Fire Research Report

VULNERABILITY AND THE TRANSLATION OF SAFETY KNOWLEDGE

Victoria University of Wellington

February 2002

The research reported here follows an earlier project also funded by the New Zealand Fire Service. In that research a qualitative research design to study fire safety knowledge in action was employed. Here, the focus is broadened to consider the New Zealand Fire Service (NZFS) as an organisation that holds accumulated fire safety knowledge, and seeks to target this knowledge towards identified vulnerable groups and effectively communicate its adopted safety strategies.

This research draws from interviews with NZFS employees to identify ways in which the NZFS could optimally reach out to at-risk groups with fire safety promotions and reduce domestic fires. The research focuses on the employment of firefighters as the interface between the NZFS and the public, and on the promotion of domestic fire safety. The analysis works from a translation model of fire safety knowledge. This means that promoting fire safety effectively is not simply a matter of altering the physical environment (e.g. by installing a smoke detector) or distributing "information" about fire safety (e.g. through pamphlet drops). Rather, promoting fire safety is about finding the right mixture of human and material elements, a mixture that itself needs to be flexibly applied across situations.

Improving the value, in terms of safety promotion, of firefighters' interactions in the wider community could mean ensuring that those firefighters reflect the diversity of the community (in terms of cultural groups) and ensuring that they are well trained and resourced to promote fire safety in ways that are sensitive to the needs of specific at-risk groups. Ultimately, the specificity of doing sensitive, well-targeted community out-reach may mean that the people doing this work are not necessarily firefighters but safety promoters who work alongside firefighters.

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DOMESTIC FIRE PREVENTION:

VULNERABILITY AND THE TRANSLATION OF SAFETY KNOWLEDGE

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EXECUTIVE SUMMARY

The New Zealand Fire Service (NZFS) plays a key role in enabling each resident of Aotearoa / New Zealand to develop a knowledge of fire safety that applies best to their own living situation. This research draws from interviews with NZFS employees to identify ways in which the NZFS could optimally reach out to at-risk groups with fire safety promotions and reduce domestic fires. The research focuses on the employment of firefighters as the interface between the NZFS and the public, and on the promotion of domestic fire safety. The analysis works from a translation model of fire safety knowledge. According to this model, fire safety knowledge is created through human interactions. This means that promoting fire safety effectively is not simply a matter of altering the physical environment (e.g. by installing a smoke detector) or distributing "information" about fire safety (e.g. through pamphlet drops). Rather, promoting fire safety is about finding the right mixture of human and material elements, a mixture that itself needs to be flexibly applied across situations.

According to research participants, NZFS currently employs firefighters to do domestic fire safety promotion work that is often generic in its approach and responsive rather than proactive. In many cases, fire safety promotion is not interactive or targeted specifically to at-risk groups. Firefighters who took part in the research described themselves distributing standard fire safety information to, and responding to requests from, the public. Taking a more proactive approach would mean equipping NZFS employees with the interpersonal and educational skills to enable the development of interactive safety promotion approaches that reach out effectively and specifically to at-risk groups.

Firefighters and other NZFS staff who took part in the research acknowledged that there has been a lack of training offered to firefighters to support their work in domestic fire safety promotion. As training opportunities in this area are developed further, it may become important to selectively train those who are best suited to this work and it will be important to have aspects of the training that focus on the cross-cultural nature of domestic fire safety promotion in Aotearoa / New Zealand.

Research participants suggested that firefighters' work in domestic fire safety promotion could be facilitated through organisational processes that: offer employees across regions more opportunities to share ideas; improve the transfer of understanding about the philosophy behind fire safety promotions within the NZFS; and facilitate the practical aspects of coordinating four watches to deliver a promotion in a given area.

Furthermore, it could be beneficial to put in place mechanisms that enable firefighters to constructively contribute to the development of future promotions by feeding back to management some of their experiences and concerns with current promotions. This would be one way of improving the flow of understanding about promotional work among the various levels of the NZFS hierarchy as well as enhancing firefighters' sense of ownership and involvement in domestic fire safety promotions.

In the course of the research, some firefighters offered feedback which highlights concerns about the allocation of promotional materials (such as pamphlets), the lack of clarity in some instances regarding how to use the promotional materials, and the perceived ineffectiveness of employing firefighters to deliver pamphlets.

Firefighters identified a wide range of "at-risk" groups that they could ideally be reaching out to through domestic fire safety promotions. These included students living in rental accommodation, Maori and Pacific Island people, immigrants, people from lower socioeconomic groups, elderly people, and children. It was clear that firefighters were generally not equipped or supported by the NZFS to reach out specifically to the at-risk groups in the community. Rather, they felt that they were encouraged to carry out generic fire safety promotion that rested heavily on assumptions that (1) people read pamphlets, (2) those who need information about safety will seek it out, and (3) people living in New Zealand speak and read English well. The generic approach to domestic fire safety promotion left firefighters in some areas poorly equipped to carry out aspects of their work such as doing basic evacuation drills in rental accommodation or facilitating fire safety awareness among primary school children.

Reaching out to at-risk groups means, among other things, working cross-culturally. Some firefighters expressed their discomfort about doing proactive safety promotions across cultures. According to some research participants, it would be most valuable to employ representatives from specific cultural groups to be trained to promote fire safety within their communities. According to other research participants, anyone can "deliver the fire safety message" and working cross culturally should only require minor tweaking of the materials presented to suit a given context. The report highlights a variety of problems with this latter approach to cross-cultural domestic fire safety promotion, such as language barriers, the different meanings that visual images and symbols hold for different cultures, and the possibility that not all cultural groups will respond openly to firefighters. There is a specific concern that firefighters may be seen primarily as 'Pakeha men in uniforms', and this holds connotations of authority which may hinder their work as educators and safety promoters.

Research participants recognised the value of firefighters being invited into private dwellings for fire safety promotion purposes, but it was acknowledged that what firefighters do once inside the dwelling varies greatly from one crew to another and is not guided by any explicitly agreed upon protocols. This, and the lack of training to work as educators or safety promoters, may mean that the excellent opportunity to engage with residents in their own homes, and improve their fire safety knowledge, is not used optimally.

Firefighters and other NZFS employees offered ideas about how domestic fire safety promotion could be improved. These ideas reflect an understanding that the translation of fire safety knowledge requires an interactive approach. Such an approach would be optimised through the greater involvement of NZFS employees in their local communities in ways that ensure firefighters are visible and accessible. Improving the value, in terms of safety promotion, of firefighters' interactions in the wider community

could mean ensuring that those firefighters reflect the diversity of the community (in terms of cultural groups) and ensuring that they are well trained and resourced to promote fire safety in ways that are sensitive to the needs of specific at-risk groups. Ultimately, the specificity of doing sensitive, well-targeted community out-reach may mean that the people doing this work are not necessarily firefighters but safety promoters who work alongside firefighters.

Introduction

Developing fire safety promotions in such a way that they effectively reach their intended audience is one of the challenges faced by the New Zealand Fire Service. Anecdotal evidence suggests that the very people whose homes are most often threatened by fires may be resistant to fire safety promotions for specific reasons which can be addressed.

The research reported here follows an earlier project also funded by the New Zealand Fire Service. In that research we employed a qualitative research design to study fire safety knowledge in action. We focused on interaction between householders and firefighters, analysing tape-recordings of fire crews making a fire safety assessment of households and communicating this to residents. In framing our analysis we employed a sociological approach known as a 'translation' model. This current research is also informed by the translation model. Here, we broaden our focus to consider the New Zealand Fire Service (NZFS) as an organisation that holds accumulated fire safety knowledge, and seeks to target this knowledge towards identified vulnerable groups and effectively communicate its adopted safety strategies.

At first glance the relation between the two projects might seem to be a simple difference of scale. In the first, we appear to have a micro-focus on interaction, in the second, a macro-focus on an organisation and its effectiveness. However, we need to be careful in jumping to this interpretation, as a key approach of the translation model is to avoid assuming that organisations are necessarily large structural entities with overall coherence. Rather, it is important to investigate the procedures and materials that allow organisations to appear larger than individuals or small groups, and to ask *how* their holistic appearance is accomplished.

This research is centrally concerned with the argument that safety knowledge is not a pre-existing entity that can simply be packaged and transported across situations. Instead, safety knowledge is conceptualised as something that must be continually re-created through social processes. Translation is understood as both *transformation* – something being changed – and *equivalence* – something being made to remain the same across time. Thus, translation is used not in a linguistic sense, but in the sense of both stability and change across situations.

In our analysis of fire safety knowledge, we take the following points as axiomatic:

- safety knowledge is situated in a system (or organisation) of ongoing practices
- safety knowledge is formed in, by, and through, social relations
- safety knowledge is acquired by means of social participation

¹ Lloyd, Michael and Roen, Katrina (2001). Fire Safety as an Interactive Phenomenon. New Zealand Fire Service Commission Report no 9. ISBN 0-908-920-51-2. © New Zealand Fire Service Commission.

² Fuller details of the translation model underpinning this argument are provided in Lloyd and Roen (forthcoming).

• safety knowledge is dynamic and provisional

So, what we call 'safety' is the result of complex social processes. In our first research project we centred upon interaction between householders and firefighters as the dynamic site of the production of fire safety knowledge. In this second project, our focus is on 'organisation and organising'.

The conceptual distinction between 'organisation' and 'organising' is important here. It is in the connection between organisation and organising that fire safety and fire risk are located. According to this framework, we may say that the New Zealand Fire Service is an organisation, i.e. it has a clearly defined structure, a charter and mission statement, it has a physical headquarters, and it distributes resources and gains feedback from fire stations throughout the country. The key point is that it only gets that way through the activities of organising: take away the social processes of recognising authority, performing roles, responding to others, communicating, and so on, and the organisation ceases to function. The point of following this conceptual distinction is to examine both 'organisation' and 'organising' simultaneously, and to examine the connections between the two in relation to knowledge about fire safety and risk.

While there may be coherence and clarity where *organisation* is concerned, inevitably there is complexity – and possible confusion – when we shift the focus to *organising*. On the one hand, the NZFS has clearly defined goals, a key one being to promote fire safety. And, it can draw upon an international body of research which presents remarkably consistent understandings about 'risk factors' and vulnerability to household fire. For example, young age, old age, male gender, non-white ethnicity, low income, disability, smoking, and alcohol use, are agreed to be significant risk factors for household fire (Ballard et al. 1992; DiGuiseppi et al. 1998; Elder et al., 1996; Gunther, 1982; Marshall et al. 1998; Warda et al. 1999a, b). But implementing this knowledge means moving from organisation to organising, and here great complexity emerges. Processes of organising involve a vast array of social practices which, it must be emphasized, can *never* be fully pictured, understood, controlled or regulated. No organisation ever completely achieves its goals.

A key objective of this research is to hold 'organisation' and 'organising' in tension. We accept that the NZFS as an organisation has an amount of institutional stability, but we want to minimise the assumptions we make about how this stability directs action. In the practicalities of day to day work, all organisations are full of complexities, which sometimes mean inefficiencies, contradictions, arguments, disagreements and similar aspects of human interaction. Our means of gathering data involves interviewing members of the New Zealand Fire Service – the organisation – about the day to day practicalities of organising domestic fire safety. We focus on the interface of greater Wellington's NZFS operational staff with (1) the public, and (2) other NZFS employees whose concern is fire safety education. Through identifying the common themes in this interview data we gain insights into what the members of NZFS think the organisation is doing right or wrong in the promotion of fire safety. In this report, we quote a great deal of interview extracts to present the views of NZFS employees who took part in the

research. In doing this, we are not ourselves endorsing these views. In the context of the research, there is no need to make a judgement about accuracy of opinions. The stance we take is that it is useful for the NZFS to know about how its constituent members discuss the key educative and communicative strategies the organisation is employing. Such discussions form part of the interplay between organisation and organising, and are therefore important for understanding and promoting fire safety.

A key thread running through the research is that firefighters are generally enthusiastic about working with the public and promoting fire safety. This enthusiasm was made explicit by some firefighters who said: "I think there is a lot of keenness and eagerness out there amongst the troops to get into fire safety promotion" (Firefighters' Interview #12). It was also recognised that such enthusiasm needs some organising: "We've got a reasonably simple message to give and ... if [we] ... firefighters ... all go in one direction it would just be amazing and hopefully that will happen." (Firefighters' Interview #8)

RESEARCH PROCESS

The research has involved a series of interviews with:

- 1) NZFS operational staff (firefighters) who are based in the greater Wellington area and employed in interacting with the public to increase domestic fire safety awareness.
- 2) NZFS employees involved in the development of domestic fire safety promotional strategies and materials, the management of operational staff, or the liaison between the NZFS and specific sectors of the community that are understood to be at risk.

Among those operational staff who volunteered to take part in interviews, our priorities were to select research participants who work in a diverse range of neighbourhoods, to ensure that some research participants were voluntary firefighters, to ensure a mix of more experienced and less experienced firefighters, and to include firefighters interfacing with a wide range of communities.

The interviews with firefighters have explored the following issues: what approaches to domestic fire prevention they perceive to be more or less useful/effective; to what extent their domestic fire promotions are tailored to particular audiences; to what extent they feedback their experience of delivering fire safety promotions to those within NZFS who design the resources for delivering fire safety promotions.

The interviews with other NZFS employees involved in fire safety education explored the following issues: how firefighters are trained and supported in their role in domestic fire prevention; how fire safety promotions are tailored for specific audiences; what channels of communication they see between those who design and those who deliver fire safety promotions within the NZFS.

Each interview was audio-taped and transcribed in detail, and the transcripts were analysed according to themes, to identify key areas of relevance. The analysis and report-writing is informed by international literature relating to the translation of safety knowledge and communication between professionals and lay people. For reasons of confidentiality, only the researchers and the transcriber have access to the audio-taped and transcribed interviews. No research participants' names appear on tapes or transcripts. Transcript excerpts that are quoted in this report have been carefully chosen so that they may not be used to identify the research participants.

There were a total of 23 semi-structured interviews all of which took place in the greater Wellington area during the winter of 2001. Fourteen of these interviews were with firefighters. In most cases, firefighters chose to be interviewed in a group, therefore the number of firefighters who were interviewed far exceeds fourteen. Of the firefighters who took part in interviews, four were working on volunteer crews and thirty-three were working on paid crews. There were nine interviews with other NZFS employees who were usually working at a regional or national level. These were one-to-one interviews.

Throughout this report, research participants are quoted in ways that are intended to identify key themes and not to identify individual employees. This raises two issues that require brief acknowledgement here. Firstly, most of the people who participated in this research were men. This was inevitable, due to the composition of the NZFS. Women employed by the NZFS were encouraged to participate in the research, and in some cases they did participate. Where it has been absolutely necessary to refer to a research participant as "he" or "she" in this report, we have always used the masculine pronoun. This is a regrettable choice intended to protect anonymity, not to marginalize the women whose voices may be heard through this research. Secondly, efforts have been made to protect the anonymity of the nine research participants who are not firefighters. For this reason, these research participants will only be referred to in the report as "other NZFS employees" or as "national or regional staff". In actual fact, these nine research participants include a variety of people, some of whom are based on fire stations, some of whom are based in regional offices, and some of whom are based in the national office.

The final report highlights practical issues relating to NZFS communication around domestic fire safety, identifying communication means and methods that are more effective, and less effective, from the points of view of NZFS staff employed in various aspects of designing and promoting domestic fire safety messages.

CURRENT APPROACHES TO DOMESTIC FIRE SAFETY PROMOTION

Many NZFS employees who took part in this research pointed out that the NZFS is going through crucial transitions which will see changes to the support and involvement of firefighters in domestic fire safety promotion. Some research participants also talked about the historical context that impacts on firefighters' involvement in promotional work.

Research Participant: a lot of [staff] are still coming to grips with the fact that fire safety is their primary objective because they were brought up in a fire engine and going out to fires ... [was] what it was all about. ... Though they will endeavour to do things from a prevention point of view, it's still not seen [as] ... their most critical job. ... If ... [all responsible parties don't take] full ownership then it doesn't go anywhere. ... You can have ... a watch or even a couple of individuals who are really quite keen but they keep getting told "no, no, no" [by those in positions of responsibility]. They eventually give up and say "oh well, ... why bother?"

(National/Regional Interview #8)

Although, for some, firefighters' historical role may make it difficult to fully take up work in fire safety promotion, this appears to be changing over time. Nevertheless, it has been left largely up to individual people or individual stations to be proactive in fire safety promotion.

Research Participant: We've made some really big, huge changes in the last five years and a lot of staff are now involved in promotion and prevention ... But it's been very ad hoc and because the organisation has been in disarray. It's really been those that have got their A into G and ... moved forward, and some ... have just stayed back ... and not got involved. (National/Regional Interview #8)

In talking about the way that domestic fire safety promotion is currently approached, firefighters mostly described responsive, rather than proactive, methods. That is, they said that "essentially, if people want information they come to us for it" (Firefighters' Interview #8); and "quite a bit of our fire safety in the home is reactive. People ring and want something. We go and deliver" (Firefighters' Interview #6).

For some, letting the public come to the Fire Service, rather than being proactive, appears to stem from a fear of coming across as "selling" or "preaching" fire safety.

Firefighter X: There's the message out there, but that's as far as it goes ...

Interviewer: Do you think that's the best situation ...?

Firefighter X: ... if they want it then they'll ask for it ... Instead of knocking on doors, otherwise it's like you're Jehovah's Witness or something ...

Firefighter Y: I mean, it's sort of like vacuum cleaner salesmen. (Firefighters' Interview #5)

FireFighter: You can't just go and knock on a door and say "have you got a smoke alarm?" And there are several reasons for that ... one is we don't feel comfortable doing that.

(Firefighters' Interview #11)

What firefighters see as being part of their role, and what they feel well supported to do, may be important factors in what feels comfortable for them to do. While some firefighters could envisage marketing strategies as useful for the promotion of fire safety, others questioned whether such marketing was an appropriate part of firefighters' work.

Firefighter: We've even done that, where you put [something] into the letterbox saying, "welcome to the neighbourhood. We supply smoke alarms and we install them free of charge."

(Firefighters' Interview #11)

Firefighter Y: You can't turn firemen ... into sales people....

Firefighter X: ... it's almost to the point where we are [saying] "hey look, we can do a deal for [you]!" ... I don't want any part of that sort of environment. ...

Firefighter Y: There's a joke going round - when they see firemen coming round with pamphlets ...

Firefighter X: "Pull the curtains the firemen are coming!" (Firefighters' Interview #8)

Underlying these concerns about being perceived as sales people was a recurring theme: some of the firefighters interviewed did not believe that they could, or should, necessarily change people's attitudes or behaviours with regard to domestic fire safety. As one firefighter said, "you can only educate people that want to be educated" (Firefighters' Interview #10).

The following longer excerpt highlights how the sense of not being able to suggest changes to another's way of living plays out in the context of cross-cultural interactions. Whilst the firefighter speaking here did clearly take up an educating role, what is revealed in the last sentence is the underlying belief that people will not change how they live in response to new learning about fire safety.

Firefighter: [We] got a phone call from this woman who wanted a couple of smoke detectors installed ... they were an Indian family ... and they were all living in the same bedroom, so you sort of had to educate [them] ... they're probably totally unaware of the fact that where they were ... sleeping was probably the most dangerous [place] in the house. ... So you had to educate them as to an escape plan ... so if you can get an opportunity, get your foot in the door ... and you find most people are more than willing to take advice. ... [In this case] we managed to get

across to them what they really needed to know. Obviously they weren't going to change their style of living but at least they were aware. (Firefighters' Interview #4)

Another firefighter told a story about a dwelling where suggestions could have been made to improve safety, but it was not clear to the firefighter whose role it would be to make such suggestions. Once again, part of the dilemma is that firefighters are dealing with people's personal living spaces.

Firefighter: I've personally been in [one particular] building a year apart and nothing's changed. ... It's actually got all the alarms, but ... the housekeeping in there is atrocious, but ... you've got to be careful there. I can't tell you how you look after your house or ... whether you want to throw your clothes on the floor or fold them up and hang them up ... That's not for us to say.

(Firefighters' Interview #2)

Another part of the dilemma involves balancing the relationship between educator and authority figure.

Firefighter: The real issue I think ... is we would go in, without clearly understanding the circumstances, [and] ... decide what is best for these people in probably quite a patronising sort of way and then we will try and sell it to them in a quasi authoritarian sort of way. [This] would get right up their noses and cause the whole thing to blow up in our faces.

(Firefighters' Interview #8)

The brief discussion above gives an introductory impression of some firefighters' current approaches to domestic fire safety. What this highlights is that domestic fire safety promotion is largely reactive, rather than proactive, and that some firefighters feel uncomfortable in the role of fire safety educator. This may be particularly the case where they are called into a private dwelling. The level of discomfort that firefighters feel about giving "advice" to people in their own homes is likely to be a reflection of a variety of factors. These factors may include the combination of appearing as a uniformed authority figure while playing the role of an educator, and being under equipped due to lack of training as educators.

TRAINING

Interviewer: When you are doing this ... promotional work, do you have the ...

support and training and resources that you need ...?

Firefighter: No. No of course we don't.

(Firefighters' Interview #12)

Research Participant: There need to be the people [coming] ... through the recruiting into the ranks [and], if they've got a bent for training and teaching, the [NZFS] needs to nurture that with the money.

Interviewer: And does it at the moment? Research Participant: No, not at all. (National/Regional Interview #5)

Research Participant: [Firefighters are] often expected to go into those situations, like schools, like to the groups, to present our message, with no training at all. I think that's pretty harsh on a lot of the firefighters. ... It's probably an issue that we need to look at as an organisation.

(National/Regional Interview #3)

Research participants from various levels of the NZFS acknowledged the lack of training for firefighters to do educational and promotional work. Some firefighters appeared resigned to the situation, saying "the Fire Service really haven't done any formal training over the last ten years and it's just something that we've come to accept" (Firefighters' Interview #15). Many expressed the need for training and some found that, given their willingness to take up a proactive role in fire safety, the lack of available training was particularly frustrating. In these cases, it was suggested that training would help firefighters to value the educational aspect of their work more.

It seems clear that many firefighters do carry out educational work very competently by virtue of their own interpersonal skills, with or without training. This reliance on pre-existing skills can, however, leave some crews in uncomfortable situations where they feel expected to carry out educational work without the necessary personnel.

Firefighter: It's no good saying to ... a crew "oh look, we've just got a memo down from the administration ... we've got to do more community-minded things and we have to deliver the message" and you've got four guys ... [who are] not very good ... at standing there and talking to people and it's just pointless.

(Firefighters' Interview #8)

In the absence of any on-going training in this area, firefighters have learnt for themselves by picking up tips from others. Some research participants – both operational staff and others – were impressed at how good a job is being done in this regard.

Research Participant: We've certainly got some skilled guys out there who have got the ability to relate to children and other people in the community. (National/Regional Interview #1)

Nevertheless, it does leave a lot to chance and means that quite different approaches to – and different understandings of – fire safety are most likely being spread.

- Firefighter X: Usually ... [a new promotion] arrives in the mail. Here it is, go out, and that's it. ... It's quite amazing too because the guys have done it really well with no training.
- Firefighter Y: They'll get out there. ... I think the majority of people with no training, they've done a pretty good job. It must be a hell of a different message that goes out there.

(Firefighters' Interview #9)

Talk of on-going training raised questions about the training received by new recruits. Some research participants felt there would be room for encouraging firefighters, from the start of their careers, to think of educational work in terms of career development, and to nurture them in this direction. Some were also wary about emphasizing educational training too much if this could jeopardize the learning of essential firefighting skills.

- Firefighter X: I don't know what's actually in the new syllabus for the recruits coming through ... What we are aware of is there [are] a lot of basic [fire fighting] skills ... which they should have been taught which they're not. ... That's the core business part of it. You've got to know that part ... a lot of them are coming down and haven't got those [skills]. We're hearing some scary stuff
- Firefighter Y: But they know how to use a computer very well and that type of thing, you know, as an example. ... Things like computer skills, presenting programmes to outside organisations or whatever, are secondary skills that should be developed once you're in the job. A new recruit should be coming with the basic skills to do the core business. ... It actually highlights a bigger problem within the Fire Service and that is that there has never been, to my understanding, ... a career path laid down for individuals. ... Some people are very good at presenting programmes, other people are very good at preparing hose ... I believe that where the fire service as an employer has failed in the past ... basically to sit down ... with the new recruit and say "[what] do you want to do? Let's plan a path ... and let's ... give you the training to do it."

 (Firefighters' Interview #2)

Questions of training to do educational and promotional work raised the suggestions that (a) it would not necessarily be useful to train all firefighters in these areas and (b) the training required would be very diverse, not only focused on public speaking or adult education. Some research participants talked about changes already underway that will

improve the training situation for firefighters involved in public education and promotional work.

Interviewer: [Regarding] those who do go in the education area, ... Do you feel that there's sufficient ongoing training and support for them to do that educational role?

Research Participant: No. No there's not. I would expect an improvement now. I know it sounds like a cop out ... I don't think there's going to be a miracle but [with the contractual changes now taking place] ... there will be some time to move forward ... I would expect a lot better education to come through and a lot better acceptance [of] what we are trying to achieve which is prevention rather than response.

(National/Regional Interview #9)

Some staff envisaged all firefighters being upskilled in this area and some highlighted the importance of consistency across crews.

Research participant: We will have these people coming in that are fed from day one that fire safety is actually part of the job and ... we are hopeful that within five years... firefighters will be in a position of knowledge on fire safety compliance and promotion, that existing fire safety officers are now. The idea being that ... then we can gradually upskill our existing fire safety officers and the people coming into fire safety. So ... the firefighter[s] are getting the basic fire safety ... including ... evacuation schemes, basic compliance issues and then all the promotional things that go with that as well.

(National/Regional Interview #8)

This brief discussion of training identifies the fact that employees from various levels of the NZFS acknowledge that there has been a lack of support, in the form of training, for firefighters to take up their role as educators and promoters of fire safety. There was repeated assurance that this situation is now in the process of being amended.

COMMUNICATION WITHIN THE NZFS

Much of the discussion from research participants indicated that, within the NZFS, channels of communication do not work optimally to facilitate firefighters' fire safety promotional work. Put simply, "people don't seem to know what the other people are doing [and] ... it's not coordinated enough so you're doing something together" (Firefighters' Interview #8). Even when there are commonly known mission statements or promotional projects, it may not be clear to firefighters how their day to day work really helps work towards the overall goals.

Firefighter: [As it stands,] you can often have four watches on the same station going in entirely different directions... because there's nobody actually saying "right, this is what we're going to do." ... It's all very well for [the NZFS] saying ... "the focus is on domestic smoke alarms." ... Well that's really cool. That's the mission statement ... But they don't actually say "now what this actually means for you on the floor there in [a particular] station is that we want you to do so and so." Okay, then we can say: right there's four watches, we'll split that into quarters, we'll do that, you do that, you do that. But we don't. We get into a lot of bloody woolly headed waffle coming from upstairs, we really do.

(Firefighters' Interview #8)

There may also be mixed feelings about the way that promotional strategies are developed, given that many strategies have traditionally emerged from local stations. How any strategy is developed, and how firefighters are invited to play their part in delivering the strategy, becomes an aspect of the overall communication dynamic within the NZFS.

Firefighter: There's a disconnection between ... the operational staff and the administrative staff. The administrative staff come up with their projects and we climb into that at some point. And the operational staff seem to come up with their projects which they pursue and [which are] ... sometimes taken on board but equally sometimes treated in a very patronising fashion because "you're not experts" and "we're the experts now." The publicity experts ... said this is the way forward. So if they didn't come up with this then it can't be all that clever, can't be all that good.

(Firefighters' Interview #8)

Among those interviewed, non-operational staff were highly aware of the fact that promotions had often been initiated by firefighters, and were appreciative of the value of those promotions. It was pointed out that recent initiatives, such as the Pride and Prevention Awards, have been put into place in order to "recognise innovation [in] prevention and education". (National/Regional Interview #7)

There was a call for opportunities to meet with NZFS employees from other regions, to develop ideas about fire safety promotion. This came from firefighters and from research participants at other levels too.

Research participant: I don't see people of my rank very often. There is a ... meeting, perhaps once a year [but] ... there's no ... time to talk to people ... I think there is a greater need for that communication ... because people like myself are always looking for ideas and there's some quite clever people around this country. ... We freely exchange information ... throughout New Zealand [I can say] ... "look hey, I'm a bit stuck have you got anything going?" The next minute everything turns up, so you're not reinventing the wheel all the time.

(National/Regional Interview #9)

Enhanced communication processes were seen as vital for facilitating firefighters' domestic fire safety promotion. One specific type of communication focused on in the research interviews was feedback from firefighters to NZFS employees who plan promotions and develop promotional materials.

Feedback Mechanisms

Given that firefighters receive, from other parts of the NZFS, resources and directions for the implementation of educational and promotional strategies, it seems important that they be able to feed back (a) when they need more resources (b) if they find that the available resources are not entirely appropriate for the communities in the vicinity of their station and (c) any constructive suggestions toward the development of further resources and strategies. Research participants were asked to talk about the feedback mechanisms that are available to firefighters.

While, according to some staff, opportunities for feedback do exist, according to most, there is not necessarily any way that firefighters can feed their ideas and concerns back and have them responded to. Some viewed the feedback process as depending upon personal contacts. It was also pointed out that, while the feedback may be welcomed, it is not being sought.

Research participant: It happens round the mess table. That's why I enjoy going over and sitting in and having a cup of tea with the troops ... eventually it will come through, trickle through here but there's nobody sitting here waiting for it.

(National/Regional Interview #4)

Firefighters often suggested that there were not opportunities to have input into the materials they were given for educational work, and sometimes suggested that even where a feedback channel may exist, it probably would not be very effective.

Interviewer: Is there someone you can feedback to in order to influence what comes out?

Firefighter: Probably, but we don't. ... I could ring up the person that's sending it to me and say "look, I really don't want this because I really think I'll get somewhere with something else." But by the time I get it they've already printed five hundred thousand copies.

(Firefighters' Interview #13)

The sense that firefighters' attempts to offer feedback are met with inaction is expressed by firefighters as well as other staff.

Firefighter: In the past when we have [given] ... what we felt was positive feedback upstairs, basically nothing's ever come of it. ... You get to a stage where you [think] what's the point?

(Firefighters' Interview #2)

Research participant: There [are] some problems [with the] flow of information.

Requests coming ... upstream from the crews, there is nothing like that happening very much. ... [Whenever I receive feedback,] I do pass it up through the right channels but they won't follow it through, because [it's] like it's just not important. ... It might be just some really small thing and it just never goes any further.

(National/Regional Interview #6)

In the absence of smoothly functioning feedback systems, firefighters may be left struggling to present an educational programme about which they have some concerns, and quietly adapting the programme on the spot. Staff working at national or regional levels clearly acknowledged the problems that can occur in relation to the question of firefighters' being able to feed back to other ranks in the Fire Service. In one instance, a research participant talked about being in the process of remedying this by setting up a "conduit [so] that [everybody] can put information through and receive information back" (National/Regional Interview #8).

The kinds of feedback that firefighters could contribute to the NZFS, from their experiences of interacting with the public around issues of fire safety, may help with the development of further resources and promotional strategies. It is most probable that some firefighters are doing this already through informal channels of communication. Nevertheless, research participants' reports suggest that many firefighters feel distanced from, and unable to contribute to, processes of developing resources and promotional strategies.

Resource Material

Firefighter X: We have to have the resources to do the job. ... And that's generally, that's where it falls over. ...

Firefighter Y: ... You've got to have the resources. I mean you don't send an army to a battle unless you can supply the bullets for them to use. (Firefighters' Interview #2)

Communication within NZFS involves, in part, the process of sending educational and promotional resource material from more central to more localised parts of the organisation. Essentially, this often means that decisions are made, and resources developed, at national and regional levels, after which firefighters may be asked to use those resources to implement fire safety programmes.

Firefighters who took part in this research expressed general support for much of the resource material that is developed, and some expressed a feeling that the materials are improving over time. Nevertheless, there are many ways in which communication breakdowns seem to occur in the process of passing resources, and information about what to do with those resources, from one part of the NZFS to another.

Firefighter: Quite often things arrive and it's: what the hell's this thing? That gets filed away in the task basket and [we all] just carry on doing what we've always been doing ... We've still got full boxes over there of pamphlets from about four years ago. ... You put the pamphlets out in the shop or you deliver some and we still seem to have a couple of boxes left over, so I don't know how many people [they] think live in [this area]. It must cost them a fortune. ... A box turned up one day and [it was] full of lunchboxes ... I think it was about a month down the track a letter came out and said what ... was supposed to happen to them. By this stage I think everyone had a lunchbox.

(Firefighters' Interview #4)

Firefighter: We've got two huge cardboard boxes [of promotional materials] ... I don't know what the hell we're meant to do with them. I honestly don't know.

(Firefighters' Interview #9)

It seems that the handling of resources such as pamphlets has a significant tradition with which both firefighters and other NZFS employees are familiar.

Research Participant: In the past we've traditionally received - I don't know - several hundred of these pamphlets or whatever in a courier pack, no instructions, no lead in as to what the hell it's there for. In one station it's piled that high by a window, it's a sun visor. ... I get the impression someone's ticked the box and said "yes, it's done." And there's no ... audit to make sure we're actually doing anything with it.

(National/Regional Interview #5)

Curiously, there is some diversity here too. Some firefighters said that they "get covering notes with [the resource material] and basic instructions [so] generally it's basically straightforward, commonsense, you just follow the thing" (Firefighters' Interview #3). Nevertheless, some national or regional staff also acknowledged that there is room for misunderstanding, between the stage of developing resources and the stage of delivering them, due to the hierarchical nature of the organisation.

Research Participant: I think you've highlighted two of the deficiencies in the system. One is that a lot of our strategies are developed on high at national level and filter down into the stations, but not necessarily in a way that prepares our people to deliver them or in a way that allows the transfer of the philosophy behind them. The other thing is that in the delivery of those programmes, we don't measure or have a feedback delivery which allows us to follow through, develop and monitor. We certainly don't have those formalised. The third part of that is we don't necessarily have a process where our firefighters develop particular packages to use within their small areas ... So each of those three areas we need to work on. It's happening. ... there are a number of programmes that we run that have been developed in a regional brigades area that are now being looked at for developing nationally.

(National/Regional Interview #7)

Some firefighters reported clear improvements in resources over time, and some were very happy with what arrived and with the availability of more.

Firefighter X: It has improved tremendously over the last couple of years. ... With the advertising basically. And the resources that are available with the Fire Wise.

Firefighter Y: We can walk into a school now with Fire Wise and they know exactly what we're talking about.

(Firefighters' Interview #6)

While others found that the flow of materials seemed to be out of their control and that they had difficulty in getting supplies of resources that they had run out of.

Firefighter X: [Materials] get dumped on us from the regional office ... you get it dumped on you and then six months or a year's time down the track, you go to get some more and they don't have it.

Firefighter Y: [We're told] "Oh no we've stopped that. We don't have that." (Firefighters' Interview #10)

For some, the arrival of resource material can be part of the overall frustration of feeling poorly supported in promotions and inadequately involved in decision-making.

Firefighter: Generally ... a cardboard box has turned up here and they've said: right, distribute these! Well, what are they? Just junk mail. ... We definitely did not sign up to do pamphlet drops. Quite an insult. ... Hire a worker at \$6 an hour!

(Firefighters' Interview #13)

A recurring theme, in relation to resource materials, concerned the scepticism about the value of pamphlet drops. This scepticism came from firefighters' own experiences of receiving pamphlets in the mail as well as their experiences of what members of the public seem to respond well to. Time and again, firefighters and other research participants told stories that went along the lines of: "I deal [with] the majority of the stuff that arrives in my letterbox ... and unless something really interests me it goes in the bin and I'm sure the majority of the stuff that we deliver ... ends up in the same way" (Firefighters' Interview #9). Time and again, firefighters talked about the importance of making face-to-face contact with the public, rather than doing static displays and handing out pamphlets.

Firefighter Y: Most people prefer to actually talk to you, face to face, about what they should be doing. ... Like if we go ... to a school open day, for example, and ... we do a display ... then we'll put out all pamphlets and the people go "oh thanks very much" and carry on walking. But if you stop and you talk to them ... for a while then they come back and we start asking questions that they really want to know about. ...

Firefighter X: The biggest thing as far as younger kiddies ... They all want to see the fire engine. ... if you can talk to them and show them things ... it gets across. But if you just [say] simply: here's a pamphlet, take it home and read it. ... forget it.

(Firefighters' Interview #4)

In this respect there is one voice that stands apart from the others. One firefighter pointed out they get "Heaps of feedback from [pamphlet drops] ... on smoke alarms" (Firefighters' Interview #2).

Other NZFS employees repeatedly echoed firefighters' concerns about the value of pamphlet drops. One said that they can "never know what impact [pamphlet drops] have ... It might look very good in the business plan with distributing 20,000 pamphlets but no one really is measuring what impact that's going to have." (National/Regional Interview #1)

Local Resource Needs

Being able to feed back information about educational resources and promotional programmes is particularly important in view of the fact that stations are situated in widely ranging types of communities. One station is likely to need somewhat different materials from another, in order to best reach out to the local community and, specifically, in order to appeal to those at particular risk.

A number of firefighters told stories that suggested a lack of awareness, on the part of those sending out resource materials, of the actual resource needs of each station. In the absence of functioning feedback systems, it is entirely understandable that those who distribute resources may be unaware of local stations' needs. This may leave them able to do little more than distribute generic materials to all stations.

For some, the concern was to do with the quantity of resources being sent to any one station. In some stations, resource materials sit around unused while in other stations there may be a shortage of a particular resource needed to reach out to a certain audience. In some areas, it was felt that the NZFS was being insensitive by sending "glossy" materials to households where people were struggling financially. As one firefighter said: "Fancy sending coloured brochures ... to be delivered in [this suburb] ... people can't afford those glossy kind of things" (Firefighters' Interview #12).

Some firefighters talked about specific resource materials that seem to miss the mark quite significantly.

Firefighter: They [have] come out with a whole pile of promotion stuff ... I don't know who dreamed that up. There's the ... little lunch boxes ... this little wee lunch box ... It's so small! ... Why didn't they come and ask what the kids [want]? Kids don't want that! ... That box there will only be for their morning tea.

(Firefighters' Interview #2)

Some of the firefighters who took part in interviews had been developing their own resource material, and delivering that in addition to standard NZFS materials, because they felt that the materials sent to them did not have quite the right touch. One of these firefighters said "We wanted to make it a lot more personalised, just for that particular area, so that the community knew that we were there for them, and not just a stock standard form" (Firefighters' Interview #6).

Some firefighters envisaged workable communication channels that would enable them to reach out to particular groups within their community and thus contribute meaningfully to domestic fire safety nationally.

Firefighter: I don't think that, on a station by station level, ... those key groups are identified. ... Any promotional programme comes down from ... a national basis, but it's not specific to ... a particular area. ... Good communication is two way communication and ... if we were able to communicate in that manner we could say: ... in this area some target groups are X, Y and Z. In another station's area it might be A, B and C ... and that way, I believe, any promotional programme could be a lot more effective nationally if it was targeted at a local level.

(Firefighters' Interview #2)

Specific Promotions

Although research participants were not specifically asked to offer this kind of feedback through this research project – and providing such a communication channel is not the primary purpose of this project – inevitably some potentially useful suggestions were made in the course of interviews. Some of this feedback will be briefly outlined here.

In the course of interviews, firefighters commented that children's give-aways with fire safety messages on them are generally well received, but that, for the sake of making a visual impression consistent with the fire safety message, "people have said you shouldn't have a happy flame [but rather] an angry flame" (Firefighters' Interview #15) as an image. In the FireWise materials presented to school children, there is a series of large colour pictures, showing a child who discovers smoke in the house at night. This child is shown responding to the smoke in various ways – some of which are fire-safe and others of which are not. Some firefighters interviewed felt concerned that this resource could leave children with clear visual images of what **not** to do in the case of fire. The key information about what **to** do could be forgotten by this very vulnerable audience.

According to some firefighters, "the best thing that's ever happened was ... the TV campaign" (Firefighters' Interview #4). Other firefighters find that fire safety "stickers are really good" for working with children, whereas "there's no point in putting up a display board or photos" because "nobody [goes] near it" (Firefighters' Interview #5). Some firefighters commented on the value of providing free batteries for smoke detectors, while others recounted instances where a particular fire safety promotion was clearly having an impact, for example:

Firefighter: The other night ... a kid came running alongside of the truck and we stopped at the lights and he yelled out "Come on guys, get Fire Wise!" ... and we had one of those lunch boxes which we chucked at him. He thought that was brilliant.

(Firefighters' Interview #9)

The two specific promotions that firefighters talked about most frequently were the FireWise programme for schools and the "condom poster" that had been designed for tertiary students.

There was concern that, because FireWise requires schools to take the initiative and devote a considerable amount of class time to fire safety, it is likely to be missed out entirely by many schools. Firefighters reported that some schools "have said ... we're going to struggle getting it done" (Firefighters' Interview #1) and other "schools have stopped ringing up ... so it's falling away big time" (Firefighters' Interview #5). One firefighter had found problems in the delivery of the resource materials to schools in the vicinity of the station.

Firefighter: Fire Wise has been in six months and we've only been approached by one school. So ... I decided that ... this is not good enough. ... I

discovered that ... they've got a register of schools ... that are funded by the Ministry of Education. So if you have a private school, or schools that aren't Ministry-funded they weren't on that list so they never received [the FireWise materials]. ... So ... the delivery of the actual resources to the schools, I feel, was totally inadequate. ... [Otherwise], I think it is a particularly well resourced and ... researched project.

(Firefighters' Interview #14)

Firefighters from a variety of stations told stories about the infamous "condom poster". The poster, designed by and for tertiary students, used the image of a condom to represent safety, and to translate the notion of fire safety into something that would appeal to tertiary students. That many firefighters were concerned about this poster appears to stem from two things. First, the reason for connecting fire safety and sexual safety – for the purpose of reaching a particular audience – may not have been adequately explained to firefighters. Like many resources, this poster may have appeared on the station and been received by firefighters who had not been told what it was for. Second, even if the poster was explained, it may still not have been clear to firefighters how they would be expected to play a role in the delivery of this particular fire safety message. Is this a framing of fire safety that the firefighters concerned felt comfortable to deliver? How well is any educator or safety promoter likely to deliver a promotion if they feel uncomfortable and uncertain about the materials provided?

A key point to take from this is that, as one firefighter said, "before you can go and promote something you actually have to understand it yourself ... you can't have a passion or a motivation for something that you don't actually understand yourself ... If you actually understand it, believe in what it's trying to promote, ... you go the extra mile. But if you don't know, well you don't" (Firefighters' Interview #2). It is not only a matter of not understanding the poster, it is a matter of creating a context, between educator and audience, that enables the educator to translate fire safety knowledge effectively. Firefighters who had found out what the posters were for, and why they represented safety in the way they did, seemed just as concerned about the promotion as were those who were at a loss to explain why a condom should appear on a fire safety poster. One firefighter, having enquired within the NZFS about the poster, commented: "they said these were designed by students and this is the message you get across to students. ... They said they did research for students ... But there was one big flaw in it: they didn't come along to firefighters and say 'would you be embarrassed handing this out?' – which some guys were."

Firefighters were not the only ones to raise the subject of the "condom poster". Two other NZFS employees also talked about this particular promotion and acknowledged the difficulties with it. One said: "I ... think the material ... provided ... for the student day was really good, it just ... gave ... absolutely nothing to work with. ... no suggestions or anything" (National/Regional Interview #6). This comment is consistent with some firefighters' comments about resources in general: pamphlets and giveaways arrive, but are not necessarily accompanied by an explanation of the promotional plan or the ideas behind the materials. Another NZFS employee commented at greater length, about the

"condom poster" and about the on-going difficulty in communicating among various levels of the NZFS.

Research Participant: [What was sent to fire stations were the] posters and a memo to explain what it was all about - this was the condom poster - ... this and several other ideas had been developed by students as part of national organising group ... [however, at] the fire station ... all hell broke loose ... it was quite amazing ... [For] those that actually read the memo, it wasn't a problem. They understood that this was a poster for tertiary students and it had been backed by tertiary students. [But otherwise, there] was an absolute complete lack of communication. Now, apart from physically visiting every person there wasn't a hell of a lot more we could have done ... so there is an inherent communication issue within the organisation ... [we can] either give one note per station or one note per officer ... or virtually one note per person ... and even then you could still not guarantee, because you might find that certain people were away on leave or they were sick ... So it is ... quite difficult.

(National/Regional Interview #8)

IDENTIFYING AND ADDRESSING "RISK GROUPS"

In the course of interviewing firefighters across a variety of stations, we asked them what they perceived to be "risk groups" within their own areas. As would be expected, different areas have quite different risk groups. Some identified people in lower socioeconomic households, people renting accommodation, and students. Some identified Maori people and people who had immigrated to New Zealand. Working on fire safety with each of these groups may raise a variety of issues and require diverse strategies. In the excerpts that follow, a number of firefighters talk about working with risk groups in their area.

Interviewer: In an area where you know there are these at-risk groups ... how do you target them with your materials?

Firefighter X: We do a lot of pamphlet drops ... particular[ly in] streets where there have been a lot of fires, we drop stuff through the letterboxes and we go and visit the groups, that's probably about all we do really.

Firefighter Y: Yeah. Oh language can be a bit of a problem there too.

Firefighter X: So you can lead a horse to water but you can't make him drink it. ...

. . .

Firefighter Y: The uniform doesn't help either because you're then like a policeman and ... maybe the ... people you're dealing with didn't really like policemen so it was quite hard to get across that you weren't actually a policeman even though they did see a big red fire truck.

(Firefighters' Interview #7)

- Firefighter Y: My biggest concern accommodation-wise is the student thing [particularly] ... where you get a large group of kids ... [living in a] building like a warehouse
- Firefighter X: ... Our highest risk ... would be [that sort of student accommodation] because the student parties and there's alcohol and ... [you've] got no idea what ... state of mind these kids are going to be in. They're burning candles and incense ... and they've got curtains and drapery ...
- Firefighter Y: Semi communal living ... is an idyllic thing for students because when you're at that age you love that sort of thing, ... and you'd remember it for the rest of your life as long as you don't have a fire at all.

(Firefighters' Interview #8)

As these excerpts suggest, it is not easy for firefighters to successfully reach out to the very groups that may most benefit from fire prevention strategies. Relying on pamphlet drops to catch people's attention, grappling with language barriers, trying to reach out to people who are simply not interested listening to firefighters who appear as authority figures – these stories suggest the need for better strategies. Some firefighters specifically indicated that they were ill-equipped to reach the people whose domestic fire safety was likely to be of particular concern.

Interviewer: Do you think you need to be targeting particular groups in order to reduce the risk of domestic fires?

Firefighter X: Yeah. Yep.

Interviewer: ... are you able to reach out to those particular groups?

Firefighter X: No because I don't really know where they are. ... And I don't have the resources or the training. I mean, I could drop a pamphlet in a letterbox like anyone else does.

(Firefighters' Interview #13)

The possibility of "dropping a pamphlet in a letterbox" suggests a one-size-fits-all approach to fire safety. Such an approach may not serve well those in poorer neighbourhoods, among others. Some firefighters queried "the 'best practice' about installing smoke alarms ... [which is] that is people should put one in every room. Now that might be the ideal circumstance but [if] you go to a home ... here, they haven't got five dollars for the battery let alone [more]" (Firefighters' Interview #15). Firefighters are clearly in a position of having to negotiate between NZFS promotional strategies, recommended safety practices, and the realities of the communities they work within.

In reaching out to at-risk groups, firefighters may try to adapt the NZFS materials and practices to suit the people living in their area. Alternatively, they may assume that whatever promotions the NZFS develops are purposefully designed to reach out to at-risk groups and will do so if simply delivered in the standard way. As one firefighter said, "All we do ... is ... [present] information that the Fire Service provides. If the Fire Service aims that information at any particular risk group, then by a proxy we give that to that target risk group. We deliver it. So a lot of that is taken out of our control" (Firefighters' Interview #3).

In some areas, there is a sense that having the right personnel to deliver the fire safety message would be a useful step towards reaching particular sectors of the community. It has already been suggested that firefighters in uniform may be less able to reach out to atrisk groups because of their authoritative appearance. Some firefighters suggested that women may be better received than men in this role of going into people's homes and offering fire safety advice. Others highlighted the complexity of the issues they face, pointing out that "where the fire deaths occur in [some] places ... it's not just a [matter of having a] smoke detector in the house. There's a whole lot of social problems that go with it, like leaving the kids at home by themselves, which is a serious fire risk for them" (Firefighters' Interview #8). This comment points to a possible mismatch between NZFS fire safety strategies (where a focus is on smoke detectors) and the realities of the households where at-risk groups live. With this in mind, there was a call for "the Fire Service ... to put something together to make it easier for [those of us working in] ... target areas" (Firefighters' Interview #8).

Those crews that were attempting to work proactively with risk groups in their communities often expressed the need for better back-up, on a national or regional level, or in terms of personnel, training or resources, in order to improve the effectiveness of the work they were doing locally. Various suggestions were made by firefighters in

relation to reaching out more effectively to at-risk groups. Firefighters talked about the importance of offering free or low-cost smoke alarms and the necessity of having local initiatives backed up by more wide-spread campaigns. According to some firefighters, "The Fire Service ... really need to get out and get [into] promotions a lot more" (Firefighters' Interview #10). They described how they do their own advertising from the station and that they initially pay for smoke detectors out of their own pockets so that they can maintain the installation service for people who then pay them back for the detector. Some firefighters talked about the importance of assessing what kind of approach is actually needed to reach any particular at-risk groups, and what kind of approach could optimally be used in any particular area. Others saw television as a key medium through which a wide cross-section could be reached.

Firefighter: I've always believed if we're keen on fire safety we've got to pump that message by advertising. ... Last night, I saw something about being fire safe for kids which was great. ... But apart from that ... they haven't spent a lot on advertising on TV. It's real cold sell for us. And if you look at the police campaign for drink driving, it's always there, it's in your face. It's constant. ... Firefighters are trying to do the job and it's ... real cold sell.

(Firefighters' Interview #11)

Reaching into people's lives to improve safety means acknowledging the overlaps among social factors and fire risk. Some firefighters saw this as an opportunity for working across organisations to improve fire safety while working on broader social issues simultaneously.

Firefighter: Alcohol, absentee parents, low socio economic [status] are key factors in this country with fires. They are social problems. I mean we've got the Minister of Energy yelling out for people to save ten percent of household power. The same clown should be saying "And while you're attempting to save ten percent, if you're going to resort to using candles or gas cookers, get in touch with your local fire brigade for some fire safety tips!" And the Minister in charge of us isn't ... saying ... "hey, you're sending a good message but [a] dangerous message to some circles! Let's get together. Let's send the same message with a bit of support from your local firefighters." But we pick up the pieces later. ... Those sorts of things frustrate me. When you hear them say "cut down ten percent" and then you wait.

. . .

Firefighter: Statistics will show you that fires ... in households ... usually have these elements in them: alcohol, absentee parents, low socio economic [status]. They're social problems. They're social problems. They should be shared by the community not ... here, we ask firemen to go out and solve social problems. No that's wrong. ... You can target crime prevention. You can target fire safety with the same people delivering the same message because there isn't much difference. And I'm not saying that there's no

role for us firefighters in it but the whole organisation of it has to be shared with people who have social problems as [the focus of] their role. (Firefighters' Interview #12)

Other NZFS employees who were interviewed also acknowledged that reaching at-risk groups was a problem that could not be solved by waiting "to be approached by them". They referred to the fact that those households who approach the fire service and ask for smoke alarm installation are largely "middle class European homes ... The other people aren't asking for assistance" (National/Regional Interview #1). "Low socio-economic groups ... a lot of them ... don't actually identify themselves, other than actually living within a specific area ... The only way that you'll find out is that they've actually burnt the kitchen down" (National/Regional Interview #2).

Some NZFS staff saw potential for reaching out to at-risk groups through a careful reorganising of human resources. One research participant said that, for example, the NZFS "need to be able send Khandallah's crews over to Porirua to help with the socio-economic issues because the Porirua crews might be just busy answering calls all day. ... The same with the city... [they're] out on calls all day, every day and they're not going to even deal with the issues they've got in the way of fire safety because they're too busy" (National/Regional Interview #6). Others saw measurement as a key part of the solution, while cautioning that reaching at-risk groups will inevitably run into the problem of "the law of diminishing returns".

Research Participant: What we do as a Fire Service is try and identify at-risk groups. We do it in a range of different ways. We try and group our fires into statistics and fire losses to a range of other factors or parameters. Now there's a fairly clear link between social deprivation [and fire] frequency. ... You can draw a fairly strong link between large families and fire frequency ... I think the Fire Service has done pretty well ... and we've got a fairly clear picture of where the at-risk group are in the community. What I'm not sure we do well is actually targeting. ... I have a personal feeling that a lot of our promotional and educational material is targeted towards middle New Zealanders and we will only see a significant reduction in fire loss if we actually target more specific programmes in sub-groups within the community. It's pretty hard to do because you suffer from the law of diminishing returns. That the more isolated or the more unique the fire, the more difficult they are to get at and the more dollars and the more energy and resources. How do you put smoke alarms in a thousand homes that are isolated from the community in any case? There's no power, they use candles, open fires and have large numbers of family members and living in substandard conditions: a very difficult group to target. We're trying a whole range of strategies ... at the moment which will allow us to measure how successful we are.

(National/Regional Interview #7)

While various research participants referred to the possibility of members of the public calling the station and directly seeking help with domestic fire safety, there are numerous problems inherent in this approach. Problems that have been identified relate to the fact that most people are not likely to do this, and those who do are less likely to fall into risk groups. Another apparent problem concerns the fact that many stations are not attended most of the time. As one research participant said, a member of the public could "ring stations that don't have anybody on them. The truck's away, there's no one there ... [and] people don't leave messages. So [the NZFS] ... need some sort of central point to answer these questions" (National/Regional Interview #5).

One of the target groups that interacts frequently with firefighters are children. When asked about the educational and promotional work they do, firefighters often talked at length about FireWise and about other aspects of their work that involve children. The targeting of children reflects fire death and injury statistics that show children to be at particular risk, and it also seems to reflect two other things. First, the fact that children are often easily accessible and make a responsive audience. Second, the idea that what firefighters teach children will "trickle-up" to parents, thus influencing fire safety in a wide range of homes.

Firefighters told stories of being called by parents, after a school visit, and asked to install smoke detectors. They talked about giving fire safety materials to children in the hope that their parents would see them and be reminded to practice safety procedures at home. They talked about the relative ease of interacting with a diverse range of children, compared with the difficulty of reaching out to adults (across cultures and socioeconomic groups, for instance).

Firefighter: The kids are actually spreading it really well and ... we've ... had quite a bit of positive feedback from some of the adults ... and they've actually made real changes in their home, such as the escape plans and ... putting a smoke detector programme in.

(Firefighters' Interview #4)

Firefighter X: It's quite good because they'll go home and they'll harp onto their parents ... like if they haven't got a smoke alarm ...

Interviewer: And then you get calls from the parents

Firefighter X: Yeah

Interviewer: "Please come and install our smoke alarm"?

Firefighter Y: Yeah that's right (Firefighters' Interview #6)

Firefighter: You sometimes get children visit the station ... and they say "oh yeah we learnt about that in our Firewise programme" ... You ask them questions and they remember it.

(Firefighters' Interview #3)

It may be useful, at this point, to pause and consider: how well may risk groups be reached through the targeting of children with generic fire safety materials? Some firefighters work from the understanding that:

Firefighter: The parents or caregivers ... are fairly interested in their child when they first start school and ... if they're from an English-as-a-second-language ... background ... the child will go to school and learn English but they take that message home to the parents and they give it back to them in their native tongue. So if you get the message right with the kids, then they can go back and ... educate the parents.

(Firefighters' Interview #10)

How accurate is it to assume that children from diverse cultural and socio-economic backgrounds are successful at educating their parents about fire safety? If there are economic pressures in a household that make fire safety devices unaffordable; if the cultural context between generations is such that it is not seen as appropriate for "children to educate parents", then it is likely that the trickle-up theory may only work for the sectors of the population that are not identified as risk groups. That is, for reaching a diverse range of risk groups via children, the means by which fire safety information is translated may need to be reviewed and adapted more specifically to various economic and socio-cultural contexts.

Working Across Cultures

For the NZFS, reaching out to at-risk groups means working cross-culturally. Reaching out to at-risk groups means finding ways to make fire safety strategies intelligible and appealing across a variety of cultural groups, some of which may be unfamiliar to the NZFS staff who are employed to interface with the community.

To begin this discussion on working across cultures, it may be useful to give examples of some firefighters' responses to interview questions on this subject.

Firefighter: I think with the ethnic groups you're better off to make a tentative approach and hope they come back to you. (Firefighters' Interview #9)

Firefighter: I wouldn't be comfortable with certain groups. As soon as you mention "ethnic" to me, I think: oh God ... I wouldn't be able to approach them. If they approach me and ask me, no problem at all. But to go and approach them, ... I wouldn't feel confident.

(Firefighters' Interview #5)

While some individual firefighters expressed concerns about reaching out across cultures, through their fire safety work, other NZFS staff expressed confidence that individual firefighters were probably doing such cross-cultural work.

Interviewer: Apart from the iwi liaison officer, what is being done in the Fire Service, that you can see, to reach out to different cultural groups?

Research Participant: ... Nothing, yeah. But some crews ... would have their own ways and means, no doubt, of reaching people in their own communities. It's probably just individual.

(National/Regional Interview #5)

Given that the firefighters employed by the NZFS are predominantly white men, it is fair to suggest that there are difficulties to be overcome for firefighters to reach out to at-risk groups with the fire safety message. The firefighters speaking in the first two excerpts above illustrate an aspect of this difficulty, which relates to their personal concerns and uncertainties about working cross-culturally. They also demonstrate that, where such concerns and uncertainties persist, it is likely that the approach to fire safety will continue to be reactive rather than proactive.

Some of the firefighters interviewed saw the need for specific, organisational changes to enable firefighters to do proactive fire safety work cross-culturally, and with Maori people in particular.

Firefighter: We've got an iwi [liaison officer] now, so it's quite good ... but he's got limited funds and resources ... he's got his hands tied. ... he's got ... big areas to hit ... But ... just trying to tackle it – [it's like] playing a rugby match with fifteen guys with just one man on his side. ... (Firefighters' Interview #13)

Firefighter: I'm ... ashamed that the people that I work with aren't ready to work with [Maori] people ... They haven't been learning the basics. ... They still don't understand the concept of the Treaty of Waitangi. We don't have to ... target these groups because the Treaty of Waitangi says you've got to target these groups. We've got to target these groups because governments have let them down over the years so that no longer are they up the top of the food chain, they're right at the bottom ... The people that you're using to target these groups should have some understanding of the Treaty of Waitangi. ... The iwi liaison officer [went] ... to speak to them. ... I could just imagine what he's had to deliver. He's had to deliver marae protocol, Treaty of Waitangi - you can't afford to address it like that. ... Unless you change someone's heart over that issue then you really haven't made a difference. Unless you've touched their heart you really haven't made a difference.

(Firefighters' Interview #12)

Some research participants had specific concerns about resources: from pamphlets that are produced in a variety of languages, to the availability of interpreters. Some firefighters talked about their uncertainty about handing out the appropriate resources to the appropriate group. One said "How would you be if you were a Samoan person and I say 'look, I've got all this stuff here ... in the lingo.' And you ... give [the pamphlet] to

them and it's all in Maori or you give it to the Maori people and it's [in] Samoan ... How the hell do we know which one's bloody Maori and which one's [Samoan]?" (Firefighters' Interview #10). Another research participant pointed out that what could have been a useful initiative for reaching out across cultures – the production of multilingual fire safety materials – has now been discontinued.

In some areas, the key "risk group" identified by firefighters was "immigrants". In such areas, firefighters felt that they could not reach out to those groups because "we don't have the translators on tap" (Firefighters' Interview #15). Along with one request for interpreters came a concern about professionalism and an acknowledgement of the need for culturally appropriate practices. This means, firstly having "people who speak the language, which is going to be Somalian, it's going to be Samoan, it's going to be Cook Island, Vietnamese, Ghanaian" and it means having someone "who will be there for the entire meeting. If we go there and get ... call[ed away] ... it's really unprofessional" (Firefighters' Interview #13).

Some research participants highlighted the need, not just for translation of fire safety information from one language to another, but also for a culturally appropriate reframing of how that information is shared.

Interviewer: Are firefighters [reaching out across] ... cultural groups, gender groups, socio-economic groups?

Research participant: I think marginally. ... We have in schools, for instance, our mainstream Fire Wise programme and I think most firefighters are quite happy to ... deliver that ... We have nothing for Pacific Island people. We have nothing for any other culture. We have our Maori resource just lately which is good, but I'm sad to say it's under funded compared with the mainstream resource ... that's the awful reality. There is no video for the ... Maori groups. ... I think ... they're not really sure how to go about it and they often don't ask the right people. ... They'll pay ... to get this campaign ... and bring back something totally inappropriate I'll give you an example: [The] Fire Wise thing. Just before it started they picked an owl [as an image] ... and that's not a good thing for Maori to have that. The owl is ... a messenger [bringing] bad news. ... They're paying a lot of money to this organisation to develop this ... so someone's not doing their homework.

(National/Regional Interview #3)

Firefighter: Polynesian people have never been a written language people ... they've always been speakers ... [if] the community down the road has invited us around for half an hour to have a talk to them, go and have a talk to them! (Firefighters' Interview #12)

It was acknowledged by people from various levels of the NZFS that reaching out across cultural groups is up to individual crews and is poorly resourced. A number of research participants highlighted that "the only way we can really do it is actually go into the

community" but "we're really not geared up to do that" because "in terms of resources there's very little available" (National/Regional Interview #1). It appears that what needs to be available are resources that frame fire safety knowledge in culturally appropriate ways, as well as the development of culturally appropriate promotional strategies.

The question of resourcing the cross-cultural promotion of fire safety awareness does not only make the difference between a reactive approach and a proactive approach. The excerpts quoted so far may draw a picture of some crews not reaching out across cultures, and other crews having a go at it but not really having the appropriate resources. What is missing from this picture is a sense of what happens when crews are actually forced by circumstances to work across cultures. One NZFS employee began filling in this part of the picture but describing how, "a couple of years ago ... during a fire ban, we had firefighters wandering around putting out umu fires ... where there's absolutely no need for it at all" (National/Regional Interview #1).

A number of firefighters also talked about finding themselves (perhaps unexpectedly) working across cultures. What follows are examples of instances where language barriers inhibited their fire safety work. From the following descriptions, it appears that this difficulty may never have been overcome.

Firefighter: There were areas of low socio-economic groups and mainly ethnic minorities that didn't speak English and those are the ones that we had problems with. ... We had a lot of trouble basically training them to get out of the building because they wouldn't get out.

Interviewer: So what was the trouble, they just refused to do the training or what? Firefighter: Well ... we couldn't communicate with them for one thing. And it was basically ... because they had so many fire calls anyway ... it was just this continuous barrage of trying to get them out of their rooms, telling them to get out of their rooms when the alarms were going but it doesn't matter how [many] times we do it, they just seem to stay put. And it's usually the ones that couldn't speak English that we had the trouble with.

Interviewer: So what did you do about it ...?

Firefighter: Nothing. Just kept going, kept training, it was just like: how do you communicate with them?

(Firefighters' Interview #6)

Firefighter X: I went to [talk to a school group of] new entrants and most of them couldn't speak English. I mean you're standing there and you're talking about the call alarm and the smoke and about call 111 ... You don't feel like the message is getting through.

Interviewer: So what do you do when you're in that situation, [when] you realise it's not working? ...

Firefighter X: Hit the road and get out.

Firefighter Y: Yeah. "I think we've got a fire call, we've got to go!"

Firefighter X: Yeah, hit the alarm on the truck and shut-up and go.

(Firefighters' Interview #8)

Firefighter: I've been to [talk to] ... kids of five and six years old and you're speaking to them and they're essentially a Samoan class and it's their first year of speaking English because they don't actually speak English ... until they actually go to school.

Interviewer: So how do you deal with that. How do you pass on the fire safety message?

Firefighter: Just got to do your best. ... you're speaking to kids at your own pace like you normally do and these kids are just looking at you blank.

(Firefighters' Interview #10)

These various accounts concerning language and culture raise several questions. Is it simply a matter of translating materials and presentations from English to other languages? Or is it a more complex matter of interpreting and reworking fire safety knowledge so that it makes sense to a variety of cultural groups? Can a given fire safety presentation be delivered in the same way to any group, or do presenters need to have some understanding of the culture of the group, and alter their presentation accordingly? Can the same presenter deliver the presentation across all groups, or do presenters sometimes need to be chosen so that they reflect the culture of the group? These kinds of questions, which have implications for recruitment, were addressed by some of the research participants. One said that the NZFS is "working with communities and [has] to reflect those communities and show them our brown faces, Asian faces - people who look like the people we're protecting" (National/Regional Interview #3). Others envisaged ways of bringing members of various cultural groups into the fire service solely for the purpose of doing specific educational projects. One said that the NZFS could reach out to various cultural groups "by recruiting those ethnic groups' leaders and engaging them in taking [fire safety information] back to the communities. So you can bring them in and you talk to them for two or three hours and then they can take it back out and then you can offer them the resources" (Firefighters' Interview #13). Another considered that, rather than targeting leaders, it could work effectively by targeting "these people who ... have got teaching background[s who could then] join the fire service as the educational side of it ... and we go round and we assist them when they go into that school or into that community organisation to put the message across" (Firefighters' Interview #10).

While some firefighters considered that anyone could potentially deliver the fire safety message to any group, for others it made more sense to recruit and teach members of a given community who will then "take it back" to their community. Given the complexities involved in bringing about behavioural changes to improve domestic fire safety, it is questionable whether it is simply a matter of "taking the fire safety message back" to a given community.

While we have been focusing on language as an obvious example of communication difficulties that occur across cultures, there are other ways in which particular community groups could be alienated from the NZFS. One of these ways relates to the perception of the firefighters' uniforms which are not infrequently seen as a sign of authority and sometimes mistaken for police uniforms. One firefighter said "You go into schools"

dressed like this ... and they say 'oh, you locked my Dad up the other night" (Firefighters' Interview #6).

One interviewee, who said that he was not "European," empathised with those who find not only the uniform to be a symbol of authority, but the combination of gender, culture and uniform. He saw this as a distinct disadvantage to firefighters trying to do fire safety work across cultures.

Firefighter: How [are we] going to deliver the message? ... [Even] I find that a bit scary ... a European middle aged man in the house - it's pretty scary. It's like we see the Europeans as ... almost like a school [teacher]. (Firefighters' Interview #15)

Some workers, particularly those based in areas of greater cultural and socio-economic diversity, expressed a keen desire to be doing locally appropriate fire safety out-reach. Many of the research participants quoted in this discussion of working across cultures were talking about how they try to do this. While they identified the fact that they face numerous difficulties, they were basically emphasising the need to work cross-culturally and to have the resources and awareness necessary to make this work effective. The research participants quoted in this section are not representative of all the research participants. Some tended towards the line that fire safety work can take a fairly standard, generic approach across the whole population and that tailoring fire safety strategies to specific cultural groups would be expensive.

Research participant: It doesn't matter whether you're Pakeha ... Maori ... or Chinese - the smoke alarm doesn't care what colour you are, it just detects smoke ... We may have a different message on how we get that introduced into the house compared with a Pakeha house, but you're still doing the same basic sorts of ... issues: don't put your heater too close to your chair. Now you may have to just give the message in a slightly different way so that you hear it ... But you're still saying the same thing every day. ... People are getting a bit hung up, and missing ... that linkage. ... They think you've got to develop a whole new angle ... on fire safety and you don't. ... Now we do have some literature in Maori, although again anecdotal evidence from [firefighters] ... is that, not a lot of people can actually speak Maori. ... Then what happens: other people come up and say "oh, we've got ... Somalis" ... and so on. The feedback we're clearly getting at the end of the day is that it doesn't matter what ethnic groups you're talking about, there is generally someone there who actually can speak English and who is more than happy to translate it back to the family or to the group ... If we try to go too much into individualising language-wise ... it's very, very expensive

(National/Regional Interview #8)

What is highlighted in this section is that tailoring fire safety strategies and materials to specific at-risk cultural (and socio-economic) groups is vital for firefighters involved in

proactive domestic fire safety promotion across a range of communities. Through this discussion, we see frequent references to language barriers, as though these are the only problem that exist when working cross-culturally. We also see frequent references to "translation" (in a linguistic sense) of fire safety materials, as though simply putting the materials in a non-English language will suffice. Clearly, much attention also needs to be paid to the visual images that go with the language and to questions of who presents the materials and how. Finally, this section reiterates the theme that focusing on smoke alarms and evacuation plans as primary domestic fire safety promotion strategies leaves dangerous gaps. Assuming that "the smoke alarm doesn't care what colour you are" leaves open the possibility that the human interactions that must go with smoke alarm installation and maintenance continue to be seen as less important than the smoke alarm itself.

VISITING PRIVATE DWELLINGS

Research Participant: We are very, very lucky ... We are one of the few organisations – uniformed organisations – that can virtually go into anybody's home at any time without any problems ... Right from day one we've been ... invited into somebody's house ... the publicity – you couldn't pay for [that] sort of thing. ... We're not knocking on somebody's door trying to get in. They're ringing us up and saying "hey, would you come [and] visit?"

(National/Regional Interview #8)

Aspects of firefighters' preventative work involve entering homes, often for the purpose of installing, testing, or maintaining smoke detectors. Interviewees across various sectors of the NZFS saw this as an excellent opportunity for the translation of fire safety knowledge from firefighter to resident. (Here, we are referring again to "translation" as a sociological model rather than "translation" in the linguistic sense.) Being invited into someone's home, it seems, paves the way for a friendly, educational interaction that can be specifically tailored for that particular resident in that particular building.

This aspect of firefighters' work is of interest because previous research (Lloyd and Roen, 2001) has highlighted the diversity of practices employed when firefighters enter private dwellings and has suggested that there is room for developing practices that better enable the transfer of fire safety knowledge from firefighter to resident. In the present research, we examine what firefighters say they do in people's homes, what other NZFS employees think firefighters do in people's homes, and what this may mean in terms of the translation of fire safety knowledge to vulnerable groups.

Initial questioning of NZFS employees about what happens when firefighters enter private dwellings, and how they are prepared to make the most of this educational opportunity, suggested that the opportunity for transferring fire safety knowledge is being under-utilised. Further, responses to interview questions suggest that, when firefighters are under-prepared for entering homes, this may contribute to the difficulty of translating fire safety knowledge across cultures and make it hard to connect with the very groups that often suffer the most from domestic fires.

Interviewer: Are there protocols or is it all up to individual crews about how you go into a place?

Research Participant: There's no real protocols or ... training for the guys at all really. ... Nobody's saying: okay, if you go into a Somali house ... this is what they'll expect you to do. If you go into a Maori and Pacific Island house, this is what it should be ... There's none of that. Really, it's not safe for our guys ... We ask a lot of them in terms of interacting with people, but there's no [way] we support that sort of work.... I guess the assumption is that ... we're going into human's homes [and] they're all the same, aren't we? We're not!

(National/Regional Interview #3)

The research participant speaking in the above excerpt reiterates a point made in the previous section: the process of installing smoke detectors is not culturally neutral. This research participant and others acknowledge that there are not standard procedures, and there is not formal training, to aid firefighters in working appropriately in private dwellings.

Interviewer: What sort of protocols are in place so that they are sensitive to that person's dwelling?

Research Participant: ... There's only four firefighters ... so one would tend to stay outside, three would go in and install [the smoke alarm], one hold the ladder, one up the ladder and normally also ... one of the crew members would be talking to the occupant ... We wouldn't all arrive at the door at the same time. I mean they shouldn't all arrive at the door at the same time. That's a good point, I don't know if we actually talk about those protocols. It's interesting. It's an interesting point you raise ... I need to find out. Thank you ... that's raised a question in my mind.

(National/Regional Interview #4)

While there is an awareness that firefighters are not currently well prepared – or prepared in any standard or formal way – for entering private dwellings, there is also a keen awareness of the potential value of what firefighters could be doing (and perhaps, in some cases, are doing) when they interact with residents.

Research Participant: If you're going to get return on this investment (in beanie talk), you've got to get in their home. ... You need to get in the door in such a way that they accept you being there, you're not threatening ... We don't want to appear threatening or in the face of the people ...

Interviewer: So you've got a prime opportunity, then, when people ask you to come in to install smoke detectors?

Research Participant: Yep, then ... don't just go there and do the smoke detector! (National/Regional Interview #5)

Research Participant: It's a pretty unique opportunity in that very few government-based organisations get the sort of access to people's homes. ... I think ideally ... before [firefighters] visit somebody's home ... we [would] give them some preliminary information which might be ... a letter drop ... to say: here's what happens [when] your Fire Service visits. ... We should be doing home fire safety audit ... that says that here are the aspects about your home that are safe and unsafe. Here are the central things you might do to improve your safety. ... Do you have an escape plan? We'll help you develop that. And are your smoke alarms in the right place? ... Why do you store petrol, say, in the ... garden shed? ... Smoking information: safe smoking. ... We're in the business of changing behaviour and we need to be able to advise people how to change their behaviour ... We

need to be able to deal with all the different types of family situations and I don't know that we prepare our people very well for that. I don't know that they would be prepared to walk into an all Maori situation ... I'd also want to be in there providing a ... survey so that ... the householder will be able to mail it to the Fire Service at no cost so that we can survey how effective our people have been.

(National/Regional Interview #7)

Protocols and Practices

We just ... wander up, as normal people do, with a ladder and a drill. (Firefighters' Interview #7)

The firefighters interviewed were asked to talk about their standard practice for entering a private dwelling for non-emergency reasons. Their responses tell us three main things. First, different crews have different ideas about what the "unwritten protocols" might be. This concerns the number of people who enter the home, the reasons why there may be one, two, three, or more firefighters entering the home, and whether or not they might offer to take their shoes off at the door, among other things. Second, different crews have different ideas about the purpose of their visit: are they there simply to install a smoke detector, or are they there to offer fire safety information as well? Does offering fire safety information mean leaving behind some pamphlets, or does it mean facilitating a discussion with the resident where s/he is encouraged to ask questions and learn interactively? Third, not all firefighters translate NZFS fire safety information to residents in the same way. Some add their own variations, or tailor the information according to the audience. This may mean making different suggestions in different households regarding the number of smoke detectors required (per so many rooms) or giving different advice regarding whether to sleep with doors open or closed. Some of these differences across crews reflect the differences between volunteer and paid crews, some may reflect different levels of comfort in taking up an educational role, and some seem to reflect firefighters' personal opinions.

Interviewer: When you go into someone's house like that, are there any protocols that you have in place about how many of you go in ...?

Firefighter: Never on our own. Interviewer: Never on your own?

Firefighter: No

Interviewer: So more than one but not all four of you?

Firefighter: No, no. ... The truck has to go out which means four of us go out there and there's no sense of four of us all piling in the house - all wandering around the house looking here, there and everywhere. So generally it's just two of us will go in.

Interviewer: Right and you tend to walk right through the house?

Firefighter: Yeah, we'll get the owner to show us around the house and any queries or dangers that they think of ... [we] just correct them or offer them advice on what we see and then our suggestions.

(Firefighters' Interview #2)

Interviewer: When you go out to put a smoke alarm in a house ... how many people would go out at once to do that?

Firefighter: Just one, generally ...

Interviewer: ... when you go out and someone's trying install a smoke detector, do you just install the detector or [do you have a] ... kind of spiel that you give them at the same time?

Firefighter: ... We've got handouts to give them, give them those and just if they ask, just give them general information about fire safety and nine times out of ten they'll say: well come and have a look around the house, and just point out the bits and pieces that you may see.

(Firefighters' Interview #3)

Firefighter: It's sort of unwritten protocol ... you don't want to swamp them with us ... So probably ... it generally takes two of us or maybe three occasionally but generally two. It takes two of you and you've got one to talk to the householder ...

(Firefighters' Interview #4)

Firefighter Y: We don't have ... formalised ... protocols.

Firefighter X: Shoes off, always shoes off. ... We always explain ... what to do about changing batteries. ... Change your clock, change your battery. But that really is twice a year isn't it? ... They've all said that. I've never used that. I say: ... birthdays or just something that you remember, or they may be quite happy to wait until it beeps. I do personally. I wait until mine beeps... at home.

(Firefighters' Interview #1)

Interviewer: And so when you go around do you have any kind of protocols ...

Firefighter X: Most of the time we're warning people ... to expect the fire truck, the fireman to show up ...

Firefighter Y: Sometimes we give them a few pamphlets or we used to come back to the station and write a little letter up saying to change the battery every year and chuck a few pamphlets in there as well.

(Firefighters' Interview #7)

Interviewer: Oh okay, so when you go into someone's place to install detector you also walk through and talk to them about other things?

Firefighter X: Yes ...

Firefighter Y: Very high percentage of the time we'll do it. ...

Interviewer: Is that a kind of a protocol that the Fire Service sets up ... or [do you] you ... figure out on the day.

Firefighter X: Oh, it's spur of the moment, isn't it?

Firefighter Y: Yeah. Yeah. ... You talk to people, you know, and it just leads on. (Firefighters' Interview #6)

On the topic of giving fire safety information to residents, firefighters were sometimes wary. Clearly, they were cautious about being in someone else's space and coming across as intrusive. Some were concerned about the liability of offering advice that is not exhaustive. Others talked about how they carefully tailor what they say so as not to offend.

Firefighter: Some people might like ... a bit of a service as to whether they want us to look around the whole house ... and I suppose that is something that we could actually offer ... But I hope nothing happens later on down the track and it's something that we may have missed. We're opening up a bit of a can of worms I think

(Firefighters' Interview #1)

Firefighter: We have to be very careful when we're in people's homes if we point out the error of their ways.

(Firefighters' Interview #8)

Firefighter: First of all, you've got to sort out the person and whether they can take the advice. Sometimes you've got to package it in different ways so that you're not seen to be rude or snooping. You put it in a manner that ... won't offend anybody.

(Firefighters' Interview #14)

Some talked specifically about working with Maori or Pacific peoples and some indicated that they took a more proactive approach than others.

Interviewer: What do you do when you're going to someone's house ...

Firefighter: ... A lot of it's to do with the greeting. You ... can't miss with 'kia ora' if it's a Maori or even if it's not a Maori because most Polynesians will either say 'kia ora' or 'talofa."

Interviewer: Do your colleagues, the people you work with, do that or it's just you?Firefighter: Oh no, I've heard the odd one or two. Yeah I've heard the one odd or two of them but none of them would be comfortable to say 'talofa."(Firefighters' Interview #12)

Firefighter: [Someone] might ring up and ask a question ... and we push: look, we can come round and have a look for you if you like - it doesn't cost anything. And we can install the alarms for you and you might even get some free batteries ... And that turns them on a bit.

Interviewer: So you go in, you install it, what else do you do while you're there? Firefighter: We're a little bit careful about what we say about the house and anything like that, other than fire safety things. But if there is anything then we do mention it.

(Firefighters' Interview #5)

We have quoted such an extensive range of transcript excerpts on this topic to demonstrate the considerable diversity in approaches and understandings. Clearly, some firefighters are wary of acting as educators, some crews are better prepared than others for entering a Maori household, some firefighters glide comfortably through the situation on the basis of their interpersonal skills, while others worry that what they do or do not say leads to legal liability. Where the audience is so willing that they have invited members of the NZFS into their home, there is a prime opportunity to facilitate context-specific, culturally appropriate translation of fire safety knowledge. The sense that this opportunity is being under-utilised is conveyed strongly by research participants.

FACILITATING FIRE SAFETY PROMOTION

In the course of discussing, with NZFS employees working nationally and regionally, the fire prevention work of firefighters, what emerged was quite a consistent and comprehensive picture of how the firefighters' promotional work could be better facilitated by the NZFS and, ultimately, made more effective. Basically, research participants drew an "ideal" picture of firefighters who would be trained adequately to carry out promotions, supported by specialist staff, and rewarded appropriately. The specialist staff would coordinate the promotional work across a number of stations and watches, back crews up by continuing the promotional work when the crew is called to an emergency, and facilitate the interface between the NZFS and specific cultural, socioeconomic, and age groups in the community. Specialist education/promotion staff could also help reduce the difference in community outreach between one station and another. (Such differences may occur where some stations have more time or greater skills than others to do such work).

In the context of picturing an "ideal" scenario for firefighters doing promotional and educational work, research participants emphasised the importance of face-to-face interaction between NZFS staff and the public, and the importance of ensuring that that interaction is culturally sensitive. They also emphasised the need to make such work attractive to firefighters and not assume that all firefighters are suited to such a role.

Research Participant: We would need ... specific people to do [the educational/promotional] role. ... Unless the firefighters are prepared to do that as part of their base day activity ... I think the reality is that a lot of them are quite reluctant. A lot of them aren't trained for it and it's not fair to ask them to do that. And they may not be the best person to do that, especially with a lot of the different cultures that we need to speak to. (National/Regional Interview #3)

Research participant: That's what we need. Someone who's going to arrange the promotional [work] ... and allocate the work to a particular watch. ... It wouldn't take them very long to realise what people have ... existing skills. ... There's a couple of Maori boys on the shift ... they would work out in that community, be accepted immediately ... it needs someone within the larger districts to coordinate that role. The regional office is remote from what goes on here. ... They measure the results of the national advertising campaigns ... That's all very well, but those measurements are still probably not coming from the target groups. (National/Regional Interview #1)

Research participant: Honestly, as an organisation we're not concentrating on [reaching out to at risk groups]. ... It would be far better for an individual to go into those communities and work away at those things. It would probably be more acceptable. But ... you need specialist staff to do that.

... We've got the firefighters there, but we still need some specialist people.

(National/Regional Interview #1)

Firefighters themselves also saw the benefit of employing staff who could work alongside them in their domestic fire safety promotion, specialising in educational work.

Firefighter: I suppose if there is a dedicated person doing the job and ... it's a full time job they could focus [on the educational aspect] ... We're focusing on everything ... half way through doing a school visit you get a call ... we're gone and [the] poor teacher [is] sitting there with thirty screaming kids.

(Firefighters' Interview #6)

Firefighter: It can be a one-man job ... you send the fire truck with four guys on it and it's bloody crazy. It is absolutely crazy. You could have a guy set up with a van ... just in his blue shirt ... and you go round and do [promotional work] ... one person. ...

Interviewer: ... Do you think that person needs to be a firefighter?

Firefighter: Doesn't even need to be a firefighter.

(Firefighters' Interview #14)

CONCLUSIONS AND RECOMMENDATIONS

Safety knowledge is repeatedly created through social interactions: knowledge about fire safety is translated in particular ways during firefighters' training; firefighters are then employed by the NZFS to work with the public, recreating fire safety knowledge through their interactions and participating in the translation of that knowledge. Through these kinds of interactions, and through the process of translation, fire safety knowledge becomes meaningful and useful in specific private dwellings. The success that the NZFS has in reducing the fire-vulnerability of particular sectors of the community through the promotional work carried out by firefighters depends upon the successful translation of fire safety knowledge through interactions between firefighters and the public.

Interviews with firefighters and with other NZFS employees at regional and national levels offer a detailed and useful picture of how fire safety knowledge is currently being translated within the NZFS and how this may be more or less effective for reducing fire risk within particularly vulnerable groups. Analysis of these interviews suggests specific ways in which the NZFS could enhance the translation of fire safety knowledge and therefore be instrumental in the further reduction of injury and death from domestic fires.

What follows are specific recommendations and suggestions that have emerged from this research. The points raised here reflect areas that may need work, according to the reports of research participants, however, the following points are not intended to suggest that some work has not already been done in these areas.

- The most efficient and thorough approach to improving fire safety in Aotearoa / New Zealand will involve the sharing of knowledge and useful practices across stations and across regions. This exchange would ideally occur at a variety of levels within the NZFS and involve employees who are at the planning, the management, and the delivery levels of fire safety promotions.
- ♦ Ideally, promotional materials and processes will be tailored with an understanding of the populations in the vicinity of each station. This means the development of physical resources and promotional programmes and strategies to appeal to specific atrisk groups. It also means that some fire stations will receive − or have access to − different materials than others, according to the needs of their local community.
- Fine tuning firefighters' delivery of domestic fire safety promotions may entail assessing the aptitude and willingness of firefighters to carry out an educational / promotional role and offering training to those who wish to develop in that area. Clearly, if followed this means a broadening of firefighters' duties for those chosen or who opt to develop in the educative role. Consequently, this development would need careful discussion with firefighters and their union representatives; since this suggestion has itself come out of interviews with firefighters there is already some ground here for furthering organisational discussion on this matter.
- ♦ The NZFS could enhance the development and delivery of domestic fire safety promotions by seeking and using firefighters' constructive feedback regarding promotions. Through firefighters' community involvement, and through the use of feedback channels within the NZFS, those developing resources could have a better

understanding of what kinds of resources are likely to be useful for particular sectors of the community and for particular geographic regions. Better reaching specific communities, improving on previous promotions, and increasing firefighters' buy-in to promotional processes may hinge on this recommendation.

- ♦ Firefighters' non-emergency visits to domestic properties represent opportunities to engage with residents and help them develop fire safety knowledge specifically applicable to their own home. These visits also present situations where firefighters may demonstrate a sensitivity to the protocols for entering another's home and facilitating culturally appropriate interactions. It is important to develop knowledge within the NZFS of how to optimise these opportunities
- Reducing the domestic fires suffered by some sectors of the community urgently requires the development of the NZFS's capacity to work effectively and sensitively across cultures. This may have implications for recruitment, training, the development of promotional resources, the way that domestic fire safety promotion is carried out, and by whom it is carried out.
- Developing the capacity of the NZFS to do promotions that reach out to specific vulnerable groups may also mean funding targeted resource development and promotions, and ensuring that existing out-reach strategies are not confined to one or two regions but are employed nationally as appropriate.
- ♦ Doing effective domestic fire safety promotion with at-risk groups means reducing the factors that have been identified as making it difficult for firefighters to engage with the public in some instances, i.e. language barriers, the fact of being called away to an incident during an educational presentation, the perception of the firefighters' uniform as an unwelcome symbol of authority.

These recommendations and suggestions may be understood as a series of strategies through which more effective fire safety promotion may be possible. These strategies are conceptualised on the following page as providing a support structure through which the concerns raised in this report may be addressed.

EFFECTIVE FIRE SAFETY PROMOTION			com	mun	capacity to reach of ity and facilitate the edge in ways that re particularly for vu	e translat educe don	ion of fire saf nestic fire risk
QUALITY CONTROL			tran	slatio	g to identify and ado on of safety knowle tions with diverse s	edge throu	igh firefighte
STAFFING, TRAINING, COORDINATION		Ensuring that the in fire safety provided will not be called incident of present.	oresentations ed away to an during a		Employment of workers who support and coordinate firefighters in their safety promotion role		Recruitn (existing a well-su promotion v vuli
INTERACTIVE PROCESSES WITHIN THE NZFS	Optimising use of locknowledge and community-involvement station level to ensure availability of station appropriate resource		nt at re		haring knowledge d practices across NZFS regions	between to elicit feedl	engagement hierarchies t firefighter back and ace buy-in

Figure 1.Facilitating the effective translation of fire safety knowledge: key research recommendations

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