was a fire on the street side of the house. I could get out the back probably easier than I could get down the front actually, but the difficulty would be that having got out there, I wouldn't be able to get over a fence or anything like that. I'd be in the back yard and I could be trapped by the fire. I've got no other way of getting out from there. (Wellington, physical disability, male)

An issue for blind people when evacuating is not knowing where neighbours are or the layout of the area outside their home.

[Where would you go?] You see it's difficult for a blind person because going over to your neighbours, you could fall over something. They're not going to be careful so much as what you are with things not being in the way. They could leave something on footpaths or anything and that's where it's difficult. (Invercargill, blind/sight impaired, female)

6.2 Dependence on specialist equipment

People with physical disabilities are very vulnerable in the event of fire. Some respondents are very dependent on equipment for transferring from bed to wheelchair etc. This includes walking sticks as well as wheelchairs and hoists.

These respondents talked of the need to have alternatives in place such as a caregiver who can transfer them in an emergency (one person had trained their caregiver in doing a 'fireman's lift').

Say if the hoist is engulfed in a fire. Caregivers are given with ACC now, people and the no lifting policy, so if the hoist isn't available during the fire and the fire service hasn't got there yet then you're in a situation where they can actually lift. Perhaps training carers to do a fireman's lift, make it appropriate, but that is a question that the fire service [need to] adapt. I trained my wife on the fireman's lift from the beginning. In those days, I was a lot lighter. With a fireman's lift, that is available to be trained, it could save a life. You could easily get someone off the bed and into the chair really quick in the final stages if the hoist isn't available, and that's based on if a fire has already started and it has blocked the room. (Auckland, physical disability, male)

Deaf or hearing impaired people also need specialist smoke alarm systems.

[Range of issues pertinent to a deaf person living in a domestic environment in relation to fire safety] *First of all if they're asleep, you obviously need to have a smoke alarm or a fire alarm that would be able to wake you, either visually or shaking, if your hearing isn't good enough to hear it. Some people might have good enough hearing to hear that alarm but my daughter didn't. If you didn't have that, someone would have to come and get you and obviously be able to get to you to wake you up which is the reason why we decided that we needed smoke alarms that would set off every single smoke alarm so that if she was in a different part of the house and the fire was in a different part of the house, that it wouldn't only set off the smoke alarm in that area but would set them off everywhere so that she would always be able to see.* (Whangarei, main support person, deaf/hearing impaired)

6.3 Safely using appliances

➤ Use of electrical equipment and appliances

Many people with disabilities have large amounts of electrical equipment and, depending on the disability, they face various hazards. Those who are blind or sight impaired need more sockets rather than using extension cords, for instance. Tangled and twisted electrical cords are also a problem.

[What are the range of issues that you think you face being a sight impaired person living independently in a home when it comes to fire safety?] *I think we've got a lot of items ranging from computers, CCTV switches, magnifiers that you plug in, and lamps, tape recorder.. I often find that, when we had our house renovated, the electrician said "Wow, I've never had someone who requested so many plugs" and I said "Yes, because I am not going to trip over leads and I'm not going to put 10,000 extension cords in and I want plugs easily reached and at proper places not behind things". I tend to have a lot of things to plug in and it should be reachable because they can sometimes fold over each other if you don't organise them properly.* (Auckland, blind/sight impaired, female)

I always have to double check because of his memory – if he's turned on the range. That's why I cook meals – he's not supposed to cook even though sometimes he does. (Invercargill, main support person, head injury)

In my situation here, you'll see that the chair, the hoist, they all get charged in here and you've got all this other stuff. If you look down here it's like, I try and keep it as tidy as I can, that's like spaghetti junction down there and if you don't keep it clean and it starts getting really dusty down there you've got the opportunity of a possible fire hazard you've got a powered bed, you would definitely put a fire extinguisher in there. (Auckland, physical disability, male)

➤ **Cooking is a real hazard for those with disabilities**

Another common hazard for those with head injuries and also blind and sight impaired people is cooking meals safely. This may mean not cooking, having someone in the house most of the time with them and always checking that electrical appliances are turned off.

I have a bit of a habit of thinking I've turned the stove off and I've left it on high. I've done that like 3-4 times this week. You can smell it and your food doesn't get hot and you smell the oven is on. (Auckland, blind/sight impaired, female)

[Any other major concerns around the home?] *The only other thing I get concerned about is when we use our grill, we have a smoke alarm that bugs us, which probably means it needs to be cleaned. And that probably means that that is something that should be done. I'm very pleased with myself that when we were deep frying something last night, I actually remembered that we should be prepared to it bursting into flames and what would we do. I'm very proud of that – I remembered [Is that a concern for you?] Well I have actually been told that I am not allowed to cook when I'm alone. That was a directive and I don't. (Invercargill, head injury, female)*

Although some cook mainly using the microwave, others had experienced potential fire hazards or actual fires when cooking using the stove.

I once was stirring something and the sound to me sounded like water boiling over but it was actually something catching fire you know, because that chhh sound it made was very similar and because of having no sound it took me longer to figure out that it's not water boiling over, it's actually something that fell off and is now burning at the inside of the element and once I knew that, I could switch everything off and clean it up. I suppose that, I mean many of us are - everyday you cook and you're fairly safe and you are fairly whatever, but it's the visual signals that you don't pick up that can be a bit of a time delay and things can happen in that few seconds I suppose. (Auckland, blind/sight impaired, female)

One blind respondent had recently experienced a fire when reheating his Meals on Wheels and suffered fire damage and smoke inhalation. The lesson learnt from this incident for him was that next time he would call the Fire Service rather than try to put out the fire himself.

I was over there and my Meals on Wheels came in, cold as usual, so I put it on here on a plate with a lid on top and I went and had 40 winks while it was going. I got a towel and I folded it up into four so as to protect my thumbs. I pushed the pot backwards – pulling it over and I went to take it away and god it was too hot so I reached down from this towel here and what do you think happened? [Caught fire?] Yes. I didn't know did I? I was wondering why the hell my wrist on this hand was getting so hot and then when I got to about here I thought gee, I plonked it down on the table and went to get another towel and I run it under the tap and I was just using it on the floor and I got it all out. I didn't realise. I put the plate here and this is when this got singed and you can see underneath that here, how it got burnt along there too. It burnt a hole in the chair and it was quite exciting and the stinking smoke got down my throat – it was like charcoal. Next time I'll just press the button for the fire brigade. (Invercargill, blind/sight impaired, male)

6.4 Using fire safety equipment

➤ *Fire extinguishers*

While a number of respondents mentioned fire extinguishers as part of their fire safety and prevention actions, it is apparent from the discussions that there is a lack of knowledge about when to use them and, for those with poor coordination, whether alternative, light weight fire extinguishers are available. Some considered that these discussions should take place as part of living safely and independently at home.

While fire extinguishers are mentioned by some respondents (excluding blind persons) as important equipment to have, very few people had them installed.

If there's a small fire, I have a fire extinguisher to put that fire out. (Napier, deaf/hearing impaired, male)

I've got a fire extinguisher but it's run out. I need to buy another one. It's expired. When I spray it now it's not working. I've got it in a drawer. It's next to a cupboard and it's brown. I'd rather have it out and ready rather than having to go looking for it. (Auckland, deaf/hearing impaired, female)

[Fire extinguishers?] When it's a landlord, I think he should but then I guess if I knew the law, if he didn't have to for each flat then I guess it should be our responsibility. People with individual houses should have one. I don't think many people do. The only times I come across them is flats that have had to provide them. You could probably stop so many fires with those. (Wellington, head injury, female)

Some were unsure where to position them in their homes.

[Are there any specific measures that you've got in place in this house to do with fire safety?] We do have a fire extinguisher but I wouldn't even know how to use it, to tell you the truth, so that's the only fire safety that we have here is a fire extinguisher kept in the kitchen cupboard. If there was a fire in the kitchen you probably won't be able to get to it. It's hard to know if you've only got one fire extinguisher in the whole house, where to actually keep it. You probably need two or three positioned strategically around the house for it really to be of assistance. (Auckland, blind/sight impaired, male)

Those who had electrical equipment such as hoists and electric wheelchairs showed more awareness of fire extinguishers as a means for putting out some fires.

I don't know because I was so disabled and dependent on others I had to – I've got two fire extinguishers in the house, one at each end of the house. (Auckland, physical disability, male)

I think a fire extinguisher for people like us should be placed actually in more than one place. [You said that the fire extinguisher should be in more than one place what sort of places do you think are the best places?] I'd say the bedroom where, if you've got a powered bed, you would definitely put a fire extinguisher in there. [How common are powered beds? Would that be standard?] Yes, very expensive anyway. [Anywhere else?] Standard for the kitchen, I think. I think if you've got a situation like I have then there's only access one side of the house. The side that hasn't got access, it is important to have easy direction fire extinguishers at that end of the house that you can recognise. (Auckland, physical disability, male)

However, a heavy fire extinguisher is not able to be used by some people with physical disabilities with limited dexterity, and advice on whether there are fire extinguishers suitable for them would be helpful.

But a lot of people would have dexterity kinds of problems, they can use their hands but you know how sometimes you have strange ways of getting to the extinguisher to use it – safety things. Probably if people were advised which make would be a better one for people with weakness in their hands. (Wellington, physical disability, female)

I'm alarmed that – we've got a fire extinguisher – but I doubt if I can use it. That concerns me. [Why do you think you can't use the fire extinguisher?] Because this hand doesn't work. (Invercargill, head injury, female)

Some thought that having a fire extinguisher might impede them exiting from the building, noting that they might feel obligated to fight the fire rather than get out.

[What about fire extinguishers?] You're not encouraged to fight fires, you know, if you're in a wheelchair you will probably be told that you should be getting out of the building rather than fighting it. (Auckland, physical disability, male)

I've always worked on the basis of if we've got a fire, my first priority is to get out. I'm fearful if we had an extinguisher I'd feel obligated to try and put the fire out and I know realistically I don't have a lot of time to exit the house safely. I'd probably be more worried about the dog than I would be about myself actually. (Wellington, physical disability, male)

6.5 Specialist smoke alarms

➤ Installation

Installation of equipment is an issue for some respondents, with the more complex smoke alarms for deaf people requiring installation by qualified electricians.

The Deaf Association had access to the smoke alarms but they didn't really know where to go to get the whole house wired for it. I know I had to source that through my local electrician [Was he up with the play on that sort of stuff?] Well, we kind of brainstormed it together. He'd never done it before. (Whangarei, main support person, deaf/hearing impaired)

I worry for myself if there's a flashing light for a fire and, say for example, I have a light stick on my phone for the doorbell, for the fax ringing, like there'd be interference and I'd have a fire alarm as well. There could be a clash. What's ringing? What's happening? Then I have to pay for my electrician to set up the system. Does anybody know how to do that? Is it the right electrician that I'm using? Plus the cost as well and then the wires throughout the house, it just becomes so expensive. (Auckland, deaf/hearing impaired, female)

➤ **Availability of specialist smoke alarms to the wider disability community**

During the discussions it was discovered that some of the specialist smoke alarm equipment designed for deaf and hearing impaired people, such as strobe lighting and under pillow vibrating pads that are linked to smoke detectors, may also be useful for other disabilities and those with multiple disabilities.

Some respondents said their medication meant they slept deeply and conventional smoke alarms may not be sufficient to stir them in the event of a fire.

I think, also you've got to look at sometime the medication that people take too, because often the medication – with [name] is getting pains, she takes whatever and what they call Revotril, which is an extra thing and I'm sure other people have heard about it. It knocks her out completely. In a situation of a fire – if I'm not there and she doesn't hear well, that's it. I've got a problem. (Invercargill, main support person, head injury)

[How can you get around that?] *My worry is that my husband suffers from fatigue. After lunch he goes down hill and he goes and has a sleep and I'm talking a deep sleep for two hours. He wouldn't even hear the smoke alarm. He doesn't hear people knocking on the door or ringing the bell – nothing. It just worries me. He'd probably sleep through it. When he left the rehab centre he wasn't allowed home until – ISIS said we had to have smoke alarms and they even put them in the dining room and everything. They usually just put them in the hall and the bedrooms but they said they'd put extra ones in the kitchen and dining room which go off quite a bit. That's just my worry and I don't know anyway around that. (Invercargill, main support person, head injury)*

Excessive noise can also confuse and annoy some head injury people, which is another reason why alternative smoke alarm mechanisms are important for this sector of the community.

[What would make it more difficult for him personally to be able to get out?] *His head injury makes his epilepsy worse so if he gets too stressed out that can bring seizures on. [If there was a fire or something he would get stressed?] That noise – when he lived on his own he smashed the alarm off ... he just smashed it and that was just through smoke. (Invercargill, main support person, head injury)*

There was a clear lack of knowledge on the range of fire safety equipment available for disabled persons, with many respondents wanting to know more about alternative smoke alarm equipment.

I am a very heavy sleeper. I take a lot of medication, a very heavy sleeper. [Knowing about that sort of equipment, would it be useful?] Probably, yes. Where does one investigate that? (Invercargill, head injury, female)

[Smoke alarms for the deaf might be useful also for you and your family?] *I'm deaf and without the aids I don't hear anything. [name] is going deaf so he's got to get aids so that would go down with him as well. That would be an ideal thing.* (Invercargill, main support person, head injury)

Also I was told the other day that you can get a pad to put under your pillow if you're a sound sleeper and the smoke alarms don't wake you. It does – it shakes you. [Who told you about that?] The fire brigade. He said they were very good for anybody that took a sleeping pill or was a heavy sleeper. I think that would be good. We need to know more about some of these things. (Invercargill, blind/sight impaired, female)

6.6 Cost of equipment

➤ **Low income**

The cost of equipment is prohibitive for many people with disabilities. A number of respondents are either reliant on benefits or can only maintain part-time work due to their disability.

I would have to say, when you talked about something under the pillow – I was actually going to say, of course it would depend on how much it cost. We live on a benefit, benefits don't go all that far. (Invercargill, head injury, female)

[Key barriers that deaf people may face when they're trying to become more fire prepared in the community] *Then I guess the financial aspect would be a huge barrier because a lot of deaf people don't have very good jobs, because historically they didn't have very good education. So a lot of financial barriers there.* (Whangarei, main support person, deaf/hearing impaired)

[Anything that's making it more difficult for you to take fire prevention actions?] *Not really apart from not being able to afford a fire extinguisher. Me and my husband are on benefits. They're probably more than \$50.00 so that's not that feasible.* (Wellington, physical disability, female)

Somehow, even if they paid half and we paid half. Just a little bit of help to get it because it's just a bit expensive. It's just not a priority. Food is more of a priority than a fire extinguisher. (Wellington, head injury, female)

The cost of anything is because obviously I'm not working and my wife is working and earns enough that I don't get a benefit at all. Cost is always a factor but that's not to say that I'd be stupid about spending \$100.00 or \$150.00 or \$500.00 if it was going to make me or my family safer. Certainly a cost is always a consideration. (Wellington, physical disability, male)

➤ **Costs of having a disability**

Disability also incurs extra costs that make it more difficult for people to make ends meet.

For example, the three of us here tonight, we all work, we all pay tax, we all earn money. We're always paying all the time, we're always paying out for more equipment, for alarms, for text phones just so we can get through. The fire alarm really becomes the last priority, just to survive in the world as it is. (Auckland, deaf/hearing impaired, female)

➤ **Specialists smoke alarm systems for the deaf**

There is a strong call from the deaf community for specialist smoke alarms to be more readily available and at a cost that is comparable to the smoke alarms available to the wider community. They note that the free smoke alarms often provided to hearing people are of no use to deaf people.

[Main concerns/issues about fire safety for yourself.] Fire alarms, talking about for myself, my concerns. Emergency. For example you can't buy a cheap alarm at the supermarket. \$200. Can't do that. For deaf it's just so expensive. (Auckland, deaf/hearing impaired, female)

Deaf people are penalised because they're deaf and they can't have a normal fire alarm. That's what's happening in New Zealand now. I'll give you an example, recently, I think last year it was, it was in my area, Name] Trust provided alarms and that was really good. Congratulations on them for doing that but they were hearing alarms and I can't ask for one because I'm deaf. I don't fit their need. (Auckland, deaf/hearing impaired, female)

Hearing people get free alarms. We've got to pay for an alarm. There should be some sort of funding. There's only about 7000 deaf people in New Zealand. It probably wouldn't cost much. (Auckland, deaf/hearing impaired, male)

The flashing light smoke alarms required for deaf people also need to be in every room to be effective, which also adds to the cost. Systems are required to be wired into the house and are linked, again increasing installation costs. Respondents also noted that they could not easily take the smoke alarm system with them if they moved house.

[Is it much more expensive than sound smoke alarms?] Definitely more expensive than that yes, but how much it costs I really couldn't tell you. Those smoke detectors have to be set up in maybe a corner and wired externally, perhaps. Maybe for a hearing person, maybe one alarm might be good enough for the whole entire house for a few rooms. For a deaf person, if you're in the kitchen and the light is flashing in the lounge – you see where I'm getting at? Each room would need it. You'd need one in the toilet for instance and also when you're in the bathroom in the shower if you don't have a flashing light in there. (Auckland, deaf/hearing impaired, female)

Very few deaf homes had it because it was so expensive and it had to be wired in with the light. All the wire had to be – there had to be connections in every room and that's where a lot of the expense comes from. So we can buy a special system a little bit cheaper but it's still expensive. There's no comparison really to your \$20 alarm that anyone in the hearing world can buy and the fire service have given them out free as well. We need to buy something to match what the hearing have access to. Then 100% of the deaf people can have it the same as the hearing. (Auckland, deaf/hearing impaired, female)

➤ **Lack of understanding of the application process for funding for specialist equipment**

Some respondents who had applied for funding for specialist equipment questioned the criteria and also the length of the process.

[Any other action?] Applying for equipment and not actually being able to find funding, not fitting the criteria. Because someone like me who can hear quite well, but is hearing impaired. (Napier, deaf/hearing impaired, female)

If you were entitled to the equipment you get the OT to come and do the check, you could have a twelve month wait before you see the OT first of all. It's not just the cost of the equipment, it's the wait to get assessed for it. (Invercargill, main support person, head injury)

We have got it in a plan that two people assist them down the stairs before the Fire Service get here. We've applied for funding for those special chairs and we're waiting. (Invercargill, main support person, head injury)

➤ **Lack of awareness of sprinkler systems**

One respondent commented that it may be more cost effective to install a sprinkler system than have a flashing light smoke detector system.

It might be better to have a sprinkler system set up in your house. I just really don't know actually. What I mean is that, by the time the light flashes, is it too late? (Auckland, deaf/hearing impaired, female)

6.7 Contacting emergency services

➤ Texting

Many respondents use cell phones and view them as important communication devices for people with disabilities in the event of an emergency.

[In terms of access to emergency services?] *Cell phones are our life but there's an issue around showering. If I fell out of the chair in the shower and hit my head I'd be in trouble because I don't have a cell phone down there and I wouldn't be able to get back into the wheel chair so have to crawl in the hallway probably, so I talked about getting one of those medical alarms as well. [Who did you talk to about that?] ACC. I haven't pushed it. They said you can get a waterproof case for your cellphone, which wasn't a bad solution but I don't carry the cell phone into the shower generally, you know? (Auckland, physical disability, male)*

Texting is mentioned by a number of deaf respondents as an efficient means of getting in touch with emergency services. However, there is confusion among deaf respondents as to whether this is acceptable to emergency services.

I should text. I guess I might text if something should happen. I haven't had any feedback. [Have you heard of someone who does it or someone who's been advised to use texting?] I heard that I should be texting but I haven't used texting. (Auckland, deaf/hearing impaired, male)

I thought what you suggested about text would be fantastic, if that was set up I would use it myself. (Auckland, deaf/hearing impaired, female)

Some thought this service was already available and that you could text 555 to get through.

I text 555. [You can't text 555. (Interjection.)] Yes, I can text 555. It's the same as 111. [What does 555 do?] Police have 555 and it will access the services straight away. I think it's 555 for sure, I'm not too sure. (Napier, deaf/hearing impaired, female)

➤ **Faxing**

For many deaf respondents the TTY¹ system is used to communicate.



Well, at home I have a fax number and I have like a speed dial. It's programmed into the speed dial and it goes. All I have to do is push number 1. Quite flash. We're a completely deaf family so I have that set up. My speed dial's there and I can just pick it up and dial it. I know which one is allocated to which number. Then wait, they've got my address. We have to have everything printed out on a sheet of paper before we send it away, like our address, our name and then tick what we need but that's always there by the phone.

(Auckland, deaf/hearing impaired, female)

Some respondents found the system cumbersome and complained that the fax number was hard to remember and too long.

[How do you know how to access the information?] I've got the Fire Service number there. If I didn't know the number it would be a problem because there are too many numbers. It's a long number so that's a little bit difficult. I don't have it solid in my memory but I've got it by the fax machine and I think the number should be smaller like 000 or maybe change it to 106 or something like that so it's only a 3 digit number. In Melbourne, Australia that's what they have, 000. In New Zealand here it's 111 and in Melbourne its 000 and they changed the fax to 101 or TTY for 106 as well. Here in New Zealand its 111 and they should really introduce a TTY number, maybe 112 or something like that, but they've got a long number and you can't remember it, its impossible. I can remember the number but for some deaf it's just impossible. (Auckland, deaf/hearing impaired, female)

Some respondents keep the number handy by the phone, however, others are not as organised.

The number, sometimes I forget the number. [What number?] The access number because I can't call 111. It's a deaf number, but I forget it. Does anyone know it? I know 111 but I don't have access to that but I need to go and ask somebody to ring for myself but I don't know what the fax number is. [Know there's an emergency number for deaf people but you can't remember what the number is] It's really long. The fax number plus TTY number. They're both different numbers. You have to remember like 000 0800 6060 or something else or 606010 or something. Deaf people have to remember those numbers. (Auckland, deaf/hearing impaired, female)

¹ The text telephone (TTY) is a device that lets people who are hard of hearing, deaf or speech-impaired communicate by typing messages back and forth to one another, rather than using an assistant to relay the messages. A TTY combines a telephone handset (which is set onto special acoustic cups), a keyboard and a text display. Messages typed using the keyboard are sent over the telephone line (not the internet) and appear on the text display of the person called. A TTY is required at both ends of the conversation.

There seemed to be a bit of a mystery concerning how the emergency fax system operated as it was not clear how closely the fax machine was monitored. There are questions over how responsive emergency services are and how regularly they retrieve fax messages when received via the emergency fax number. Respondents called for the emergency fax process to be made more transparent to help support more faith in the system.

We don't know, we've got no idea how quick their response too is after that. I'd like to maybe set up something and have a the Fire Service come and tell us what's happening and have somebody maybe guarantee that there's somebody sitting on the fax waiting and not just somebody walking passed and oh look there's a piece of paper there, lets have a look at that, oh gosh there's an emergency somewhere. (Auckland, deaf/hearing impaired, female)

In an emergency such as a fire incident faxing is the least preferred option as it is too slow.

Normally a fax. I would have faxed but now I might use texting or a relay service. [Is the fax very fast?] It's slow. We have to use emergency forms and we tick a box, put our address, our name, what's happening. So it's actually quite a lengthy process and it is slow. The time between faxing and wanting information compared to a phone - it's really hard if a deaf person doesn't have everything. (Auckland, deaf/hearing impaired, male)

We want a quicker response, we don't want a fax, we want an instant response. We don't want it to be slow. Fires can burn so quickly. About 3 minutes that's all it takes. (Napier, deaf/hearing impaired, male)

➤ Supportive neighbours



Having good rapport with neighbours is important for many people with disabilities as they may be called upon to contact emergency services. Some respondents suggested that neighbours be well briefed on the issues facing the person with the disability.

I would think the first thing is let your neighbours know, let the people in the area know that somebody is disabled in a house – if you know somebody's around – you trust them enough, know your neighbours and say look, you know, if you hear an alarm go off and I'm not there, ring the fire brigade or whatever it happens to be and be there for that person. If necessary give them a key to your own home if you trust them. (Invercargill, main support person, head injury)

For example, I can't fax if there's a fire, I can't use the TTY. I need to go and ask someone next door if they can ring for me for the Fire Service to come and if there's nobody home next door I have to text to somebody like, for example, my mum. (Auckland, deaf/hearing impaired, female)

Others talked about having disappointing experiences with their neighbours when they did ask for help.

[If you can't ring 111 yourself, how important is it for people who are deaf to actually make good contact with their neighbours, to get support to help in a situation.] *It's a good strategy, good idea to have neighbours to know that they could probably ring for you but some people are very arrogant, and it's like, ah can't be bothered. I would imagine if you asked them could you ring if anything happens, they feel like they intimidate you, belittle you because they're top dog.* (Napier, deaf/hearing impaired, female)

My friend is deaf. She had a gas explosion and she ran to the next door neighbour, banged on the door. They weren't listening. She ran over the road, banged on the door, please help me please 111. But next door refused - it was successful over the road - but they just ignored her. That really happened - she told me the story. I was shocked. (Napier, deaf/hearing impaired, female)

➤ **Disability affects ability to contact and also get message across**

For many people with head injuries the main issue is that they might not be able to think things through as quickly as others. While a persona of confidence can be exhibited at times, in reality this may not be the case, which graphically highlights the dependence of the head injury community on their significant others (if there is one). This flows through into deciding who to contact and also what to say when confronted with the 111 operator.

The thing is, I might not think of the things as quick as others. [How do you get around that?] Have somebody there to help me, because I'm slow. (Invercargill, head injury, female)

Can I just say something which is in connection with this? That when I had my first heart attack, and this is where the head injury comes in, I had it in there and I said to my wife, my arm is aching, and she sat there and literally didn't know what to do. I'm trying to point out that sometimes she doesn't connect with what's happening. And it was a friend who came round and got the ambulance. (Invercargill, main support person, head injury)

Others also mentioned that nervousness coupled with their disability can affect their ability to respond and for the deaf this may impact on how they construct the emergency fax message.

Some people get really confused and not quite sure. I mean the fire is going and they're nervous and they just don't know how to write. (Auckland, deaf/hearing impaired, female)

6.8 Dependence on others

Some respondents noted that they are dependent on others for some of their daily living requirements such as cooking, showering and transfers. The importance of having well-trained caregivers is stressed, with some questioning if their carers were trained in fire prevention and safety.

I think we're reliant on people to be diligent around us, one of your caregivers or family. If they accidentally set the stove on fire or something like that and you're lying in bed, you can't do anything about it. They can run out of the house and leave you in the car, so there's always that. [Is it something you would go through with caregivers about exit routes?] Yes, but you don't always think about it when you're training a new person. It's something we should think about first and foremost, which is a good point. (Auckland, physical disability, male)

6.9 Old/ faulty wiring

Some respondents voiced concerns about old wiring being their main fire hazard. Some linked this back to having older homes with original wiring and older electrical appliances.

Worries because my house is a cottage from the 1920's. I am concerned about the wiring behind the walls. The power board, the mains board, meter board, I am worried about that. Sometimes there's a bit of a smell, it's kind of on again, off again smell. I don't really know what to do about that. I don't feel safe. I have it inside the house, I would rather it was in the garage because I've got nothing in the garage. That's my only concern. (Napier, deaf/hearing impaired, female)

Blind and sight impaired people may also need someone to check fuse boxes and electrical wiring of appliances more often. Having someone to check these out on a regular basis should be reinforced.

The only thing that I get a bit worried about, and I mean this isn't just for visually impaired people, this is any place where there is faulty wiring or your hot water cylinder might overheat or there might be a fault in the power-board or something like that and it's the unforeseen stuff. I always think that there should be a bit more inspection awareness maybe. [So be more aware about electronics?] Yes I think they should try and teach people, without sight especially, that it's probably a good idea to turn something off during the day rather than leaving it on. (Auckland, blind/sight impaired, male)

6.10 Low levels of awareness of what can be done

Knowing what to do and where to go for information are also barriers to taking action for some people with disabilities. During the interviews questions were raised about what actions to take and what to expect if confronted with a fire incident.

As an individual you're motivated and you want it and you go and you find out but there's nothing set up for people like us to go to. (Auckland, deaf/hearing impaired, female)

I think fire people need to be responsible and to give us access to all the information, give us direction like the manufacturers for the alarms, they're all different firms. We don't know which one to go to, which electrician to use. Have we picked the right one? Have we gone the right way? (Auckland, deaf/hearing impaired, female)

You need to improve your skills, you need to know how to keep yourself safe and escape in a fire quickly, and get out. (Napier, deaf/hearing impaired, female)

6.11 Low levels of literacy among deaf community

While only anecdotal some respondents considered that some in the deaf community have low literacy levels as many found the education system more difficult.

We can read, we're quite literate but plenty of other deaf in the community, they can't read. They don't have the literacy skills. There's different levels of literacy throughout the deaf community as well. (Auckland, deaf respondent, female)

Any messages that they do put out to the general public, that they all need to be deaf friendly, so accessible to the deaf community and remembering that a lot of them – their literacy is not that good so it's always best to do it in either plain simple language or through sign language. (Whangarei, support person, deaf)

40 plus year olds tend to have much lower levels of education the younger deaf today are more likely to have had better access to education so this older group in particular need to be communicated with using simple easy to understand concepts. (Interpreter for the deaf)

The Minister for Disability Issues has also noted that public information is more inaccessible for deaf people.

Public information is largely inaccessible to Deaf people, as English is their second language. The average English reading age of Deaf adults is that of an 8 or 9 year old. (New Zealand Sign Language Bill first reading Tuesday, 22 June 2004, 6:44 pm Hon Ruth Dyson)

SUMMARY

FIRE SAFETY AND PREVENTION ISSUES

- Dependence on one ramp exit route
- Dependence of specialist equipment to exit
- Limited mobility affects ability to move away from the house (may not have sufficient strength to do more than get out)

- Cooking is a real hazard for many

- Knowing when to use fire extinguishers and what types re available for those with limited strength

- Installation of specialist smoke alarms
- Lack of awareness of specialist smoke alarms among the wider disability community

- Low income affects ability to pay for fire safety equipment
- Specialist smoke alarms are costly restricting availability to the deaf and the wider disability community

- Contacting emergency services via texting or fax

- Need for support people and carers to be aware of fire safety and prevention actions

- Old wiring

- Limited awareness of what actions to take

- Low literacy levels among the deaf community

7. Increasing fire safety precautions

7.1 Raising awareness

Respondents were asked for suggestions on ways to raise awareness among people with disabilities about the need to take more fire safety prevention actions. The two main ways suggested are to include fire safety and prevention as part of rehabilitation and to provide information from the New Zealand Fire Service.

➤ **Information as part of rehabilitation**

One suggestion is to include information on fire safety and prevention as part of rehabilitation and maintaining independent living amongst those who are newly diagnosed.

When we did our six week – they have a newly diagnosed course that you do – they didn't really touch on that kind of thing. [Do you think it would be useful?] Yes, especially because, with newly diagnosed, they're obviously newly diagnosed and probably in some ways haven't thought of things and might be having new symptoms that they haven't thought that would be difficult if there was a fire. The hospital provides so many different aids, they might think that would be good if there was a fire to help you get out quicker. They didn't really touch on that. If they were to advise they'd probably be good at which is the better model, say for the fire extinguisher thing. (Wellington, physical disability, female)

A lot of people when they're newly diagnosed get a physio and an occupational therapist. The occupational therapist especially comes in and basically she's a safety person. [Did she ever mention fire safety to you?] Not specifically but as far as the cooking thing, safety with cooking, they're big on that. Mostly things like bathroom safety but they do do the kitchen, cooking, hot water, oil, slipping and things. (Wellington, head injury, female)

All the occupational therapists probably need to advise their clients, if they realise there's difficulties there should be some system. (Invercargill, main support person, head injury)

➤ **Information from the Fire Service**

Others suggested education and information from fire service personnel would be helpful.

[What would help raise awareness of fire safety prevention?] I think when a person has, if it's an acquired injury or a congenital, when they're old enough, education, I think for me, was a big thing that helped me along. So you get educated. It doesn't have to be like you've just had an accident you know, you've got to watch for fires. It's just when it comes to the time okay, you're moving into a house now so these are the issues we need to look at and educate, I think education is a jolt. [From who?] Yes I know, that's what I'm wondering, is there someone from the Fire Service that can come and educate or someone that you can take in as a disabled person to educate them and then they can go out to the disabled community and educate other people and say well, I just want to come in and make sure that you're safe sort of thing. (Auckland, physical disability, male)

[What else would help you take more fire prevention actions?] Probably if I was given information from the Fire Service or whatever, the MS Society or something, then it would trigger things that you don't do or you're not aware of. You kind of think of your own things relevant to you. For example, I won't always live here so if I lived somewhere else in the future there might be things that I didn't have to think about here but I'd have to think about there. (Wellington, physical disability, female)

7.2 Sources of fire safety information

➤ **New Zealand Fire Service**

When asked where they would seek information on fire safety most respondents nominated the Fire Service and possibly the local brigade. The internet is also an increasing source of information with some mentioning the Fire Service website.

[Where would you go to find out more information about fire safety and prevention?] I guess, I'd think the Fire Service. I guess, when I thought about it more, probably there's disability places that would have the information, the MS Society might even, number one the Fire Service. (Wellington, physical disability, female)

[If you ever required any information on fire safety where would be the natural place that you'd go to?] Fire station is where we pretty much head to now and that's where they've got the promotional material available but, having said that, if I wanted to get it immediately I'd go to the website. It's all on there fire safety information, it's quite well set up. NZFS, www.fire.org.nz. (Auckland, physical disability, male)

[If you wanted to find out more about fire safety and some of these things we talked about where would be the first organisation that you would go?] *Probably the Internet actually. I'd probably look on the Internet. Maybe the New Zealand Fire Organisation or whatever it's called, check that out. I think that if I had needed any equipment I would probably go through the Fire Service not another deaf place service, maybe they could help with information, but for the equipment I'd go directly to the Fire Service. I think.* (Auckland, deaf/hearing impaired, female)

The New Zealand public has huge respect for the Fire Service. In UMR's omnibus survey of performance ratings of government departments, the New Zealand Fire Service heads the list with 90% of the general public declaring the New Zealand Fire Service does an excellent or good job. (Full details are included in Appendix Two). This respect for the Fire Service is also shown by people with disabilities. Information from New Zealand Fire Service is well regarded and is very likely to be listened to.

I've got a lot of respect for the Fire Service and for all the emergency services. If there were able to do something like that, that would be great and I would certainly take heed of it. At the same time, I'd be not wanting to put them out or whatever. (Wellington, physical disability, male)

I asked them to put smoke alarms. We had a good yarn when they came. [How did you find that?] Excellent, they were wonderful. (Invercargill, main support person, head injury)

I think the public perception of the fire brigade is very high, pretty good. (Invercargill, main support person, head injury)

Many respondents also spoke of firsthand experiences with the Fire Service through seminars and support groups that Fire Service personnel have spoken at. A number of respondents had also had smoke alarms installed by their local Fire Brigade. These respondents were quick to praise the fire service for the work they are currently doing in the community to raise awareness.

Visiting local support groups is seen as a good way to gauge how knowledgeable and prepared the disability community is.

[Would it be worth having someone to visit those groups?] *Yes, visit the groups, not the individuals that visit the groups. Certainly you would find out from those groups whether they had smoke alarms or not and then somebody has then got to decide who is going to come and put them in. A lot of the fire stations would do that I'm told, for elderly and disabled so if people are willing to go on a list then that's the way to do it is to have them on a list.* (Auckland, physical disability, male)

Some but not all respondents knew that the local Fire Brigade would install smoke alarms and also monitor them annually. Many have also sought advice from the local brigade on which smoke alarms to buy and where in their homes to install them.

[Who put your smoke alarms in for you?] *We did. We purchased them from the Fire Service and they told us where we needed to locate them to give maximum coverage. [Did they come up here?] They did come up here and, because it's not a huge house, they said probably the safest place was to put it in the hallway down near the bedrooms, so if someone was cooking and burnt something we wouldn't suddenly get the fire alarms going off or anything like that. We live down in the bedrooms most of the time so that would give us good coverage.* (Wellington, physical disability, male)

[Who installed?] *The Fire Department staff, they were linked in with the Deaf Association, they visited my house, they did that.* (Napier, deaf/hearing impaired, female)

[What got you putting smoke alarms in?] *Guess who? The fire brigade. They came around – they do it for free. Anybody that wanted it done, the fire brigade put it in for them. [Yes they did it for a few people. (Interjection)] I think it was the City Council doing it.* (Wellington, blind/sight impaired, male)

[How do you check it?] *They check it every three months. They've just got to press the button on it and see if it goes or not. They change the batteries for you. They advertise over the radio. They work on the premise that if you get new batteries when you change your watch, you've got to get new batteries when you change it back again. Daylight saving so that's about the length of time you should. That's the rules you go by.* (Invercargill, blind/sight impaired, male)

➤ **Disability organisations**

Disability organisations are also well recognised for the support they provide to people with disabilities. While not huge providers of information on fire safety and prevention currently, they are viewed as logical providers of information by most respondents.

[Where would you go to find out more about the type of equipment available to deaf people in the event of a fire] *I'm not sure. I guess I'd go to the Deaf Association and ask for information but they don't have that – in fact they have limited information. There should be a lecture or some sort of service or something should be posted out from the fire service and given to us rather than us having to rely on the Deaf Association for the fire service information.* (Auckland, deaf/hearing impaired, female)

[If you're looking for information about fire safety, who would you go to?] *I'd go to the fire people, the fire brigade probably. Or, you know, I suppose the Blind Centre would know all about it. [Think Foundation for Blind would have information?] Well this is the thing that, I think that they should, and I'm not sure whether they have or not, but I would ring probably.* (Invercargill, blind/sight impaired, female)

[If you wanted to find out more information from a deaf perspective on fire safety, where would you go?] *To either the Hearing Association or the Deaf Association.* (Whangarei, main support person, deaf/hearing impaired)

One respondent noted that Deaf Association of New Zealand receives government funding to run education programmes among its members and suggested that fire safety education initiatives could be included here.

The government provides funding for the deaf association to run community education initiatives so there may be some room there for education on fire safety. (Interpreter for the deaf)

7.3 Disability database

One idea tested among respondents was the development of a database held by the local Fire Brigade or emergency services 111 system, which people with disabilities could join. It would be voluntary with the main objective being to inform emergency services that a person with a disability was resident at that address in event of a fire call-out.

“Someone that I spoke to raised an idea of having a database that is connected to the 111 system. If someone from this address dialled 111 it would come up and be directed through to the fire service. It would come up on the 111 call that there’s two people at this address who are in chairs (blind, deaf, had a head injury etc) and that information will be given to the fire truck so they would know before they got to the fire that they were going to have two people in chairs in the house that they were going to deal with.”

Surprisingly a number of respondents thought there was a similar system already in place.

So they haven’t got that set up yet? [No, not yet.] [I thought they had. (Interjection.)]. Yes I thought we had. (Napier, deaf/hearing impaired, female)

Because I thought, if I rang Telecom to tell them I have a disability, I’m deaf, so they know that, if you ever made a 111 call, they would know straight away that person is deaf, they can’t call on the phone. I have heard that was going to happen. [We have talked about it in the past. (Interjection.)] I’m not sure if it’s happening. (Napier, deaf/hearing impaired, female)

➤ **Fire Service is better prepared**

There is strong support for this database among respondents. Respondents see the main benefit being the assurance that the Fire Service would be forearmed with important information such as person in a wheelchair, blind, has multiple sclerosis or has a head injury etc.

[Database that is linked in with the 111 computer system that would mean if someone phoned up from a particular address it would come up on the 111 system whether they were physically disabled or sight impaired etc.] *Yes I've always thought that, always. I've never rang emergency services and I hope I don't have to, but the first thing I'd probably say to them is that I'm totally blind and I have a guide dog. I think there should be more on the database. In actual fact if you ring 111, whether your number is unlisted or not, your phone number will appear so there is also space in that bit of the system for other information down a right of way or up a hill in my instance, you know person has a guide dog.* (Auckland, blind/sight impaired, male)

This would in turn provide a more knowledgeable response from the Fire Service.

The more pertinent information that you get before you arrive at a call the better you are prepared to deal with the incident when you get there. We're in the age of information. As a matter of having accurate information then filtering out what you want and what you don't want, I can see it's the way it's going to go. (Auckland, physical disability, male)

[What would be the positives of having the database like that that people could opt in on so that the Fire Service did know?] *I think simply the fact that it's a flag for the Fire Service, that this person may need assistance with exiting the building or whatever else.* (Wellington, physical disability, male)

That is a good suggestion. [Why do you say that?] If we rang now we'd be in such a panic we wouldn't say, "I can't see very good". You'd be saying the fire so and so wouldn't you? You wouldn't think to say that you couldn't see. [You'd be too concerned in getting out. (Interjection)] Yes, that's it. Get the message out and get away. If we rang they'd know that we couldn't do very much ourselves. (Invercargill, blind/sight impaired, female)

➤ **Provide reassurance**

Respondents also said they would feel 'safer' just knowing that the Fire Service is aware of their disability.

This is a great idea, it would help the fire service to know what they are attending and I would feel safer and not just a statistic. (Wellington, physical disability, female)

That means at the local fire service they'll have my information. So you ring the number and the number's linked to the database that they have and who lives at that street and the information about that person. I'm asking "hello, hello, is anybody there" and there's no response and I can see that the person's deaf because it's linked to the database. (Auckland, deaf/hearing impaired, female)

It would be very comforting to know that they're on their way and understand your condition and they won't be telling you to run out. (Invercargill, blind/sight impaired, male)

➤ **Could be useful for other emergency services**

Another benefit of collecting this information is that it could be available to other emergency services as well.

[Do you think that will be a useful thing to do?] Yes everything like that is useful, good to have. Putting that on it should be bigger again because it's not just for the Fire Service, it also can be for the ambulance at the same time. It's a safety factor for the Fire Service or the ambulance. I think it's good. (Auckland, blind/sight impaired, male)

➤ **Already being collected by some organisations as part of customer service**

Some respondents noted that information on client disabilities is already being collected by a number of organisations as part of improving their service to people with disabilities.

I have been asked by the bank and, in the past when I've logged in from my phone banking and that sort of thing, it's come up on the screen that I'm a legally blind customer. (Auckland, blind/sight impaired, male)

I think it is like Ticketek, who already know when I ring them that I need a wheelchair space when buying a ticket. It means that the Fire Service will come prepared for a disabled person. I would rather they know than no one know about my disability. I have got over feeling concerned about people knowing now. (Wellington, physical disability, female)

➤ **Needs to be voluntary**

Many suggested that for the system to be successful it would need to be voluntary. This is mainly to overcome any concerns about confidentiality and also privacy. While most could see the benefits, there will be some people with disabilities who do not want to be identified in this way.

I know that there have been many people who wouldn't like the idea of giving out private information because many people are jealous about retaining control of that. (Wellington, physical disability, male)

I probably wouldn't, no. I'm a bit reluctant to let them know where every move you go is going to be monitored and monitored by the fire service when you move to another house and they want to know where and save some automatic update system. Well I think that's a bit much like big brother for me. I'd rather be left to get on my own and how to look after myself and take some self responsibility. Having said that, if there was a fire in my house and I was trapped I'd certainly be letting the fire service know that I couldn't get out and the reasons why by ringing on a phone. (Auckland, physical disability, male)

➤ Confidentiality

Participants also needed to be assured of confidentiality and that only emergency personnel can access the information. Most respondents considered the Fire Service or the 111 system as secure.

Confidentiality must be maintained and only professionals should have access to that piece of paper. Not anybody, it should be just professionals, officials all the time. Never in the phone book. Never put that information in the phone book. (Napier, deaf/hearing impaired, male)

Needs to be similar to the telephone thing now when you block out your telephone number if you don't want people to know, except the fire service, you block out your number if other people - [So if it was a system where it was up to you to phone up the fire service database and say look I live at such and such address?] That's fine. That would work fine, yes. That would be good. People would know when they arrived, you wouldn't get a sudden shock of somebody wheeling in a wheelchair going down the hall and the place is full of smoke and you're trying in your wheelchair to get out. (Auckland, physical disability, male)

If people have got a worry about it I don't suppose there's any bad eggs in the fire brigade who would take advantage of that sort of emergency and come and break into your house or something. [Would that be a concern for you?] Breaking in? [If the Fire Service had a list?] No, not to me. There's always a rotten apple in the barrel somewhere. [Would it stop you?] No, no, no, not at all. [Would you put your name on?] Yes I would. (Invercargill, blind/sight impaired, male)

While privacy and confidentiality are mentioned as concerns, a number of respondents noted they are already identifiable by their local communities as having a disability so were less concerned about that than having the Fire Service turn up unprepared for their type of disability.

[Any concerns if the list gets into the wrong peoples hand?] On the other hand, someone can see me walking with a walking stick to my front door and know a mobility challenged person lives here and burgle me but you can get burgled anywhere. That's not because the Fire Service has you on their list. Probably more confidential than walking to your front door with a stick or parking in a mobility park or whatever. (Wellington, physical disability, female)

I have no concerns about security in the sense that everyone in the street knows I have a disability, they can all see the ramp into my place already. (Wellington, physical disability, female)

[Confidentiality, lack of privacy: is that a big concern?] What's private? It's only your name and address, that's it. Same with the phone book. It's no different. (Auckland, deaf/hearing impaired, female)

[Could be misused?] Well they do know, because I've got a guide dog and everybody knows anyway and it doesn't sort of worry me. But I think most people are very kind and very nice that I know. (Invercargill, blind/sight impaired, female)

One respondent mentioned that her medical alarm service already identifies residential properties very visibly with a sticker on her letterbox.

My medical alarm one, I've got a sticker on my letterbox. They put it on. [So everyone knows then?] If I ring for help they notice it – they see the sticker in the light. There's a sticker on the letterbox and they said to me if I rang for the ambulance and couldn't talk, they would organise it – the sticker on my letterbox tells them exactly what house it is. They're not running around the street looking for the house. (Invercargill, blind/sight impaired, female)

➤ **Recognition that database will need to be kept up to date**

It is noted that the main difficulty will be maintaining the integrity of the database as people move residences.

I see the downside is there are courses of keeping that information up to date. As soon as you put it in there it goes out of date pretty much. When you move on people change address or whatever, more people arrive. That would be a mammoth task to keep updated because it wouldn't just apply to chairs, it would apply to anybody with a disability. (Auckland, physical disability, male)

What happens if you move house? That's an issue. It's like I'm tied to that house. If I lose that contact and I move to this house and they send someone to the old address – [Would be up to you to update it?] It could be expensive. (Auckland, deaf/hearing impaired, female)

7.4 Sources of funding for fire safety equipment

Respondents were also asked to consider what sources for funding might be available to help support them access more fire safety equipment and services.

ACC is seen as an obvious source of funding as they are in the business of preventing accidents from occurring. There are suggestions that ACC should take a more active role in helping people with disabilities take more fire safety and prevention actions, such as funding fire safety equipment including fire extinguishers and smoke detectors for specific disabilities.

[Anywhere else that you think the funding could come from?] The Ministry of Health through the Disability Commission. I don't know about the MS Society because they're so broke anyway. Just myself personally, I think ACC. It is a fire safety thing so you kind of think the Fire Service should but, on the other hand, I tend to think ACC should because it's a prevention issue and it's about injuries. (Wellington, physical disability, female)

I think ACC would come to the party to make sure everything was safe and it's just things like extra ramps. (Auckland, physical disability, male)

[Who would be the appropriate government department to take responsibility for that?] *Which one is responsible for the prevention of injury? Maybe under that one.*
[ACC] *Yeah, like if there's an injury, they send you an ACC claim, that's right, so maybe they should give – you're talking about long term. It's going to save them money in the long term, to prevent injury.* (Auckland, deaf/hearing impaired, female)

Community trusts, Ministry of Health and the Fire Service were other possibilities for funding of equipment that were also suggested.

[Where would you think that sort of funding should come from?] *Ministry of Health. Could be involved in the Ministry of Health for safety reasons. Or community trusts like [Name] plus the councils for each area.* (Auckland, deaf/hearing impaired, male)

Now for the trust that I was talking about before, they've been giving funding to hearing. Maybe they could start giving funding to deaf people as well in the Auckland area. (Auckland, deaf/hearing impaired, female)

The Ministry of Fire Prevention, maybe. [New Zealand Fire Service] *Yes, definitely. Their profile's quite high and we all see them. Fire prevention, fire safety. It's really out there and it's huge so really maybe they do need to take on some of that responsibility.* (Auckland, deaf/hearing impaired, female)

SUMMARY

INCREASING FIRE SAFETY PRECAUTIONS

- Provide fire safety information as part of rehabilitation
- Fire Service information/ tips and advice for people with disabilities
- Information on disabilities held by emergency services
- ACC seen as obvious provider of funding for fire safety equipment

8. Communicating fire safety

6.1 Appropriate communication channels

➤ **People experienced in disability to promote the message**

Some respondents considered it important to have people who have experienced disability to help develop and promote the fire safety messages to people with disabilities. This viewpoint was most strongly held by those with spinal injuries.

It would be good coming from someone sitting in a chair that has had the background. That has had the safety background and all that sort of stuff but also with that as the background of being in a chair, I think they would take it on a little bit more because someone could say, well you don't know. (Auckland, physical disability, male)

You've got to understand, like I'll speak for an acquired disability like for a lot of blokes, I'm not sure what it's like for ladies, but for a lot of blokes, an able bodied comes and tells you this, that and the other and you've got to watch out for this, you have a bad attitude, well I did and I know just about everyone in my ward did and we just go, stuff it we don't care and all that sort of thing. People that have been there, done that. (Auckland, physical disability, male)

One respondent suggested that ex-fire service personnel who have a disability could be very helpful in promoting fire safety messages and also educating the Fire Service about the needs of people with disabilities in the event of fire.

This is one way that ACC or the Ministry of Health could get involved is by employing somebody like [name] who was here a wee while ago. He was in a chair and he's been a fire chief for years and years, they would respect someone like that coming into the house. (Auckland, physical disability, male)

Others, however, are fully prepared to accept messages from able bodied Fire Service representatives. Interaction with able bodied Fire Service representatives is seen as positive, providing opportunities for mutual understanding.

I think if we talk about basic messages then it's another opportunity for blind people actually to interact with whoever is at the Fire Service, and for them to learn about blindness and things too. (Auckland, blind/sight impaired, female)

➤ **Training Fire Service personnel in disability issues**

Having Fire Service personnel trained in basic sign language is suggested. Simple instructions and terms could be taught to all fire officers as part of their regular training.

Sign Language. It's funny because I do actually teach Sign Language. I have a Sign Language class and one of my students works in the fire brigade. She's always at me, giving me magnets and talking to me and I'm starting to think I should take some action really but I mean the fact that she's learning Sign Language is making me actually more motivated to think that I should do something. I'd actually prefer to be able to talk directly with the fire people themselves than have to go through a third person. I think that maybe the people that work in public services like fire and stuff, should actually have some basic Sign Language themselves and then, if a fire happens, then they can communicate with you because, otherwise you're a deaf person standing there wondering what the heck is going on. They might be able to tell you things like go outside, wait, do you have somebody inside, are there any pets inside, they should know some basic signs like that so they can communicate. (Auckland, deaf/hearing impaired, female)

Fire Officers could undertake deaf awareness training and learn such things as how to get the attention of a deaf person. (Interpreter for the deaf)

There is also a more general call for fire-fighters to receive training to help deepen their understanding of the needs and communication styles of different disability groups.

They probably do need to have education on that. It would have to be ongoing because you'd have to get the roll over firemen and all that sort of thing the same as any other organisation. You've got to have ongoing training for them. [Somewhere in their training they should be taught a little about understanding the different disability groups?] Yes. (Invercargill, main support person, head injury)

[Is there anything else that the fire service can be doing to be more connected with the deaf community on these fire issues?] Being aware of the deaf culture, for example like the police – they just need to be aware of deaf people because they may be talking and trying to – they could gesture to us ... communication is really important because how are they going to know if we're injured or hurt or where to go. (Auckland, deaf/hearing impaired, male)

I think they need to have on-going workshops with deaf behaviour, because deaf culture is different. [So the workshops for their own staff or for you people?] No the staff. We don't need workshops. Staff training for the fire service. [It should cover all disabilities.] Yes. (Napier, deaf/hearing impaired, female)

➤ **Fire Service open days inviting those with disabilities**

There were suggestions that an open day at some of the main Fire Stations where disabled people were invited to attend could be beneficial. It was thought that these could be promoted through local disability group newsletters. In this instance, it was stated that South and West Auckland would be key areas if wanting to target the deaf community. The added attraction of a cup of tea and some food would help to increase participation.

You could have an open day at Fire Stations where the big deaf populations are in South and West Auckland and invite the deaf community to come along to learn more about fire safety. You would need to have interpreters and put on a cup of tea and some food as an attraction – this could be promoted through the deaf organisations who have monthly newsletters. (Interpreter for the deaf)

➤ **Fire Service website**

If promoted well, another suggestion was the Fire Service website as a reference point for information. Again, having a video clip with interpretation for deaf people would be helpful.

[Are there any other ways the Fire Service can get information out to the deaf community?] *Perhaps you could make a Sign Language video clip and put it on your website but not all the information, just something important. You might be able to put clips in there and people signing the information, I think that might be more valuable actually than a DVD because a DVD could just end up sitting in the corner gathering dust. (Auckland, deaf/hearing impaired, female)*

[Video clip on the Fire Service website?] *You mean like in sign? [Yes, someone signing] Yes, and then you could advertise it as well because even students at university, they have this communication that's called a blackboard where all the deaf people – we can put something on the blackboard and it's almost like a communication board for us and that's the students at Auckland University. Maybe we could advertise and say that there's a fire safety service website with interpreters on it and they can go and check that out for themselves, put that on the blackboard. (Auckland, deaf/hearing impaired, male)*

➤ **Seminars and workshops/ speaking at support groups**

There is some support for seminars or workshops where people can learn more about what fire safety actions to take.

[In terms of promoting it, what do you think would be the best way to promote it? What sort of sources of media?] *Maybe they could have, once a year, a tutorial or something, a seminar. Another thing we can do, the disabled people themselves, is to get together and brainstorm all the risks and feed off each other the different experiences, discussing all about a fire. (Auckland, physical disability, male)*

[Anything else?] *Workshops, yes. Workshops are really valuable. Workshops for the deaf as well as for the fire service – on-going and raise awareness. (Napier, deaf/hearing impaired, female)*

[Is there anything in particular that you think the Fire Service could be doing in terms of being more fire prepared in the community for helping people who have sight impairments?] *We need to get involved with something like the Blind Foundation. Pull everybody together and just run them through a course on fire safety because there is a big question mark out there what fire safety is there for, blind or disabled people, so you can do something to involve them and it could be a job just to refresh what they can do or how to react because the natural thing is higher panic, so they go and do that where they have some pre-answers in their head or commonsense.* (Auckland, blind/sight impaired, male)

In Napier and Auckland the local Deaf Association has run workshops with some success for their members. Some workshop attendees were also provided with fire safety equipment as part of their involvement in the workshops

[So if these are the main groups to go through, what's the best way to get information out to those groups? Is it through written like leaflets, or is it through discussions or conferences or meetings?] *I think the best way to contact deaf people and get them involved would be maybe through presentations. Through emails and letters, we can't be bothered reading them, but if there's a presentation, looking at visual aids, I think that would be – you can dish out flyers through presentations and it's specifically related to the fire services.* [Examples where it's been done particularly well] *Yes I have. At the deaf club, they organised one for – there was a presentation actually at the deaf club on fire safety. They did a little presentation then. We had to pay. The equipment they were offering we had to pay for.* (Auckland, deaf/hearing impaired, female)

We have a special alarm that's given from the Deaf Association and they have a flashing light and the vibrator. The life expectancy is about 10 years. [The smoke alarm flashes and vibrates the strobe light. (Interjection)]. The strobe light, in the box it has a little flashing light. And if the battery's flat, if it's not charged, then there's another battery that's in there, lasts about 10 years I think. [That's right, that's right. (Interjection)] (Napier, deaf/hearing impaired, female)

Some disability groups, however, find attending group meetings difficult and other means of providing them with information would need to be used as well.

[Do you think people would go to seminars or workshops?] *I think the problem you would have found out when you were trying to organise these meetings, people have different degree of disability and find it hard to get there. I don't drive at all, some people drive but once they get to where they're going, they have to have a wheelchair or whatever to get there so it's very difficult to have a seminar that everyone would be able to go to.* (Wellington, physical disability, male)

A number of respondents had attended support groups where fire fighters had given talks on fire safety and prevention. It is very clear that respondents who attended these were very responsive and found these talks informative and helpful.

Maybe the fire unit just visit the Deaf Auckland's Club and do a presentation because deaf would actually watch it. They can have some understanding for safety before the fire occurs, and they know what to do if it does happen and things, that they need to provide. What they'll be getting back from the deaf community is, its seeing how the community works together and how the community works. (Auckland, deaf/hearing impaired, female)

➤ **National disability conferences**

National disability conferences are also good places where the Fire Service could promote fire safety and prevention awareness actions.

[Are there any centralised meetings or discussion groups that could also be useful for the fire service to be involved in or perhaps put messages through, that the deaf take part in?] *Yes. Certainly at the Deaf Association, the local branches, their AGM or the national group's AGM. They usually have a conference type, and the New Zealand Federation for Deaf Children – we have a conference and AGM every year and all our member groups have AGMs so that would be a good place to get involved, having someone talk. [Is that much of a source of information for deaf people, do you know?] Yes, very big. (Whangarei, main support person, deaf/hearing impaired)*

➤ **Promotion through disability organisations**

Using national disability organisations is a good way to get information out to people with disabilities. Most organisations have regular newsletters that could include information on fire safety and prevention. Respondents also noted they are more likely to trust the importance of the information if it is received through the disability organisation.

[What is the best way to go to educate people in chairs about fire safety?] *I think agencies because they deal with these people. (Auckland, physical disability, male)*

[Best way of raising awareness?] *I think sending out through the disability groups maintains a degree of professional oversight of it and also it's something that people trust, whether they use the MS Society or whether they use any of the other societies for people with disabilities, they know what they are about. They know the people involved in them. There's a degree of trust with them. (Wellington, physical disability, male)*

[So how do you go about posting it out to everyone?] *If they came here through Deaf Association we're happy to distribute them that way. It's important for us to give them out to the deaf community and we know that there's a little bit of information getting out there linked to safety, plus here we've got commercial links maybe with an explanation and simple language too. When I'm working I could explain the process to people because maybe the client doesn't understand so I can sign what's there. It's a visual communication again, and then they'll feel more confident and then maybe they'll go out and practice and tell somebody else. (Auckland, deaf/hearing impaired, female)*

The only thing the Fire Service's safety will need to do is give the Foundation the computer files because, the New Zealand Copyright Act does allow us to produce it and then we don't have stacks and stacks of it lying around. What we then do is in our catalogues, advertise. Like at the moment, we've got, you know, that emergency preparedness stuff, people can just ring up and say can I have an email or large print or whatever copy of the latest emergency preparedness documents or whatever, or Housing New Zealand just brought us some stuff. (Auckland, blind/sight impaired, female)

Disability support groups such as deaf clubs are also good places to disseminate information.

[What would be some of the best ways that the fire service could get in contact with the deaf community to spread information about fire safety?] *The New Zealand Fire Service should contact the Deaf Association and also schools, deaf school, and promote it through the Deaf Club, wherever deaf people are in the communities because it's easy contact. With the Deaf Association it's limited contact, whereas if you're going into the schools and deaf clubs, you're reaching out to a wider community.* (Auckland, deaf/hearing impaired)

One respondent noted that there is an organisation established for carers for all disabilities that could disseminate information on fire safety to a wide section of the caring community.

There is a New Zealand Carers Society¹ throughout the country believe it or not. A lot of people probably wouldn't even know about it. It's actually situated in Mangonui up in the North Island and I'm a member. There's also one in the community house in Dunedin in Moray Place – a New Zealand Carers' Society, and they've actually just started recently putting out a carers magazine – you'll probably have a copy would you [name] and it covers a lot of not only products you can use, various stories about other people and I'm sure if the Fire Service wanted to get involved and any other organisation wanted to get involved and they cover people with all sorts of disabilities from head injury right through. They've only had one copy and another magazine is coming out next month providing they get the funding. (Invercargill, main support person, head injury)

➤ **Promotional booklet on safety tips geared for specific disabilities**

Many respondents commented that being involved in the research had highlighted the issues for them and helped them to discuss with caregivers and family what steps to take in the event of fire.

It's the same as, like when before you became in a wheelchair you think it's not going to happen but it does, so yes today has raised a few concerns with me about my house. (Auckland, physical disability, male)

While a lot is common sense, many thought people with disabilities need to think about it a bit more than the average person. Having a booklet on safety tips geared for specific disabilities distributed by the main disability organisations and also by those supplying services to people with disabilities, such as manufacturers of power chairs was suggested.

¹ Carers New Zealand

<http://www.carers.net.nz/modules.php?op=modload&name=News&file=index&catid=364&topic=>

Freepost 3739

Mangonui, Far North 0557

New Zealand

I think that they can create a small booklet with all the safety tips for people in chairs and make it available at places like the Spinal Unit and any other disability organisations that are involved with people in wheelchairs, power chairs or nanny chairs. [And give them to organisations that make those chairs they would give out when they sell?] And organisations that make them, yes very important, because they can give them out as part of the package with the power chair. (Auckland, physical disability, male)

You can certainly make up specific pamphlets and stuff. Wheeling to Fire Safety, we did that years ago you must have seen that one? [What's that?] It was a pamphlet made, Wheeling to Fire Safety. It's an old one but see if you can find it. [Can you remember when that was done roughly?] It will be 10 years ago or a good 15 years and they had a guy in a wheelchair on the front of the cover and they had a whole lot of things that he should and shouldn't do. Agencies, or if you know about people in chairs you can mail them out when they mail out stuff. ACC can mail them out as well, I suppose. (Auckland, physical disability, male)

Information about the fire service, how do we keep ourselves safe and protect ourselves. What do we do in the event of a fire and who can we contact. The numbers. Maybe like a list of what to do that we could have by the phone on the desk, just very easy and simple. An escape route, how to get out. For our own safety in our environment. We could put in something that we can see quickly. Even a plan for deaf people, telling us how to organise a plan. What we need to do, where we meet, out by the letterbox for example. So setting up plans and teaching us how to set up plans for escape routes. (Auckland, deaf/hearing impaired, male)

Some of the information requested included:

➤ **Equipment, what is available, how to apply for it, where to get it from**

What is available, for example, if in future fire extinguishers were available then the information on how to get that and how to apply for it or whatever. Just maybe a brochure or just bringing people's attention to what can be. I think most people know whether they're disabled or not, what are dangerous things and what aren't. It's not so much bringing their attention to that but more if there's a fire and you've got a mobility problem then you need to have a plan. Think about it more than the average person. (Wellington, physical disability, female)

➤ **Developing an exit plan and what should be in that plan**

[Additional information that would be useful for people like yourself?] Probably just advice on the best ways of getting out with mobility or sensory things, like maybe prioritise the best way to move out for different people. If you were just like me you can walk. If you can walk just crawl under the smoke but if you were in a wheelchair then drag yourself. Just the best way to get out if it is in the middle of a fire. Sort of what to do. (Wellington, physical disability, female)

➤ **Guidelines on how long you have to get out**

[What would be helpful from the Fire Service?] *Guidelines as to how long one has to get out of the house – I think it's two minutes or something. Now we heard that from somebody. Now two minutes would really be pushing it for us. I probably should think more about that, how to get out of the house.* (Invercargill, head injury, female)

➤ **Statistics to help understand the need to take preventative action**

[What key pieces of information do you think would be useful for the Fire Service to get out to communicate with the deaf community?] *I think equipment is number one actually, really. [And that includes cost and all that type of stuff?] Definitely yes. We want to know definitely what the cost is plus perhaps the statistics, that might be quite good because information at times can be very murky but if you have stats, like 70% died every year because they didn't have this blah blah blah, I mean just really short brief statistics with pictures could make quite an impact on people.* (Auckland, deaf/hearing impaired, female)

➤ **Programme on TV One**

Another suggestion is using the regular disability programme on Television One to promote fire safety and awareness among people with disabilities.

Another thing I was going to say is there's a weekly disability programme on TV One which I do watch most weeks and I don't think I've even seen a fire safety thing on that. [Good place to have something?] I tend to think most people that watch it watch it because they have a disability. It's probably the place where you're going to get their attention more than anything else. If you had a fire safety documentary they might not watch a general one. If you had a disability programme with fire safety they're more likely to see it. It covers everything from blindness to IHC to wheelchairs. It's a huge range of people. [What time of the day is that on?] It's 9.30am on TV One on a Sunday. (Wellington, physical disability, female)

I suppose the point is, if the Fire Service approaches an agency – know of the programme called Attitude on a Sunday morning? I know it's a very specific disability related slot but what sometimes happens, if there's anything on if our PR department know beforehand about what's going to be on, we get the notices out to send out to email groups and try to let members know what they can expect so even though it's probably just one other avenue, it's still one that if we know something is going to come up we can try and let people know. (Auckland, blind/sight impaired, female)

That Attitude programme, it's on a Sunday morning, is another programme that could help – they'd be interested in it. (Invercargill, main support person, head injury)

8.2 Disability specific communication channels

The advantage of using a disability organisation to help spread information about fire safety through the disability community is that these organisations are experts in reaching their members and have several proven communication channels for reaching people with different disabilities. This is particularly important when communicating with those who have sensory disabilities.

The New Zealand Royal Foundation of the Blind

The Foundation of the Blind have a number of key communication channels for sending information to its members. Blind members we spoke to indicated that the channels below would be appropriate for fire safety messages:

- ✓ Talking books and audio magazines
- ✓ Telephone Information Service (TIS), which provides information from government departments and other agencies and is also used as a public notice board
- ✓ Regular national and regional newsletters.

Deaf Association of New Zealand

The Deaf Association also works to make sure public information is accessible to its members. They also have useful channels for communicating with members such as:

- ✓ Regular national and regional newsletters
- ✓ Lobbying for the production of DVDs
- ✓ Translation advice
- ✓ Provide adult community education, including topics on community knowledge.

8.2.1 Deaf community

➤ **Key messages in sign language**

While many of the discussions focused on what might work among the disability community in general, it is clear that the deaf community wants more information in sign language.

Sign language for many deaf people is their first language and written English is their second language. To get the message across to deaf people having sign language linked into key messages is critical.

[Why would it be important to have signing on the Internet when deaf people can perhaps read it?] *Yes of course deaf people can read, but sign language and English are quite different languages. Sign language doesn't follow the same grammatical structure of English. It's quite different, it's around the other way almost, so for deaf people it's really quite difficult. A large number of people don't have good English, they prefer to see things in sign language because that's their first natural language and they're comfortable, whereas English is their second language and some deaf people like my father, he doesn't really have good English and if it's very complicated he kind of gives up and walks away or he asks my mother what the words say. (Auckland, deaf/hearing impaired, female)*

[What's the best way to get information to deaf people if they can't read?] *Signing. A video or a DVD. On TV. Face to face is much better. Signing is much, much better.* (Auckland, deaf/hearing impaired, female)

You have to make sure that the level of English matches up. It needs to be simple, everyday English words. It doesn't need to be high jargon stuff. If it's a person with English as a second language, word it that way around. Then it's not just deaf using it, it's everyone, but it needs to be simple and make sure that other people can pick up – match it with the people where English is a second language and then everyone would have the information equally. (Auckland, deaf/hearing impaired, female)

[Best way for fire safety messages to be communicated to the deaf community] *Through sign language and simple written brochures, flyers, whatever. But I think sign language, a sign language version would be the best option.* (Whangarei, main support person, deaf/hearing impaired)

➤ **DVD with sign language for deaf community**

DVDs are also useful when communicating with the deaf community. The DVD that outlined the process for the general election was given as a good example of how this could be done. <http://www.elections.org.nz/languages/sign-language.html>.

[One done for the election] *Yes, there was one.* [Was it a good example of how people can get messages across to the deaf community?] *Yeah it was. There was a deaf person who was signing but also subtitles. We also had forms. It was fully explained on how to vote. It was very visual for us and clear. The election DVD was very clear. It was clear for me.* (Auckland, deaf/hearing impaired, male)

Like for example, the election year they had it on DVD and they had people visiting all the deaf clubs. They set up like an open night to explain all this stuff. I thought it was reasonably good actually, but like I said, with the DVD most people get it and then it gets lost. It was really nice, it was really good to actually have that option for the election but it's really hard for me to say because I'm just speaking for myself. I watched it once and I thought it was good enough but I don't know if I'd watch it again. (Auckland, deaf/hearing impaired, female)

When they have the elections they've made a video for deaf people through sign language on how to vote. [Did you see that video?] *I have seen it, yes.* [In your opinion was it done correctly? Was it informative and clear enough?] *Yes.* [So the fire service could perhaps use that or learn off that as an example of how they go about it doing it] *Yes.* (Whangarei, main support person, deaf/hearing impaired)

DVD's have been done by the Electoral Commission, I think the Ministry of Social Development have done one and I also think ACC are doing one as well. (Interpreter for the deaf)

Another DVD mentioned for the deaf was one produced by the Mental Health Foundation and Office of Disability Issues on mental health.

[Apart from the example of the election video, are there any other examples like that that you've seen that have been particularly effective that have been used to communicate with the deaf community?] *There must have been. There's a mental health one I think. I've just seen that recently. I think it was mental health.* (Whangarei, main support person, deaf/hearing impaired)

Any DVD would need to incorporate both sign language and be very visual to ensure that those who are not proficient at signing also get the key messages.

I've seen the Fire Service brochure, they have different languages in there, Cook Island, all the Pacific languages, and most agencies do have information like that in different languages. Sign language would be too hard because sign language is a visible language, so I'm thinking that maybe you disseminate it through DVD's to people. Deaf people, would they really watch it? Yes, so I'm thinking along those lines. (Auckland, deaf/hearing impaired, female)

Maybe if you had one DVD with actions and pictures. This is what you do. You run out a window, you run through the door. It may not even have to have subtitles. It could have people actually acting it out on a relay, or texting. (Auckland, deaf/hearing impaired, male)

Most of the people in the deaf community buy a paper. Reading is difficult, literacy is the problem. You need a DVD, with an interpreter, make it clear. They could make a DVD for the Deaf Association. The DVD is much better than newspaper because it's visual, deaf people can see the signing, fully understand everything, an excellent way. Not yet perhaps but in future. (Napier, deaf/hearing impaired, female)

There is also a distinction made between having a sign translator or a deaf person signing in any communications. It is suggested that a deaf person be used to sign on DVDs as they are less likely to use formal language and more likely to sign in everyday sign language and consequently be more widely understood.

Could do a DVD on fire safety with a deaf person signing the messages. Important to get a deaf person to sign so it the messages are in everyday sign and free of too much formal sign language. (Interpreter for the deaf)

➤ **Visual, activity based messages**

Deaf respondents stressed that they respond well to visual messages. Information also needs to be in simple language as literacy levels are generally regarded to be lower among the older deaf community.

[How would be the best way for NZFS to organise a presentation?] *Maybe bring a poster with visual pictures on it and activities on it. If something happens, who to contact. Not to worry about their variations in language with English, make it very general, very simple because sometimes deaf people think, oh I'm quite frightened, I'm not quite sure what these words mean but I think then the fire department become more aware of the language preferred to be used. It needs to be simple. I'd be happy to help with that.* (Auckland, deaf/hearing impaired, female)

Make ads on TV pictorial with simple messages so deaf people can understand them as well. You need to remember that for deaf people English is a second language and quite different to sign language. As well as this, for our big Polynesian population English is also a second language so ads with simple visual messages will reach a far wider range of people. (Interpreter for the deaf)

It was also suggested that conveying the messages through activities and games was an effective way to promote the message to deaf people.

We need to show people through drama and role play what to do in a fire. We need to make it visual, we need activities, this is why, this is the right way to behave, it's really valuable. Make it active, it's better for them. Definitely, it's visual then they'll have a deeper understanding. (Napier, deaf/hearing impaired, female)

Like different situations, for example, give me three or four options and I pick which option to do and then I can follow it through and find out what happens that way. In that way they learn, or maybe I find that that's the wrong option and I needed to pick a different one. We need practical useful interaction games. (Auckland, deaf/hearing impaired, female)

[Why do puzzles or games to get out key messages?] *Because it's visual. It's easy to get lots of information through. It's much much easier because it's visual and they're doing something and they've got a picture linked with what they're doing and they can just see it happening and they find out straight away if it's the right way or the wrong way. There's another one like a quiz, for example, a quiz, and they get points for that, right and wrong. So that's another way too.* (Auckland, deaf/hearing impaired, female)

More visual fire safety messages will also benefit those in the wider population who learn better visually.

It's not just deaf people. It's general public really. General public will use that way as well. Look at a big picture. Some people learn better visually. (Auckland, deaf/hearing impaired, female)

Another practical suggestion, in this case for communicating with the deaf in emergency situations, was to have laminated signs available to fire-fighters that could be shown to deaf people at the scene of fires. These laminated signs could be both pictorial and include short phrases. The key to the success of this suggestion is that the messages should be clear, bold, simple and instantly recognised.

The Fire Service could have a box of laminated messages that are simple/ pictorial based with some words these could be used to communicate with deaf people. (Interpreter for the deaf)

➤ **Deaf notice board**

One respondent noted that Teletext page 501 is used as a community notice board for the deaf and could be used to promote fire safety messages. This service would need to be promoted as the research showed that a number of deaf respondents had not heard of this service.

Page 501 Teletext is a like a deaf persons notice board – fire safety messages could be placed on these. (Interpreter for the deaf)

8.2.2 Blind

➤ **Audio magazines**

The Foundation of the Blind has a range of communication methods that the Fire Service could tap into to disseminate information to blind and sight impaired people. These include audio magazines that are distributed on a regular basis to members and also their telephone information service (TIS).

[What do you think is the best way for the Fire Service to raise awareness about fire safety issues amongst people who are part of the sight impaired community?] You can put an article issue in the audio magazine. I think there are about 10-15 magazines you can subscribe to, so you can choose any ones and then they send you, whether it be weekly, monthly or whatever. Most of them subscribe to - like I subscribe to Time magazine and Reader's Digest, National Geographic. [Is that very expensive?] It's all free of charge so it doesn't cost you a cent. (Auckland, blind/sight impaired, male)

At the Foundation they will have something called the Telephone Information Service. It's a number you can dial up to and it has got hundreds of options. You've got newspapers, NZ Herald each day gets downloaded onto their computer, you can go and read through their classified ads, their articles, it's got hundreds of options. On there you could even put a message up front as well, so as soon as you get in it could say if you have any fire queries phone this number etc. So you could even put it on there, because a lot of blind people use that to catch up with the newspapers. You don't just have the NZ Herald, you have the local newspapers, you have all the information about the Foundation, even like job opportunities, all the different sporting bodies put articles on there so it's very useful. I would say put something on there to say if you have any problem or wish to know more about Fire Services in your area or something, put in a number there and put in a number on the magazines. (Auckland, blind/sight impaired, male)

[Do you think there's anything the Fire Service could be doing in terms of being proactive and advertising to increase awareness or education campaigns or something like that?] *Now be it an announcement at the beginning of a magazine, like we record magazines obviously and at the moment there's a process going on because it's time for people to renew their magazines that they receive from here from the library, and at the moment there's an announcement going on to the front of recorded magazines that says it's time for you to renew your magazines, if you want such and such then give us a call, so it'll be a similar thing. The Fire Service would probably have to pay for us to record an announcement on the beginning of magazines. For example, saying if you need more information about the New Zealand Fire Service contact – so I mean again, it's us broadcasting the information to the members rather than the Fire Service themselves doing it.* (Auckland, blind/sight impaired, male)

➤ **RNZFB telephone information services**

The telephone information service provides a wide range of information for blind and sight impaired people and could include information about fire safety and prevention.

[What sort of stuff do you get on the phone from the Blind Foundation?] *Public notices. Oh here, dial 302 3344 and then you can go through the menu, there's heaps.* [The menu of all the different types of information?] *Yes.* [Could that be a place for fire safety information?] *Oh yes definitely. You can put it on the ABC line because all the lines are nationwide going from right to the bottom of the South Island right to the top of the North, and it's a good thing because it's about safety and everybody will be listening. You can have free advertising.* (Auckland, blind/sight impaired, male)

➤ **Audio-tapes**

Having an audio tape with more information could be helpful. Most blind and sight impaired people have access to tape recorders and would most likely be interested in information that was tailored for their disability. For them there is more emphasis on auditory mediums rather than visual.

Something that would work for blind or sight impaired people would be, to get your message out you would probably have to do a tape and when you do your spiel on the telephone line you can say if they're interested there's a tape they can listen to on fire safety. They will jump at it because they can just plug it in their talking book holders and listen to it and they can relate themselves to their house, what has got to be done and what they need and that's a good way of getting the message out in the blind community. A tape, everybody has got a tape recorder and half of them haven't got the DVD players but it's a good way to get it out via tape. DVD or video is no good though they can hear it but they can't get the visual effect. They all listen to talking books, it's not a problem to stick in the tape and it's updating you on what your skills are around the house and it reinforces what you fellas are doing or helps you, and numbers on there, and what they can contact if they need more information or who to talk to about any situation and they will get back to you on that one if you use the tape. (Auckland, blind/sight impaired, male)

➤ **Email**

A number of respondents also are computer literate and have text recognition software installed on their computers. Having information emailed to them can be quite useful.

One of my first contact with someone from the fire safety, they had all these brochures and things on the table and I said could I get the content of that emailed to me because I read it with my computer with the screening software. It was all emailed to me and to that regard, there was a lot that they did email and so that's what I would do is just check that information, whether it's still up to date and actually be in touch. (Auckland, blind/sight impaired, female)

➤ **Large print**

Large print information is also useful for sight impaired people.

I rang up the Foundation and was able to get some information on an organisation a couple of months ago in larger print, which suited me. (Auckland, blind/sight impaired, male)

[Large print?] Yes, probably needs to be like an 18 point. (Auckland, blind/sight impaired, male)

➤ **Radio**

Radio is a huge communication medium for the blind.

And then I've heard it a lot over the radio. As I said, I have the radio on all the time. I hear a lot of information and a lot to do, and on talkback. (Invercargill, blind/sight impaired, female)

[What could the Fire Service do to help more?] I think they do a good job as it is, really. Because as I said they put a lot of information on the radio and I think they often have – and I don't have the television on a lot – and I think they do have the fire service, the fire people come on the television sometimes and I think they've had them on the radio. (Invercargill, blind/sight impaired, female)

Another option for them, and I don't know if this would be an option but Good Morning is quite a good programme and depends on if they could get a spot on Good Morning, it's all about fire safety issues. (Auckland, blind/sight impaired, male)

8.3 Accessing those who are not involved with disability agencies

Not all people with disabilities are connected to a national disability organisation, so reliance on disability organisations to get the message out will not reach non members.

[In terms of visiting the deaf clubs and how they went about doing that was that a good way of doing things?] *They didn't contact everybody, they can't but they saw perhaps 2%-3% of the community. That was all really. There are plenty of people out there. [So that's why you talk about also the schools and Deaf Association?] Yes, reach out into the community, Parents for Deaf Children, for example. There are lots of things. Get the information out there.* (Auckland, deaf/hearing impaired, female)

➤ **Mainstream messages to take into account disability impacts**

It is still important to ensure that mainstream messages take into account people with disabilities also. This would need to be done very carefully to take into account disabilities issues without targeting disability per se.

[Is it best that they go through community organisations like that, or that they do more of their own broader mainstream campaign like a TV or radio campaign?] *Well, I suppose you can do both because not all disabled people belong to an organisation I suppose. [Do those mainstream ads they had on TV also work for people who are disabled, or do you think they'd need to be quite different?] No, not quite different. I think they need to be modified but if they ran it, get out of the bloody house, get out there. I know for example you've got to crawl along the floor. They teach you to crawl along the floor... the other thing about the battery really is it would be quite good to know exactly what happens with the battery if there's a fire. Will it explode? If it explodes you've had it. You'd be stuck.* (Auckland, physical disability, male)

[Anything on TV or radio, would you want it targeted specifically to people with disability or would it just be general stuff?] *I think it should be as part of the general information thing but it could also say specifically for people with disabilities, think of this as well. I sound like I'm very precious about having a disability but I guess that sense of independence and self esteem goes hand in hand and is very important. No one likes to feel like they've given up control of their life to anyone else, even though no man's an island or no woman is an island, we're all mutually dependent upon people.* (Wellington, physical disability, male)

Maybe an ad with people in chairs. [It wouldn't be a silly idea. (Interjection)] (Auckland, physical disability, female)

[In order to make it a mainstream advert effective for deaf people but also be useful for the mainstream what key things need to be done to it?] *Visual activity, visual communication like role play people coming in and maybe a fire happening and what you do with the next step because some deaf they read quite slowly they might miss out the information because the ad's finished already and then they lose their confidence, you know what I mean? Maybe there're two different ways; later you could have your full worded one and then later on you have your visual ones and then they just alternate.* (Auckland, deaf/hearing impaired, female)

Nationwide campaigns could also help remind the wider public to think about their friends, family or neighbours who may need support in the event of a fire incident. Raising awareness that people with disabilities are 'like you and me' is important. Another suggestion is for reminders to people who know someone with a disability to take note and think how they can help and make friends aware of some of the issues regarding fire safety and prevention.

To me the nationwide advertisement that you're talking about, the televised one is one that might actually catch general public to make them think about, okay my neighbour, I know he's got whatever. Maybe I do need to think about that. That's where I really think we've got to push it, with the general public. (Invercargill, main support person, head injury)

[Is there room for more ads that are widely targeted for all New Zealanders but have a message in there for people who are in chairs?] Not necessarily. Having a disabilities week or something like that. You know you could have a disability week. I think people need to because people need to be aware of people that are disabled in the community. A lot of people don't want to face the issue, they turn away from you. I think it's much more accepted than what it used to be but my experience is that people are still uncertain around wheelchair. You need to really break those barriers down and show that they're normal people because they see people in a wheelchair, they think you're gaga as well. They tend to talk to your caregiver or your person standing alongside you in the end. (Auckland, physical disability, male)

Is there a Deaf Week? It's May next year. Sign language week. Alright, not yet confirmed, not yet confirmed. Wait till February when there's a meeting. [That would be a time when the Fire Service could actually do something with their campaign?] Yes. Deaf awareness week, which is involved with sign language. (Napier, deaf/hearing impaired, female)

[Prompted on targeting family members and friends] Natural supports are the best supports so targeting family members and friends with messages on fire safety for the deaf is a great idea. (Interpreter for the deaf)

Some campaign messages could also incorporate what to do and how to contact the Fire Service if you have a disability. For deaf or hearing impaired people, knowing how to contact the Fire Service is important.

Maybe it would be better if the Fire Service put something on Teletext, something linked with the service and what maybe to do if there's a fire, like there's not enough information out there. It needs to be visual of course, but I think there needs to be something on the TV about maybe how the Fire Service is set out and how people could access that. (Auckland, deaf/hearing impaired, female)

One group of respondents suggested a programme similar to Border Patrol but based on the Fire Service. It is noted that the Border Patrol programme had subtitles for deaf viewers.

There's a programme like a drama. Like a live documentary. [Like Border Control?] Yes and Coastwatch, Motorway Police. There's nothing about the Fire Service. I think if there was a fire one it would be quite successful and people would learn a lot. (Auckland, deaf/hearing impaired, female)

[The one like Border Patrol, did that have subtitles?] *Yes it did. A lot of the programmes do. There's another one just talking about two ex-police, about going to the house and – like we're learning stuff from that. If they came into my house I'd be able to know what to do. Having one on fire would be good.* (Auckland, deaf/hearing impaired, female)

The burglar programme, Crimewatch. There's two ex-burglars. They visit a house when the person's out and they steal stuff and when the person comes back they're quite shocked and then they explain how they broke into the house and how they took it and then they explained how to make the house safe. That programme, I was talking about it with a friend and we had a huge conversation about it, so I'm sure if there was a fire one it would be the same and I'm sure the reaction would be exactly the same. Back in my old flat I was looking at that and thinking about how I could make it safer for me after watching that programme. (Auckland, deaf/hearing impaired, female)

➤ **Working with health professionals**

Another suggestion was to encourage and support health professionals to promote fire safety and also check for fire hazards. It is noted that, as part of their job, some do check for safety issues including fire hazards. Occupational therapists and physiotherapists, in particular, work a lot with people with disabilities and their advice is highly respected.

The OTs at the Spinal Unit would be the ones that need to take on board the information that is helpful, because they can transfer that to the architects. It would be the OTs and the architects that should know about what is needed. (Auckland, physical disability, male)

[People who don't belong to the Deaf Association but they can't hear, what's the best way to get the information?] *Through their children if they have any. Doctors, the doctor should know they're deaf and they can get information. Because most wouldn't go to the fire station and ask. Probably through the hospital because they provide medical assistance.* (Napier, deaf/hearing impaired, female)

The OTs were good. [What did they talk about?] That was with cooking and when you've got food on. We've had three or four incidents. [How did you get around that?] She suggested a really loud timer – it's really, really loud and you put that on when you're cooking, like the rough amount of time you're cooking and it goes off and it just screeches. [Is it working?] Yes because [name] will just forget what he's doing or he'll wonder outside. It's just a matter of forgetting that he's already started cooking something. She suggested that and that does work. You can't stop people from being independent and say you're not allowed to cook. It's life. (Invercargill, main support person, head injury)

All the occupational therapists probably need to advise their clients if they realise there's difficulties. There should be some system. (Invercargill, main support person, head injury)

➤ **Posters**

Placing posters and information in malls, shopping centres and libraries to capture people's attention was also suggested.

Some deaf don't want to come to this organisation. They don't want to be associated with Deaf Association. They have private lives and they want to keep them that way and I think that could be a problem. Maybe we need to find out how many people live in New Lynn and maybe stick a poster out there in a central area. There are a few deaf out there that don't want to join the deaf world, they want to stay in the hearing world and they'll see these posters and they'll go, oh okay that's a campaign poster like in the shopping centre or something or the library, places like that. (Auckland, deaf/hearing impaired, female)

➤ **Education system**

The education system was also raised as a place to reach young people with disabilities who may be attending schools for specific disabilities such as deaf schools and schools for the blind.

There's deaf schools as well. That's another avenue for information. Some schools, and then they leave school, and there's no link. We don't know where they've gone. They don't understand the Deaf Association or follow it through. They don't belong to the deaf club and they're lost people. (Auckland, deaf/hearing impaired, female)

I think deaf school is a good avenue too. Grab them before they leave, before they disappear. (Auckland, deaf/hearing impaired, female)

I was going to say, you could suggest they go and visit the schools with the deaf resource centres in Christchurch and Auckland, and deaf units, any areas that have any. Most deaf people actually do, especially in the big cities which is where the biggest populations of deaf are, as in Christchurch, Wellington and Auckland, belong to the deaf clubs. They just do because it's one place where they can socialise with their peers. (Whangarei, main support person, deaf/hearing impaired)

➤ **Working with people with disabilities to develop resources**

Developing resources could be undertaken by a working group of people with disabilities.

Maybe like, deaf people, maybe they can go and work in the fire area for a short time and learn all these things and collect all the information and distribute it throughout New Zealand, like a working group, work together. (Auckland, deaf/hearing impaired, female)

[Do you think they could develop messages or pamphlets that they could pass on to the Foundation of the Blind, who could then give them out if they thought they would require it or need it?] *I think they could but they would probably do it in conjunction with the Foundation to say, hey we want to develop pamphlets of blind awareness of fires and then the two of them sit down together and say this is what you should do in your house and this is what you should do here etc. but I don't know if they've already got something similar? They've got, as I said, a pamphlet or whatever on emergency services. I'm not quite sure if they need to go into much further detail in that. (Auckland, blind/sight impaired, male)*

8.4 Awareness of current social marketing campaigns

Fire safety campaigns mentioned included the burning chair, the sprinkler campaign, “stop, drop and roll” and smoke alarms.

[Any other campaigns out there you think could be useful for the Fire Service to know about that might get people to take action? Any ones that you can recall that you’ve seen that’s made you actually do something different?] *That fire one with the chair – if they did something like that but they had someone who – in your case about your son – that did just stop and they saw that people with head injuries do just stop and they don’t necessarily react – that would be a good way of going about it too.* (Invercargill, main support person, head injury)

There’s a fire one I see on TV. It talks about the time it takes for a fire to burn the chair and that was really interesting and worrying as well, especially, as a deaf person, we’ve got to more aware to turn things off when we’re cooking. Making sure that appliances are off before we go to sleep. (Auckland, deaf/hearing impaired, male)

[Are you aware of any fire safety campaigns that have gone on in recent times?] *Heaps! Yes, you know, smoke alarms, helping prevent fires with smoke alarms. I actually ... that smoke alarms will save lives ... so that’s my advice is to go around and offer the news to people. That “stop, drop and roll” campaign.* (Auckland, physical disability, male)

The one in the garage – two minute one is very good. Putting sprinklers in new homes and everything else, that type of thing. (Invercargill, main support person, head injury)

Other social marketing campaigns that captured people’s attention were:

➤ **IHC**

I like the IHC one. Ordinary people in ordinary lives. It’s the same, everybody’s ordinary. They just want to be people. (Invercargill, main support person, head injury)

➤ **Drink driving**

I remember someone was drunk. I remember that, I remember that. (Napier, deaf/hearing impaired, female)

➤ **Speeding**

[Are there any other campaigns out there that have actually touched you and thought hey, I will do something about it?] *There’s that one – that wee Maori boy standing on the corner about the speeding and the cars coming towards and you’ve got the fatality. That had an impact – it really had an impact.* (Invercargill, main support person, head injury)

➤ **ACC campaigns**

There was a programme on TV before about a lady tripping over a glass coffee table. [That an ACC ad you talking about?] Yes. It makes commonsense because it can happen to anybody in any situation you don't have to be blind so it just reinforces about everything on the floor. [How could they make those ads work for people who can't see them?] Well, they must work for anybody because even like the blind people, you're walking into coffee tables and everything you feel the pain and you remember the pain and you remember the picture in your head of what's going to happen. (Auckland, blind/sight impaired, male)

➤ **Mental health**

That mental health one you know that one, "know me before you judge me", because they show the song and then you have someone talking like it's in tune, that's good too. The only thing that's really visual there is they just show the number on the screen but I mean overall, you actually get the message quite clear about mental health. (Auckland, blind/sight impaired, female)

Most respondents felt that messages for people with disabilities should be part of nationwide campaign. There is a need to take care that people with disabilities are not separated out and segregated through any targeted campaigns. Rather than targeted campaigns, current campaigns could be modified to include situations that people with disabilities may face. It is also important to ensure that the common messages are able to be widely understood.

[How do you feel about having targeted messages to people with sight impairment?] I suppose you could be looking at segregating if you say, if you're vision impaired do this and if you're not do this. I think the message is still the same. Probably those with vision impairment have to know, how do we cope in the normal world anyway? (Invercargill, blind/sight impaired, female)

[Part of nationwide fire campaign, represent others as well, not just targeting one specific area] Good idea. Just make sure that all sign it! Wheelchair ... because they're signing! (Napier, deaf/hearing impaired, female)

Say people with disabilities and not just the head injury because quite a lot of people with disabilities of all sorts – a loud noise will paralyse them. They may know very well what they need to do but that loud noise stops them. (Invercargill, main support person, head injury)

For those with a hearing disability, the highly visual advertisements draw their attention and it was suggested that having some advertisements with interpreters and teletext/ subtitles would be helpful.

[Was that particular advert an example of what the fire service should be doing to help contact the deaf community or inform about fire safety?] *Yes. There should be more advertisements like that. Maybe putting an interpreter in as well so that it involves all people. Maybe including teletext as well ... [Is teletext widely used by deaf people?] Oh yes, absolutely yes. For example, for myself, I'll watch a TV programme but if there's no teletexts I don't bother watching it. If I know there's going to be teletexts then I'll be watching it, but if there's no teletexts I just wouldn't bother. If the fire safety was promoting something that had teletexts, then I'd probably take the time to watch it. I could be talking away and if there's an advertisement with nothing on it, I wouldn't bother watching it but if there's something with subtitles it would probably catch our attention and we'd want to watch it.* (Auckland, deaf/hearing impaired, male)

[What about fire safety campaigns on T.V and things like that?] *It needs to be subtitled. It has to be subtitled because often actually all advertising has no subtitles, so if it was subtitled.* (Auckland, deaf/hearing impaired, female)

I have a TV but yes they never have subtitles. What do they say? You see the pictures. They have an ad on TV about children in a bedroom. And the barbeque one. They are all these ads but there's no subtitles to them. How do deaf understand that? (Napier, deaf/hearing impaired, female)

For the sight impaired it is important that any advertising for television recognises the need for sound, speech or a voice-over. Advertising campaigns that respondents found easier to understand were those that had conversations that told the story and a song that captured their attention. Stating any important information such as contact phone numbers should be standard rather than having the number run across the screen.

[In terms of ads and campaigns like that, do you think the Fire Service could get messages out to those sorts of ads to people with sight impairments?] *As long as they speak because they often use a very nice visual ad. If you look at the Fire Service's video, well the one that I saw about 3 months ago there's no speaking in it. That's why this guy when he was doing the voice-over for us but in a visual way, they showed someone stopping setting a house alight and how quickly and what happens until the fire brigade gets there, and basically to show things about time and smoke and disability and so on.* (Auckland, blind/sight impaired, female)

I think the McDonalds one about the child that has got to choose whether he wants the fruit bag is a particularly good ad because it had a lot of talking in it but also humour. Because they talk all the time you see, and whether you like McDonalds or not, I mean you can already see the picture and the whole, oh this is going to happen and they actually show that. You don't have to do everything, just quietly something portray in a verbal message too. (Auckland, blind/sight impaired, female)

SUMMARY

COMMUNICATING FIRE SAFETY

- Consider people experienced in disability to promote the message/ train fire service personnel in disability issues
 - Fire service to promote the message through open days, website, seminars/workshops/ support groups
- Promotion through disability organisations/ national disability conferences
- Booklet with safety tips for specific disabilities
- Fire safety message on regular TV1 disability programme
- Messages for the deaf in:
 1. Sign language
 2. DVD in sign language
 3. Visual, activity-based messages
 4. Use of Deaf Notice Board
- Messages for the blind in:
 1. Audio magazines
 2. RNZFB Telephone Information Service
 3. Audio tapes
 4. Email
 5. Large Print
 6. Radio
- Accessing those not involved in disability organisations:
 1. Mainstream messages taking into account disability impacts
 2. Reminders to wider public to think about friends, neighbours who may need support in a fire
 3. Working with health professionals
 4. Posters in malls, shopping centres and libraries
 5. Education system
 6. Working with people with disabilities to develop resources
- Social marketing campaigns:
 1. Some recall of fire service and other social marketing campaigns
 2. Modified rather than targeted campaigns for people with disabilities
 3. Recognition of different communication methods for different disabilities

9. Other disability issues

It is important to note that within disability groups there are different degrees of disability. Consequently, there is no one fire safety method that will work for all deaf persons or for all head injury persons. So a flexible and multi-pronged approach is essential.

[What are the key fire safety and prevention issues for the people that you are supporting?] *That would depend on the injury though. It's a head injury but some people are worse than others. They can hardly get it into their brains. People just sit there – oh yes, that's right. Other people can pick it up straight away.* (Invercargill, main support person, head injury)

9.1 Maintaining independence

Many respondents noted that they are fiercely independent and strive to live their lives without giving in to their disability. This may mean that little notice is given to disability-specific actions or communications in an effort to ensure the disability impacts as little as possible on every day living and so as not to be seen as different to the rest of society.

[What makes it difficult for you to take more fire safety prevention activities?] *It's not that you deny you've got a disability but it's like you want to live your life with the minimum disability possible. It seems like, if I'm planning all these strategies in the event of disaster or a fire, I'm almost given in to the disability and that's something I wouldn't want to do. [Is that a realistic perception to have?] It's probably not but if you haven't realised already, people with disabilities are like any cross section of the public but they are people who are quite private and who don't want a big fuss made about them or their circumstances. I find it very hard to have to call on people for help or to say, hey I need special attention in the event of a fire or whatever else. I think if most people with disabilities were honest, they would describe themselves as stubborn or pigheaded and I'm not saying it's an entirely negative trait but it's a trait that a lot of people with disabilities have because you live your life trying not to be different from everyone else or not to be visibly different from everyone else.* (Wellington, physical disability, male)

[What do you think might stop people from taking more action?] *Pride, pride, money. [When you talk about pride, what do you mean?] As I said before, I'm capable and I don't need help. I know what I'm doing.* (Napier, deaf/hearing impaired, female)

Any awareness raising activities need to take into account this independent spirit and provide opportunities for people with disabilities to take charge themselves. Providing people with the information and the tools to assess their own fire safety and prevention needs is suggested.

I think one of the things, when I knew you were coming around and I was thinking what have I done to prepare for a fire? I've done nothing but I was sitting there and in my mind I started to think well, what would be the things I'd have to do and that's when I really clarified what my exit strategy from the house would be. Maybe if there was some planning tools that – I'm sure everyone could use but particularly people with disabilities to use to say well, priority order, first thing is to do (a), second thing is to do (b), followed by (c) – that would be a really useful thing. It also doesn't require me to wave the flag and say I'm disabled, pity me or do anything. It's something that I can do for myself but it prepares me for a future eventuality if it happens. (Wellington, physical disability, male)

9.2 Other senses compensate

Some respondents found that other senses would compensate for the one they had lost, so those who were deaf relied more on their visual sense, while those who were blind found their hearing and sense of smell heightened.

But the senses really kick in double from without sight because you've never used them before. [So now you hear things more than what you used to?] Hear, smell. Your senses are double, sometimes even triple in doing things. I would have been quite happy to lose an arm or a leg, not my sight. (Auckland, blind/sight impaired, male)

9.3 Physical disabilities

For some, fatigue occurs at different times of the day and mobility is comprised at these times.

I can crawl. In the middle of the night my mobility is not that great, because when I'm still for a while I can get quite stiff. Even at night time, before I go to bed, that's when I'm most fatigued down the back. If it happened at 10 in the morning fine, I'll just be downstairs quick but there's a big difference between that and the middle of the night. Also your balance is affected a lot by your sight so if it's dark your balance is a lot worse. (Wellington, physical disability, female)

Breathing is more difficult for those who have spinal injuries, in particular high tetraplegics, in the event of fire according to one respondent.

[Any other major issues faced in relation to fire safety prevention?] I guess the breathing too would be another one, not necessarily for myself, but when working with other high tetraplegics often the breathing's affected anyway and with all the smoke and that in a house. How long they could actually cope with breathing when you've got fire, put in. (Auckland, physical disability, female)

9.4 Hearing disabilities

This is also a concern about living with others without a hearing disability and relying on them to hear smoke alarms.

I'm concerned if I'm by myself, if I'm asleep and something happens, there's a fire. I rely on my father and somebody hearing to let me know if there's a fire in the house. (Auckland, deaf/hearing impaired, male)

For deaf people visual communication becomes very important. For this audience the creative use of images to convey a message is an important technique for communication.

Auditory's great for blind people, but deaf and visual, they need to see the words to see the picture linked with the words. (Auckland, deaf/hearing impaired, female)

Hearing like visual things too. They understand it quicker. It's not just reading and reading. It's short and sweet. (Auckland, deaf/hearing impaired, female)

9.4 Sight impaired/ blind

Blind respondents all noted they have very good sense of direction within their own home, knowing by memory where they are and what obstacles are in their way.

[If really smoky, would you be able to find your way out?] *Ah yes, because other people have got their sight they can just focus on their sight. Well we've got to focus on our thoughts and memory and hearing and everything like that. It's just the difference. I could say to people it's alright for you, you can just focus your eyes around to see everything. (Invercargill, blind/sight impaired, female)*

[Would you need anyone to help you get out of the house?] *I don't know how I could – I always have the keys in the door. They stay there forever. I would be able to manoeuvre around here better than somebody who's sighted and I could go in these places straight away and that door over there has just got one lock on it, slide it open. That window - I could be out of here in no time at all. I have thought about all these things. To me it sounds alright. (Invercargill, blind/sight impaired, male)*

[How much more difficult is it for you to get out of your house?] *Probably we're better off because we can feel our way a lot more than perhaps a sighted person in smoke – your sense of direction. (Invercargill, blind/sight impaired, female)*

Two-storey houses are also difficult for the blind and sight impaired to navigate in the event of fire and should be a consideration when looking for accommodation.

I'm against them being on a two-storey place because you're looking at OSH factor. If you've got stairs involved you will escape things that are a whole lot different to if you haven't got a ladder outside. If you have got a ladder outside, well then you could get out of the house and we're falling off the ladder. (Auckland, blind/sight impaired, male)

Fire extinguishers are not so important to those who are blind or sight impaired and may be more of a hindrance.

[Do you think that's useful having fire extinguishers for a blind person in their house?] *For a blind person I don't think it would be any good myself, because there's too much hassle of finding it and then finding exactly where the fire is or what started the fire.* (Auckland, blind/sight impaired, male)

9.5 Head injuries

Some people with head injuries had multiple disabilities that affected their ability to respond to fire safety and prevention. Many respondents indicated that they would not be able to operate some fire extinguishers as they have weakness in their hands.

[What are the key things for fire safety prevention?] *I'm alarmed that – we've got a fire extinguisher – but I doubt if I can use it. That concerns me. And getting out of a window concerns me. [Name] would have to push me out and I don't know what that would do to my bones. [Why do you think you can't use the fire extinguisher?] Because this hand doesn't work. [So it would only be useful if [name] was around?] Yes basically.* (Invercargill, head injury, female)

Symptoms can vary from day-to-day, so on a good day people would remember and make safer decisions, but on a bad day things could be quite different.

I have to be responsible for myself and I know that [] doesn't leave me all that often. But he does leave me sometimes. But I suspect – and I'm not looking at him saying this – I suspect he chooses as to how well I'm functioning on a particular day before he goes out. Because I have days where I don't function and days when I'm fine, like today. (Invercargill, head injury, female)

Noise affects people with head injuries so radio messages are not as effective as many will not have the radio on.

[Have you heard anything on the radio about keeping fire safe?] *I never have the radio on, it bugs me. The only time I have the radio is in the car.* (Invercargill, head injury, female)

One respondent noted that television did not have the same negative effect on her as radio noise.

[Do you watch much TV?] *The TV is on quite a lot. The noise from the television doesn't disturb me in the same way as the noise from the radio. If [name] not here sometimes I treat it ...* (Invercargill, head injury, female)

10. Appendix 1: Omnibus methodology

■ The sample

All interviews are conducted from UMR's centralised 35-line CATI phone bank and national interview facility in Auckland. The sample universe is the New Zealand population aged 18 years old and over, living in private households with telephones.

The sample universe is stratified into 23 telephone directory regions. The number of residential addresses in each of these regions is determined and a quota is then specified as to the proportion of the sample that must fall in each region.

The following table shows the percentage of respondents for each area and the number of respondents to be surveyed in each area for the proposed sample of 750 respondents.

STRATIFIED SAMPLE BY TELEPHONE REGION			
		%	750
01	Auckland 1	5.1%	38
02	Auckland 2	4.1%	31
03	Auckland 3	7.4%	55
04	Auckland 4	7.4%	55
05	Auckland 5	4.5%	34
06	Auckland 6	2.1%	16
07	BOP	7.1%	53
08	Christchurch	12.3%	92
09	Gisborne	1.0%	7
10	Hawkes Bay	4.0%	30
11	Manawatu	3.6%	27
12	Marlborough	1.2%	9
13	Nelson & Bays	2.5%	19
14	Northland	3.4%	25
15	Otago	4.7%	35
16	Southland	2.7%	20
17	Taranaki	2.8%	21
18	Timaru & Oamaru	2.2%	17
19	Waikato	8.1%	61
20	Wairarapa	1.3%	10
21	Wanganui	1.6%	12
22	Wellington	10.3%	77
23	West Coast	0.9%	6
Total		100%	750

■ Call-backs and calling times

Up to five call-backs are made to initially selected respondents to ensure that non-response has a minimal impact on the representativeness of the sample. Appointments are made to ring back respondents if the time they are first contacted is not convenient.

Respondents are called from 5.30pm to 9.00pm during the week, from 9.30am to 6.00pm on Saturday and from 9.30am to 9.00pm on Sunday.

■ The telephone sampling scheme

A random sample of telephone numbers is generated from all number ranges found in Telecom's White Pages for New Zealand.

Random digit dialling is conducted off this sample so that unlisted numbers are captured in the sample.

To limit the sample frame to "private households with telephones" the following types of telephone numbers are filtered out from the sample:

- Telecom Yellow Pages
- Disconnected or fax lines
- Where the interviewer determines that contact is not a private household/ business line.

■ Data quality

CATI telephone interviewing provides a powerful medium to obtain quality, accurate data. The Quancept CATI system used at UMR has many features designed to aid in the capture of quality data.

Quancept CATI data processing:

- Quotas are automatically totalled as the survey proceeds, and as each quota is fulfilled, the interviewer is automatically guided to the appropriate course of action.
- Any answer is checked that it is the right type. For example, a multiple response answer cannot be entered for a single-coded question.
- All numeric answers are checked that they lie within their acceptable range. Each question can have its own acceptable range, or multiple acceptable ranges can be allowed for one question.
- As answers are entered, the text corresponding to them is highlighted to give the interviewer a visual confirmation of what he/she has entered.
- Optionally, the interviewer can be required to reconfirm the correctness of each entered answer, before going on to the next question. Alternatively, this can be done for only certain specified questions, so that the interviewer need reconfirm the answers only considered 'critical'.

- Within a multi-coded question, any number of responses can be specified as 'Must be single coded', and these responses will only be accepted if not in combination with anything else.
- Special facilities are provided for validating the correctness of date (or data and time) answers. The interviewer has wide flexibility in how the answer is entered, and the system will check for correctness and completeness.
- All answers are checked logically against each other. In case of inconsistency, the questions will be re-asked. The script can make logical checks of any complexity.
- Answers can be checked for arithmetic correctness. It is very easy to check, say, that no part is greater than the whole, or that several answers total to a previously given answer.
- The interviewer can, at the end of an interview or at any time during the interview, step through (all or part of) the interview from the beginning, checking the correctness of answers. Answers can be changed but this facility can be disallowed on a per-survey or per-interviewer basis.
- Whenever an interviewer changes any previous answer, a complete 'consistency check' is done on the entire interview. If the change causes new or different routing, the questions on the new branch are asked, while questions on routes that are no longer taken are marked 'off-path'. Unless specifically requested 'off-path' variables are not written to the final data file.
- If, by changing an answer the interviewer has changed the quota cell for a respondent, then all of the necessary corrections are made within the quota system, and the action is taken based on the fullness of the newly defined cell.

Along with the internal checking and editing automatically conducted by the CATI system, interviews are randomly monitored, viewed, and listened to by authorised supervisors.

Quancept CATI interviewer monitoring:

- 'Overview' monitoring can be done showing all interviewers on the system or only those on a given project.
- 'Overview' monitoring shows the up-to-the second status of each interviewer.
- For each interviewer, you can see how long he/she has been in that interview, in that section, and in that question. Thus the supervisor can quickly identify situations in which an interviewer may be having a problem.

■ **Accuracy**

According to sampling error statistics, provided the survey is conducted on truly random probability methods, the accuracy levels for n=750 interviews can be stated as follows:

"For a figure of 50%, there are 95 chances in 100 that the maximum error will be plus or minus 3.6%."

If the figure is less than 50%, or greater than 50%, the margin of error would be reduced.

- **Confidence Margins**

The following table gives the confidence margins for error applying to percentage values or proportions obtained in a survey, for a number of different sample sizes.

Therefore, if we want to know the confidence margin on a value of 20% on a sample of n=750, the table shows that the confidence margin is 2.9%. The confidence limits on the reading of 20% would be 17.1% and 22.9%.

The table shows the confidence margins at the "95% confidence level", ie. the chances are 95 out of 100 that the true value in the example above falls between 17.1% and 22.9%.

The formula used to compute the confidence margins shown in this table is:-

$$\text{Confidence margin} = 1.96 \times \frac{\sqrt{p(1-p)}}{n}$$

Where p is the proportion being tested (eg. 20%=0.2) and n is the sample size.

BASE NUMBERS

PERCENTAGE	n=20	n=50	n=100	n=200	n=500	n=750	n=1,000	n=2,000
50%	21.9	13.9	9.8	6.9	4.4	3.6	3.1	2.2
40% OR 60%	21.5	13.6	9.6	6.8	4.3	3.5	3.0	2.2
30% OR 70%	20.1	12.7	9.0	6.4	4.0	3.3	2.8	2.0
20% OR 80%	17.5	11.1	7.8	5.5	3.5	2.9	2.5	1.8
15% OR 85%	15.7	9.9	7.0	5.0	3.1	2.6	2.2	1.6
10% OR 90%	13.2	8.3	5.9	4.2	2.6	2.1	1.9	1.3
5% OR 95%	9.6	6.0	4.3	3.0	1.9	1.6	1.4	1.0
2% OR 98%	6.1	3.9	2.7	1.9	1.2	1.0	0.9	0.6

10. Appendix 2: Performance rating

GOVERNMENT DEPARTMENTS - PERFORMANCE RATING								
<i>I am going to read you a list of Government departments. As far as you are aware how good a job do you think they are doing - are they doing an excellent job, a good job, only a fair job or a poor job. If you don't know enough about them just say so.</i>								
	DEC 06							
	Excellent Job %	Good Job %	TOTAL EXCELLENT/GOOD JOB %	Only Fair Job %	Poor Job %	TOTAL FAIR/POOR JOB %	Unsure %	TOTAL EXCELLENT/GOOD JOB WITH AN OPINION %
New Zealand Fire Service	40	50	90	6	1	7	3	93
Department of Conservation (DOC)	17	51	68	17	7	24	8	74
New Zealand Customs Service	15	52	67	17	3	20	13	77
New Zealand Police	14	52	66	27	6	33	1	67
Ministry of Agriculture and Forestry (MAF)	12	48	60	21	3	24	16	71
Inland Revenue Department	7	43	50	34	10	44	6	53
Ministry of Defence	10	36	46	26	9	35	19	57
Ministry of Transport	3	37	40	38	12	50	10	44
Ministry of Justice	4	33	37	37	17	54	9	41
Ministry of Education	6	31	37	38	20	58	5	39
Department of Labour	2	34	36	34	7	41	23	47
The Treasury	3	32	35	28	7	35	30	50
Ministry of Health	3	28	31	40	26	66	3	32
Department of Corrections	3	23	26	38	20	58	16	31
Ministry of Social Development	2	19	21	29	10	39	40	35
Te Puni Kokiri, Ministry of Maori Development	2	17	19	21	10	31	50	38

'Total Excellent/Good Job with an opinion' = those respondents who were 'unsure' removed.