Fire Research Report

Exploring Digital Approaches for Improving Safety Behaviour in Older People

Litmus Limited

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The Fire Service commissioned this research to explore social marketing approaches using digital channels to improve the safety behaviours of older people aged 65 years and over. The objectives of the research were to:

- identify best practice social marketing approaches for older people

- determine older people's preferred digital communication channels for social marketing messages

- develop a set of methods and lessons for use by the Fire Service in future social marketing campaigns aimed at older people.

There is evidence that increasing proportions of older people are using the internet and social media, and this is likely to continue to increase as a new generation of older people are moving into retirement who will have used social media in their working and personal lives. This research shows that at this time, while there is some use of social media among older people its use is limited (i.e., it is not commonly used for dialogue, interaction or conversation) and there are some strong negative views towards social media. Therefore, while there is value and utility in developing an online space targeted towards older people as part of a wider social marketing strategy, the use of social media is not an important focus at this stage.

For these reasons, social media and online tools need to be considered as future tools that are part of a wider social marketing strategy focused on older people. Social marketing experts also note that online channels, including social media, are rapidly changing and the future use in this space needs to be considered in shorter terms of two years.

Exploring Digital Approaches for Improving Safety Behaviour in Older People

Prepared for
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1. Executive summary

1.1   Background and objectives

Vulnerable groups are a research priority for the New Zealand Fire Service (the Fire Service) 2012–13 contestable research funding round. One of the vulnerable groups of focus is older people aged 65 years and over.

The Fire Service commissioned this research to explore social marketing approaches using digital channels to improve the safety behaviours of older people aged 65 years and over.

The objectives of the research were to:

- identify best practice social marketing approaches for older people
- determine older people's preferred digital communication channels for social marketing messages
- develop a set of methods and lessons for use by the Fire Service in future social marketing campaigns aimed at older people.

This research builds on previous Fire Service research focusing on vulnerable audiences, the use of digital media, and how effective it might be in conveying fire safety messages. This research will help the Fire Service to determine possible social marketing initiatives for engaging older people using digital channels.

1.2   Method

This report discusses the findings and their implications from primary data gained through in-depth qualitative research methods.

Four focus groups were held with older people who are moderate to high internet users. The groups explored current and past use of the internet and social media and, home safety behaviours and activities, and how the internet can be used to deliver fire safety messages to older people and improve fire safety knowledge.

In-depth interviews were held with two topic experts in digital social marketing and technology use in older people, and three Fire Risk Management Officers. A brief document review was also undertaken.

Results from all sources were analysed and key themes identified to meet the research objectives.

1.3   Summary of key findings

Older people's risk of harm from fire: Review of evidence

In the five years between 2008 and 2013, 31% of fire fatalities were people aged 60 years and over (New Zealand Fire Service, unpublished). Older people are at increased risk of harm as a result of fire exposure and response (Chalmers, 2000). There is an increased risk of being exposed to fire from dangerous habitual behaviours, hoarding, making do with old and unsafe appliances and electrical equipment, and a reluctance to ask for help. There is also a reduced ability to respond and escape from a fire because of physical or mental impairments and limitations. There is a higher risk for those who live alone and with low socio-economic status.

The identification of older people as an at-risk group for fire harm is of increasing importance when considering New Zealand's aging population. In 2005, 12% of New Zealand's population was aged 65 and over. By the late 2030's, projections show that more than one-in-four people will be aged 65 and over (Statistics New Zealand, 2006).

There are challenges to providing fire safety interventions for older people. These include a belief that their homes are safe and they are unlikely to be at risk, deeply engrained routines that resist behaviour change, defending independence, and a lack of ownership.

Older people's use of digital technology: Review of evidence

Social media can be used as a lead medium or in a supporting role to traditional media, depending on the objective and intended audience. It is different from traditional media in that it is not just about broadcasting, it is about dialogue, interaction and conversation. Use of social networking is increasing among older people, with the proportion of people aged over 55 years using social networking doubling since 2009 (Statistics New Zealand, 2013).

Older people's use of the internet is also changing and becoming more prevalent. For people aged 65–74 years, the proportion of people using the internet has increased from 39% in 2006 to 61% in 2012. For those aged 75 and over there was an increase from 17% to 32% over the same period (Statistics New Zealand, 2013).

New Zealand Fire Service's response to older people

The Fire Service has an online presence with a website, Facebook page, YouTube videos and Twitter account. These forums are not currently targeted towards use by older people. Most activities targeting older people are delivered through regional Fire Risk Management Officers and use community networks and hard copy materials to deliver fire safety messages.

Central to the role of the Fire Risk Management Officers are the partnerships and working relationships with other organisations that have older people and / or safety as a focus of their work. However, there are continuing challenges in being able to get safety messages to all older people in the community.

Older people's views of home safety

The group discussions with older people revealed that fire safety is not a primary safety concern, and people generally considered their homes to be safe. Primary safety concerns were slips and falls, security from burglaries and, for the Christchurch group, earthquake safety.

Fire risks were largely thought to be controllable. Participants commonly engaged in fire safety behaviours such as having working smoke alarms installed, not drying clothes close to heaters, not overloading power sockets and multi-plugs, and checking heating devices are turned off before going to bed or leaving the house. There seemed to be heightened fire safety awareness among those living in apartment buildings.

There were, however, gaps in older people's fire safety behaviours. Gaps included a lack of an established escape plan, checks of appliances, deadbolts on windows restricting exit points, and two participants did not have a working smoke alarms installed.

Older people's internet and social media use

Participants' internet use is frequent however, it tends to be dipped into for a specific task. It is not a continual part of their day. Participants' internet use is transactional and purposeful, and it is closely linked to what is happening in their lives. The main uses of the internet are seeking information, events and entertainment, transactions and purchasing, hobbies, connecting to family, puzzles and games, and television.

Participant's internet and social media use can be categorised into three groups. Most common were the internet users who only use internet functions and no social media. The next most common were those who had used social media in a non-participatory way for receiving information and not for interacting. The third group was uncommon and involved active conversational use of social media.

1.4   Conclusions and future considerations

A focus on fire safety for older people is important given older people are at increased risk of harm from fire, New Zealand's population is aging, and there are risk factors that are particularly relevant for older people.

The challenge for the Fire Service is making fire safety relevant for older people, as older people may not view themselves as being at risk, and are more concerned about home safety issues such as burglaries or earthquakes which are considered more relevant, more likely to happen, and unpreventable.

The Fire Service need to consider how to increase the relevancy of fire safety with older people, and whether online tools can be used to achieve this. Social media and the online environment in general, is an area of opportunity for the Fire Service. There is evidence that increasing proportions of older people are using the internet and social media, and this is likely to continue to increase as a new generation of older people are moving into retirement who will have used social media in their working and personal lives.

The findings from this research suggest there is value in developing an online space targeted towards older people as part of a wider social marketing strategy. However, the use of social media is not an important focus at this stage. Social media can be considered for tools for use in the near future that are part of a wider social marketing strategy focused on older people.

2. Introduction

2.1 Background to the project

The New Zealand Fire Service (the Fire Service) identified targeting vulnerable groups as a research priority for its 2012–13 contestable research funding round. One of the vulnerable groups of focus is older people aged 65 years and over.

The Fire Service commissioned this research to explore social marketing approaches using digital channels to improve the safety behaviours of older people aged 65 years and over. This research will help the Fire Service to determine possible social marketing initiatives for engaging older people using digital channels.

This research builds on previous Fire Service research focusing on vulnerable audiences (including older people), the use of social networking and/or digital media among at-risk groups and how effective these might be in conveying fire safety messages.

2.2 Research objectives

The objectives of the research were to:

- identify best practice social marketing approaches for older people
- determine older people's preferred digital communication channels for social marketing messages
- develop a set of methods and lessons for use by the Fire Service in future social marketing campaigns aimed at older people.

2.3 Research approach

A mixed method data collection process was used to respond to the research objectives, including:

- **Brief literature review:** The focus of the review was to identify best practice in digital social marketing approaches and tools for older audiences, and how other campaigns use digital tools and social media with older people. It also reviewed the evidence on risk rates and older people's perceptions of fire safety.

- **Discussions with topic experts:** Two interviews were conducted with topic experts in digital social marketing and technology use in older people. These interviews provided contextual information on social marketing approaches in New Zealand, how social media can be used in social marketing, older people's use of digital technology and how this is changing over time.

- **Focus groups with older people:** Four focus groups were held with older people in Christchurch (seven women), Wellington (six men), Kapiti Coast (seven women) and Auckland (six men). Participants were recruited through SeniorNet, recognising that SeniorNet members are the target group for this research as they are older people who are

moderate to high internet users. General public recruitment was also used to add to the pool of people in the Wellington area. The groups explored current use of the internet and social media and how this has changed over time, home safety behaviours and activities people undertake or want to undertake to keep people safe in their homes, and how the internet can be used to deliver fire safety messages to older people and improve fire safety knowledge.

- **Qualitative interviews with Fire Risk Management Officers:** Three interviews were held (one face-to-face and two by telephone) with the Fire Service Fire Risk Management Officers covering Christchurch, Wellington and Auckland. These interviews were conducted to gain an understanding of the activities and initiatives Fire Risk Management Officers do with older people in their communities, what works well and what the challenges are in working with older people, and how digital tools can be used to improve the fire safety knowledge of older people.

- **Workshop:** Emerging findings were presented to the Fire Service to discuss the relevance and connection with the Fire Service operational and strategic direction. This discussion helped inform the development of this draft report.

See Appendix A for further details on the approach and Appendix B for discussion guides and consent forms.

2.4 Research caveats

Litmus is confident that this report accurately represents the views and perceptions of the participants who contributed to the research and is supported by the wider literature review. The consistency of themes across data streams (across the four groups, literature review and stakeholder and expert interviews) strengthens and validates the findings presented.

In considering the findings of this research, the following caveats are acknowledged.

- The literature review was brief and was not a systematic literature review. Care was taken to search for and include key New Zealand and international documents to describe the evidence base. Limited evidence was found on 'what works' when using social media as a social marketing strategy for older people. This may reflect the relatively new and emerging nature of this topic. Litmus cannot guarantee that all literature relevant to the research topic was identified and included in this report.

- The participants in the focus groups with older people were purposively sampled from SeniorNet. Participants were selected for being moderate to high internet users and early adopters of digital technology. Participants are not necessarily representative of people aged 65 years and over in New Zealand who are moderate to high users of the internet.

3. Profile of participants

The focus groups with older people show variation in the profile of people by their age. In general, we found notable differences between those aged around 65 years to those aged 75 to 80 years, and those aged 85 years and over (see figure 1).

People aged around 65 years: Those near to 65 years are more likely to be newly retired, they are physically well, active, busy with volunteer or part-time work and making travel plans.

People aged around 75 years: The middle group of people tend to be slowing down their activities and thinking about downsizing their homes.

People aged 85 years and over: People in the 85 years and over group are more likely to be dependent on other people or services and are more likely to be living in smaller homes with reduced mobility.

This is a generalisation to demonstrate the difference by age within this group of older people. There is evidence, however, that people age with 'differing degrees of success', with those aging most successfully living longer and having a better quality of life (Andrews & Clark, 2002).Therefore there are people in our focus groups who do not fit in this generalised continuum.

Figure 1:   Profile of participants by age

65 years		85+ years
• **Golden years**	• Less travel	• **Increasing dependency**
• Just retired	• Not working	• More likely to be living alone
• Busy	• Less busy	• Moved into flat or retirement village
• Hobbies and interest groups	• Some financial and health challenges	• Health challenges
• Travel	• Starting to downsize homes and belongings	• Reduced mobility
• Part-time or volunteer work	• Provide childcare for grandchildren	
• Physically able and well		
• Living in family home		
• Provide care for older parents or childcare for grandchildren		

4. Review of the evidence on fire safety and social media

The review of fire safety literature investigated the evidence on risk rates and risk factors for older people, interventions targeted towards older people and the challenges and success factors in working with older people. The review of digital approaches and tools for older audiences included evidence on how older people are using the internet and social media, and best practice for using digital tools and social media.

4.1   Who is at risk of harm from fires?

Some communities and population groups are more vulnerable than others to house fire fatalities and injuries. A literature review undertaken in 2000 highlighted the three most vulnerable groups as: children under the age of five, people with low incomes, and adults aged 65 years and over (and even more so, adults aged 75 years and over) (Chalmers, 2000).

During the five-year period from 1 July 2008 to 30 June 2013, statistics from the Fire Service show there were 142 fatalities related to fire incidents. Of these fatalities, 31% (44 people, 28 males and 16 females) were aged 60 years and over (New Zealand Fire Service, unpublished).

The Fire Service has clearly identified older people to be at increased risk of fire. The identification of this at-risk group is of increasing importance when considering New Zealand's aging population. The proportion of people aged 65 and over increased from 8% in the 1960s to 12% in 2005, and it is projected to increase significantly in the 2020s and 2030s. Projections show that from the late 2030s, more than one-in-four people in New Zealand's population will be aged 65 and over (Statistics New Zealand, 2006). The growing size of this population group emphasises the importance of reducing the risk of harm for older people and finding cost-effective ways to reach a large number of people.

4.2   What are the risks?

Most fatal fires occur in residential homes and are largely a result of unintentional and preventable causes (Miller, 2005). A Fire Service-funded study of 131 deaths from residential fires from 1997–2003 examined the behaviour of victims in the cause of the fires starting and outcome of these fires. Miller (2005) found that victims are often involved in interactions with fire, either with behaviours causing the fire (eg, inadvertent acts, carelessness or acts of omission) and/or in responses that may have fatal consequences, such as not shutting doors and trying to fight the fire. Miller (2005) identified the following key factors in the cause and impact of residential fires causing death.

- The main causes of residential fires are: unattended cooking, careless smoking, unattended burning candles and children playing with fire.

- The risk of fatal fires increases at weekends and at night between 7pm and 7am, which relates to sleep being a common factor affecting victims' timely response to fire.

- Fires most commonly start in bedrooms, kitchen–dining and lounge areas, suggesting a relationship between a fire starting and the behaviour of victims (eg, acts of carelessness or omission and impairments and abilities).

- Victims are more likely to be male and aged between 0–15 years or aged over 60 years.

- Nearly two-thirds of fatal fires are in high deprivation areas (NZ Dep 7–10) reflecting the lower socio-economic status of victims.

- Smoke inhalation is a significant factor in the cause of death, incapacitating individuals and impairing their ability to escape.

- Pre-existing health conditions, such as physical disabilities, sensory impairments and psychological conditions, may impact on fire ignition and victims' abilities to escape.

- Nearly two-thirds of victims appeared to have insufficient time to escape the fire or were unable to escape because of their age or disabilities.

- High numbers of victims had been drinking alcohol before the fire, which impacted on fire causes (eg, carelessness, inattention, incapacity and acts of omission) and victims' ability to quickly escape the fire.

Looking specifically at older people, Chalmers' (2000) review found older people to be at increased risk of harm from fire (particularly those who live alone and with low socio-economic status) because they are at increased risk of being exposed to fire and have reduced ability to respond.

Older people are more likely to be involved in the cause of the fire from dangerous habitual behaviours (such as unattended cooking and placing combustible items too close to heating). Dangerous habitual behaviours are significant risk factors in home fires, however, older people may not perceive these behaviours as being problematic (Miller, 2005). Other factors that increase older people's risk of a fire starting are hoarding, 'making do' with old and unsafe appliances and electrical equipment, a reluctance to ask for help and not believing that one's practices are unsafe (Chalmers, 2000).

Once a fire has started, there is a reduced ability to respond to the fire. Older people are often less capable of escaping from a fire because of physical or mental impairments and limitations, particularly for those who live alone (Chalmers, 2000).

4.3   What fire safety interventions and campaigns are commonly used with older people?

Chalmers' (2000) report on improving the knowledge and practices of vulnerable groups suggests that older people are less likely to respond to media campaigns and are better reached through personalised, community and social-based channels, and through contact in settings where they are.

> *Effective fire prevention and fire response education works best if it is community-based, continuous and uses a range of strategies.* (Chalmers, 2000, p xii)

This is consistent with Roen and Lloyd's (2002) understanding of safety knowledge as being the result of complex social processes. The authors argue that safety knowledge is dynamic and provisional, situated in a system of ongoing practices, formed in, by and through social relations, and acquired by social participation (Roen & Lloyd, 2002). The authors reinforce the importance of a 'translation model' in fire safety promotion, whereby knowledge is created through interactions. Based on this model, effective promotion of home fire safety goes beyond the provision of information (eg, brochures) and altering the physical environment (eg, installing smoke alarms), as this assumes people can and will read the information provided and that

those who need information about safety will seek it out. A translation model of fire safety promotion uses a balance of human and material elements that are flexibly applied across situations.

The following approaches are used to deliver fire safety messages or interventions specifically for older people (Chalmers, 2000).

- **Home visits**: checking the safety risks in people's homes, for example, the home fire safety check.

- **Smoke detector programmes**: free supply and installation of smoke detectors, which also provides an opportunity for friendly and personalised education about fire safety risks in the home.

- **Linking fire safety education into social events**: identifying 'teachable moments' for a fire service to provide information to people meeting for social activities or events, or providing a safety tip in group newsletters.

- **Community-based approaches**: the programme is delivered and the participants recruited by community organisations, rather than by a fire service. The fire service supports the organisation to plan and deliver the information. Community-based approaches allow for fire safety educators to reflect the diversity of the community and cultures they are working with.

- **Linking fire safety to general safety**: linking messages and activities with broader safety concerns (eg, linking with Police to address fear of safety and worry about crime) to encourage a realistic view of safety and provide opportunities to build relationships where social isolation may be a safety issue.

- **Incorporating age-specific educational needs**: providing educational opportunities that are active and interactive (while keeping in mind potential sight and hearing limitations), self-directed and recognise that older people have a lifetime of experience to share.

- **Care institutions**: training and improving the knowledge of carers in care facilities.

4.4 What are the challenges for implementing fire safety initiatives with older people?

Despite relatively long-standing fire safety training initiatives, there are reports that "indicate a lack of fire safety knowledge, delayed threat recognition, and delayed evacuation among the general community, especially among younger and older persons" (Huseyin & Satyen, 2006).

For an intervention to reach its audience, sufficient awareness of and interest in fire safety issues and risks need to be generated. Specific challenges are involved in providing interventions (including social marketing interventions) that target older people to improve home fire safety. These include:

- **defending independence**: a negative response to any emphasis on their higher-risk status, reminder of age or suggestions they may be in need of help thereby impacting on their independence

- **attitude**: belief that they are unlikely to be at risk, that their homes are safe, they are very careful with heating and cooking, consequences would be minor and a fire would only happen because of an event they had no control over, such as electrical faults

- **perceived high cost**: high time and money cost to act on fire safety compared with the perceived low risk

- **lack of ownership of possessions**
- **habits and routines**: deeply engrained routines that resist behaviour change, and disruption of them may cause confusion and distress
- **distress**: triggers to behaviour change are often distressing and relate to loss of life, pets, possessions and independence.

4.5 What are the solutions and suggested strategies for implementing fire safety initiatives with older people?

Given that a trigger to behaviour change can be a distressing event, and changing behaviour may involve interrupting deep-set routines that older people may find distressing, care is required in developing appropriate interventions and approaches with older people. Bird and Tapp (2011) recommend using approaches that are less aggressive and direct.

Some strategies for addressing these challenges and motivating fire safe behaviours in older people include those listed below (Research International, 2010; Bird and Tapp, 2011; Miller and Davey, 2007; Diekman et al, 2010; International Council on Active Aging, 2011; Lis et al, 2008).

Making fire safety relevant

- Making it real: people must believe fire can happen to them, the impact of it and the consequences.
- Appealing to a need to create a safe home for others (partners, friends, grandchildren or pets). Or a gentler approach of implying that being unprotected may expose others in the street or building to fire risks (eg., neighbours), rather than focusing on individuals.
- Including fire safety within the general health and safety issues that older people are more concerned about.

Fitting in with life stages and life events

- Ensuring minimal disruptions to set routines, or target behaviour change soon after retirement to ensure the changes become part of an established routine.
- Coordinating interventions with life events: people's life cycles provide points where they re-evaluate attitudes and behaviours, these points are an opportunity to provide interventions (eg, relocation, birth of a grandchild or an anniversary).

Working with others who are interested in the safety of older people

- The collective involvement of health and social agencies, voluntary organisations that have an interest in reducing the risk of harm for older people, and integration of programmes that respond to health and wellbeing.

Community focus

- Use credible and influential third parties to get messages across, such as family members, general practitioners and local Fire Service members.
- Link in to local events.
- Use community networks to identify vulnerable older people.

- Use local news media to endorse, promote or advertise interventions.

Appropriate messaging that fits with older people

- Include older people in the development of safety and prevention programmes to ensure relevance and appropriateness.

- Recognise the heterogeneity and diversity of older people (including variation in socio-economic status, ethnicity, health and disabilities, education and lifestyle behaviours).

- Use a tone that is not patronising and that recognises the life experience of older people.

- Keep up-to-date information on any new risk factors.

- Provide constant varied messages that feature different fire scenarios, locations and causes, consequences and messages.

4.6   How is social media defined and used in social marketing?

Research is limited on the effectiveness of social media in a social marketing campaign for older people. This may reflect that this is a relatively new and rapidly developing area. This study is looking at social media and internet use more broadly with older people.

Social media can be used as a lead medium or in a supporting role to traditional media, depending on objectives and intended audience. It is different from traditional media in that it is not just about broadcasting, it is about dialogue, interaction and conversation.

> *Social media is a set of online technologies, sites and practices which are used to share opinions, experiences and perspectives. Fundamentally it is about conversation.* (Department of Internal Affairs, 2011, p 4)

> *Social media can create greater transparency, an interactive relationship with the public, a stronger sense of ownership of government policy and services, and thus a greater public trust in government.* (Department of Internal Affairs, 2011, p 4)

A recent report by the Controller and Auditor-General (2013) presented case studies from eight entities (public entities and a non-governmental organisation) on their use of social media. The report notes how and why each entity sought to use social media, what worked well and what the challenges were. From these case studies, the Controller and Auditor-General identified eight success factors to help public entities in considering how they can use social media to best advantage. The success factors identified are listed below.

1. **Leadership**: The organisation's leadership being open to exploring social media possibilities, creating a culture for innovation and providing a clear vision for how social media contributes to the organisation's objectives. Social media is beyond communications and is an element of business transformation.

2. **Strategy**: Clarity on the purpose of what the organisation is looking to achieve by using social media and identifying a clear target audience. The five stages of public participation still apply in this context: informing, consulting, involving, collaborating, empowering.

3. **Implementation**: Investment in people, skills and time is as important as the technology.

4. **Risk management**: Recognise, control and monitor the risks. In social media, there is increased importance for a fast response.

5. **Integration**: Think big, start small. Slowly and deliberately bring social media into day-to-day operations. Social media can work with other communication channels to amplify messages.

6. **Adaption**: The organisation needs to learn and develop as it goes.

7. **Measurement**: Identify what success looks like for the use of social media in the organisation and how this can be measured.

8. **Considered communication**: Make clear terms of engagement, and be prepared to manage negative comments.

Recommendations from a social marketing expert are that online and social media channels are best used in conjunction with traditional channels, and that use of multiple online and social media channels are needed (figure 2).

Figure 2:   The relationship of traditional media and the internet and social media in social marketing
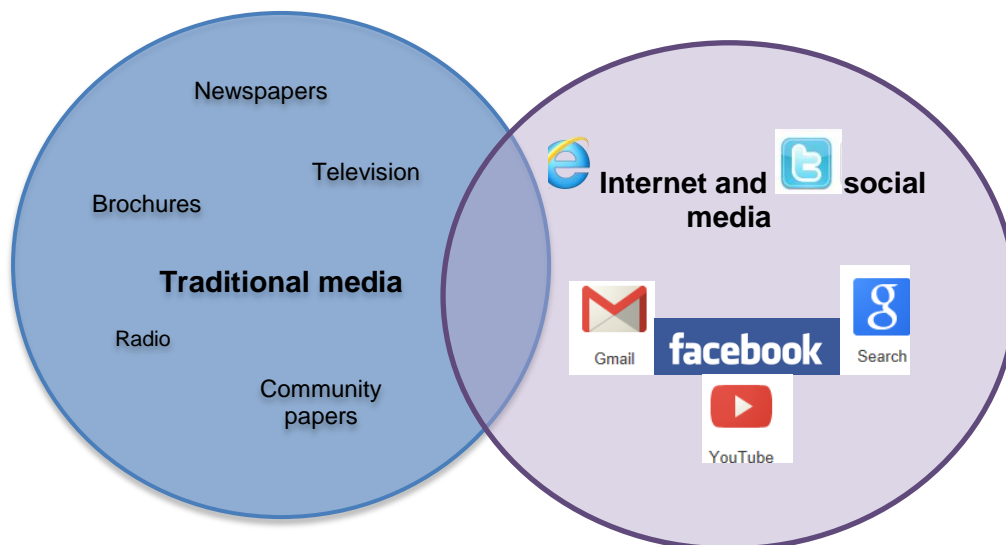
4.7   How are older people using social media and the internet?

According to the Statistics New Zealand household use of information and communication technology survey, use of social networking is rapidly increasing among older people (Statistics New Zealand, 2013). The proportion of people aged over 55 years using social networking[1] has doubled since 2009 (see figure 3).

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[1]   Social networking is not defined in the Statistics New Zealand report (Statistics New Zealand, 2013). The Oxford Dictionary defines social networking as "the use of dedicated websites and applications to interact with other users or to find people with similar interests to one's own" (Oxford Dictionaries online).

Figure 3:   Use of social networking by age group
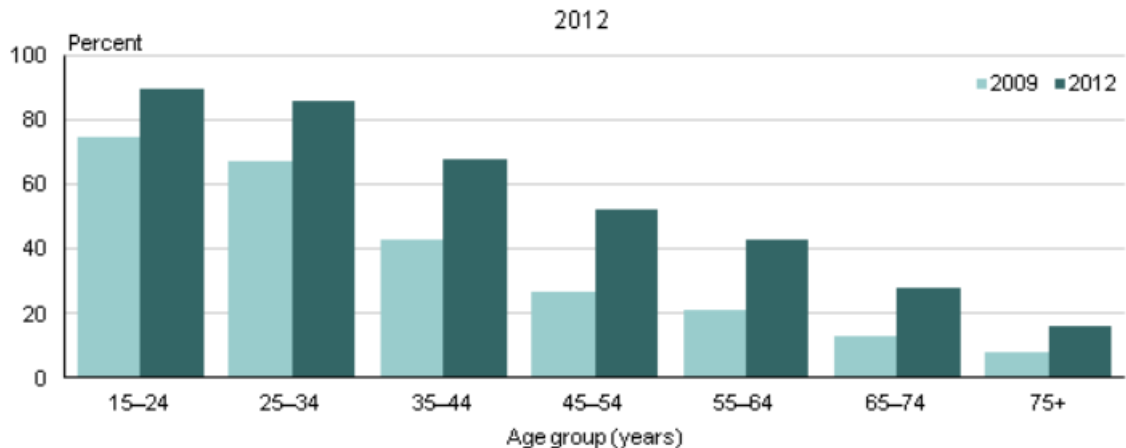
Source: Statistics New Zealand. (2013). *Household Use of Information and Communication Technology*: 2012. Wellington: Statistics New Zealand.

The Fire Service has an online and social media presence with a Fire Service website, Facebook page,[2] Twitter account and YouTube videos. Older people have not traditionally been a target audience of these forums. A recent study commissioned by the Fire Service quantified the use of social networking and/or digital media among at-risk groups and explored how effective these might be in conveying fire safety messages (UMR Research, 2011). Important findings in relation to older people included:

- Older people are significantly more likely than other age groups to believe they are fire safety conscious, which may impact on the propensity of this group to seek out and engage with the Fire Service online.

- Older people are less likely to access social networks or view digital media via smartphones than other groups.

- Older people are less likely to say they would engage with the Fire Service online or visit or join the Fire Service Facebook page, even for those who have a profile on Facebook. However, they are more likely to use digital media internet sites for information.

Based on the findings from this project, researchers recommended that targeted information for older people should be distributed via traditional means (ie, television and newspaper).

Changes in older people's internet use

Older people's use of the internet is changing and becoming more prevalent in the population. Findings from the Statistics New Zealand 2012 household use of information and communication technology survey show that 61% of people aged 65–74 years, and 32% of people aged 75 and over, had used the internet in the past 12 months (recent internet users) (figure 4 and 5). For both age groups, this is a marked increase in internet use since 2006 (39% for people aged 65–74 years and 17% for people aged 75 and over) (Statistics New Zealand, 2013).

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2   The page has 27,388 'likes' (as at 11 February 2013).

Figure 4:   Percentage of older people who are recent internet users (used the internet in the past 12 months)
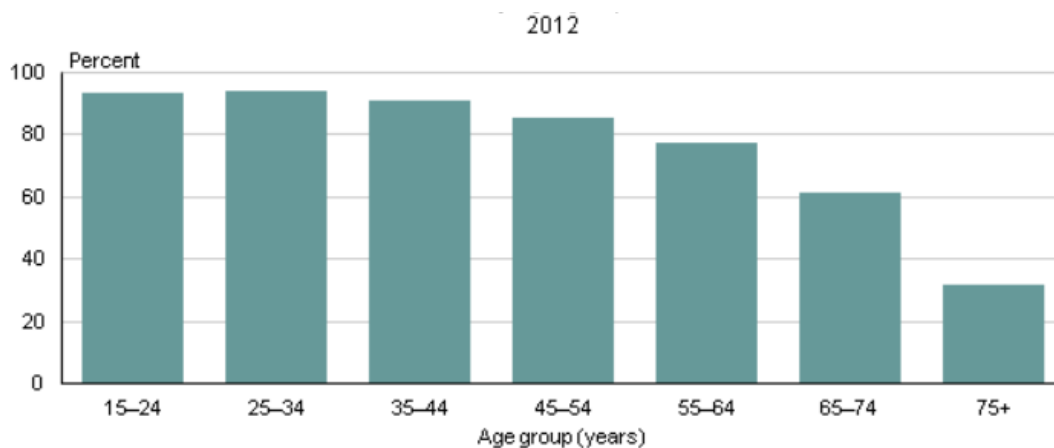
	2006 (%)	2009 (%)	2012 (%)
65–74 years	39	54	61
75 and over	17	26	32

Source: Statistics New Zealand. (2013). *Household Use of Information and Communication Technology*: 2012. Wellington: Statistics New Zealand.

Across all New Zealanders, the main reasons for not connecting to the internet are a lack of interest (a declining reason from 2009), concern over cost (an increasing reason) and a lack of confidence, knowledge or skills (an increasing reason) (Statistics New Zealand, 2013).

Looking at barriers specific to older people's internet use, Browne (2005 cited in Sum, 2009) identified three main barriers: personal computer technology did not exist throughout the majority of older people's lives, low income and education levels reduce accessibility, and physical and mental impairments reduce older people's ability to use the internet. This suggests that, while new generations of older people will come through who are familiar with using the internet, other barriers to older people's participation will remain.

Figure 5:   Percentage of recent internet users by age group

Source: Statistics New Zealand. (2013). *Household Use of Information and Communication Technology*: 2012. Wellington: Statistics New Zealand.

How people are using the internet, and what they are using it for is changing and becoming more mobile and personal. The most common method for accessing the internet has shifted from desktop (in 2009) to laptop or handheld computer (in 2012), and there is a marked increase in smartphone use for internet access (Statistics New Zealand, 2013).

For people aged 75 years and over, reading online is a preferred activity (see figure 6) (Statistics New Zealand, 2013). Sum's 2009 study of how Australian older people are using the internet identified the main uses as: communication (communication with friends and family living outside their local area), information ('surfing' for information on weather, health, jokes, books, movies and other leisure activities), commerce (ie, purchasing), entertainment (eg, local events) and finding new people.

Sum (2009) reported that those older people using the internet tended to be better educated and on higher incomes than non-users, but did not find a gender difference.
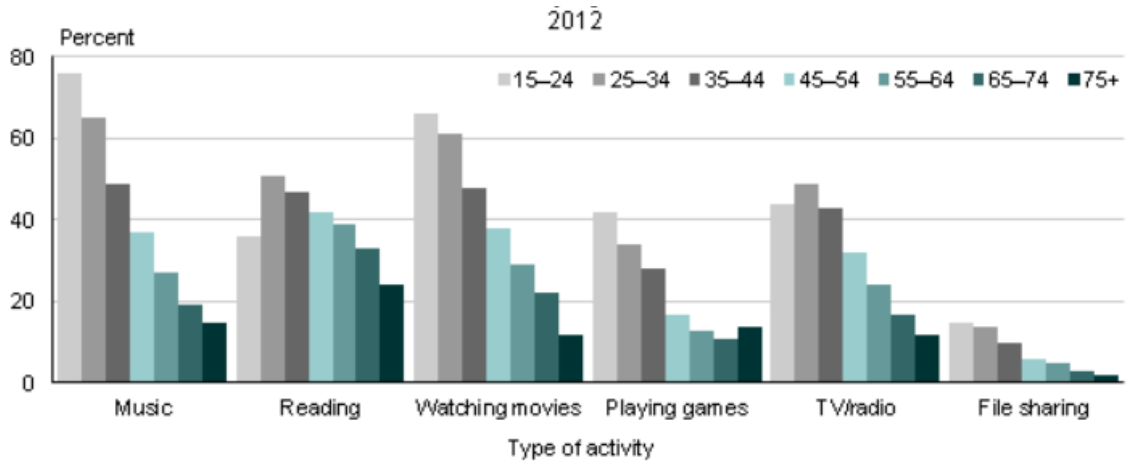
Figure 6:   Online leisure activities by age group

Source: Statistics New Zealand. (2013). *Household Use of Information and Communication Technology*: 2012. Wellington: Statistics New Zealand.

5. New Zealand Fire Service's response to older people

The Fire Service has an online presence with a website, Facebook page, YouTube videos and Twitter account. These forums are not currently targeted towards use by older people. The Fire Service has been active in the online space for children, providing games and interactive activities on its websites as well as providing a site specifically targeting children (Get Firewise http://www.firewisekids.co.nz/). No specific online tools are available for older people. Most activities targeting older people are delivered through regional Fire Risk Management Officers, and use community networks and hard copy material to deliver fire safety messages.

5.1 What initiatives are currently used with older people in New Zealand?

Identifying people at risk in the community and providing fire safety advice is the role of the Fire Risk Management Officers. The officers are regionally based and cover three core functions in their role:

- to provide advice regarding fire issues in buildings (the built environment)
- to provide advice regarding evacuation schemes in commercial and industrial buildings
- to identify and provide fire safety advice to people at risk in the community to keep them safe in their own homes, such as older people (though this is not the only at-risk group).

Fire Risk Management Officers in Christchurch, Wellington and Auckland identified key features of their role and discussed the challenges and successes in working with older people.

The goal of the Fire Risk Management Officers' work with older people is to reduce the number of fire incidence and increase older people's knowledge about fire dangers and their ability to respond and escape.

Fire safety activities with older people

Fire safety activities carried out by Fire Risk Management Officers vary by region. Activities in Christchurch, Wellington and Auckland may include some or all of the following:

- Presenting fire safety information at lunches and events organised by other organisations (such as PROBUS, Age Concern, church groups and so on), using props, audio visual materials, and brochures and booklets to deliver messages (figure 7).

Figure 7:   Fire safety booklet for older people

- Holding home and personal safety workshops with other safety-focused organisations, such as New Zealand Police and civil defence (figure 8).

- Being present and providing brochures at community events, such as events for the International Day of Older Persons.

- Conducting Home Fire Safety Checks in older people's homes, which include the provision of fire safety education, checking fire risks or hazards and, if required, installing smoke alarms.

- Being part of organisation networks that have a shared interest in the safety of older people to develop and maintain relationships with relevant organisations, and to ensure service providers have a local Fire Service contact person and understand what the Fire Risk Management Officers can do in the community.

- Providing education to service delivery workers from other organisations who go into older people's homes, so they are able to identify and address fire safety issues when in people's homes, or raise concerns with the Fire Service as appropriate.

Figure 8:   Workbook for the Christchurch home and personal safety workshops
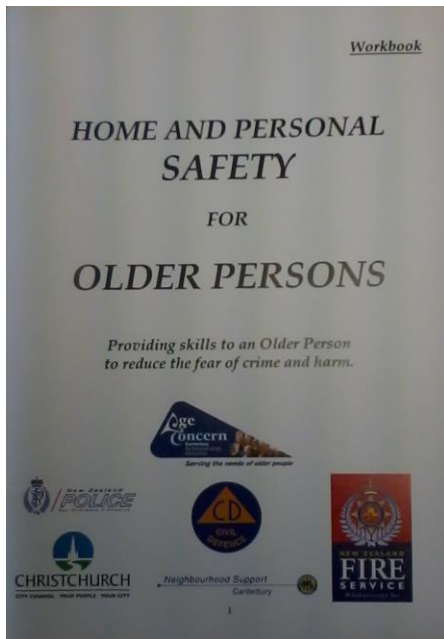
What works well in delivering fire safety information to older people?

Central to the role of the Fire Risk Management Officers are the partnerships and working relationships with other organisations that have older people as a focus of their work (or at least within their scope of work), such as Age Concern, or that have personal and home safety as the focus of their work (eg, New Zealand Police and civil defence).

> *The thing that maintains this relationship is constant connection, and also recognition of value and need. We've both recognised the mutual value in this relationship and the real need of maintaining it.* (Fire Risk Management Officer)

The most important feature of the fire safety education for older people is the relationships and rapport the officer has with the participants. Having a physical presence is important for building a relationship. Officers also found the use of props helpful for demonstrating messages rather than lecturing.

What are the challenges in delivering fire safety information to older people?

Challenges for the Fire Risk Management Officers are being able to get safety messages to all the older people in their community, especially those not at organised events. People living alone, with low incomes, and migrant groups with limited or no English are considered particularly challenging as they may be more likely to have old and unsafe appliances, less likely to attend the organised events.

Where information sessions are held, Fire Risk Management Officers give participants the opportunity to have a Home Fire Safety Check. The extent to which this opportunity is taken up by participants varies. Fire Risk Management Officers found that the main challenges in getting into older people's homes to do a check are older people's views that their homes are safe, and not wanting to be a bother or inconvenience.

How relevant is the internet and social media in this space?

In general, the Fire Risk Management Officers do not use the online Fire Service tools (website, Facebook, Twitter or YouTube clips) with this audience. The sites are not thought to be designed for older people to use, and there is a view that older people may not want to use online tools, preferring a personal interaction.

By in large, the officers believe there is a need for continual innovation to access more older people at risk and increase fire safety knowledge. They saw limited potential for the use of online tools with this group at the present time, but consider this to be an area worth investigating and for future planning. The importance of personalised relationships with older people would remain, and the use of online tools will need to take this into account.

> *It's the physical connection with someone and I generally feel that older people don't like being disconnected, being the third person. If they don't feel connected, they won't embrace it and being at arm's length by virtue of technology does not give them that connection. Some older people are great adopters, they love it and they want all the tools. But they are, I believe, the vast minority.* (Fire Risk Management Officer)

> *I think if you're going to move that way, the imagery is vitally important. Showing these people a burnt out power board and melted smoke alarm.* (Fire Risk Management Officer)

6. Older people's views of home safety and their use of the internet and social media

In the group discussions with older people, we discussed general safety activities and behaviours they have undertaken in their homes to improve their safety and that of the people they live with. We also asked specifically about fire safety behaviours. The message was consistent across all four participant groups that fire safety is common sense and it is not a primary safety concern. The groups also discussed how they are using the internet, whether they use social media, how it is used and for what purpose.

6.1 Where does fire safety fit among home safety?

Fire safety is not a primary safety concern. Primary safety concerns identified across all four groups were slips and falls (eg, removing mats, using non-slip bath mats, putting up hand rails and so on), security from burglaries (eg, deadbolts on doors and windows), and, for the Christchurch group, earthquake safety was also top of mind.

> *I think home invasion, burglary is the highest thing on the list. These things are out of our control. There's nothing really you can do except for a few precautions. Fire risk is something you can be really careful about.* (Male group)

Having working smoke alarms installed was always the first and most commonly identified fire safety behaviour that participants undertook. All but two participants had at least one working smoke alarm in their home, and many participants had multiple alarms. For some people, fire extinguishers and fire blankets were also included.

Older people did not consider themselves at risk from home fires. The risk was perceived to be with people who are poor, people who smoke and people with dementia or like conditions.

> *I guess the big risk is that when people get older and get forgetful or get Alzheimer's or dementia. People that are cooking something and walkaway and things like that.* (Male group)

Some safety behaviours were more prominent in those in the middle to older end of the age group, due to an awareness of potential decreasing physical ability and mobility, and increasing forgetfulness as they continue to age (see figure 9). For example, implementing preventative measures for slips and falls, establishing routines for checking that heating devices are turned off and, where possible (ie, financially and with home ownership) a preference for heat pumps as a safe heating alternative were common in the older groups.

Figure 9:   Perceptions of home safety by age

Profile of participants	**65 years** **Golden years**	➤	**85+ years** **Increasing dependency**
Safety	• Confident in their home safety • Concern (current or past) for the safety of their older parents or older people they know • Wanting statistics and facts on who is at risk and why	• Checklists • Main concern is slips, falls and security from intrusion • Checking heating • Concern about getting forgetful	• Use non-slip mats and rails • Main concerns are slips, falls and security from intrusion • Receive support from others for home maintenance and safety

6.2   What fire safety behaviours are older people undertaking?

Fires were largely thought to be controllable and fire safety was common sense.
Participants considered themselves to be careful and identified behaviours and activities they commonly did (or did not do) to demonstrate their safety consciousness including not drying clothes close to heaters, not overloading power sockets and multi-plugs, and consistently checking heating devices are turned off before going to bed or leaving the house.

> *I'd go round and check the windows and the stove and make sure the cats out when I go to bed – sort of a ritual.* (Male group)

> *This is all basically things we've known for years and years and years and it's all common sense.* (Male group)

> *There might be times where things happen that are out of our control, especially electrical things that we can't control, electrical wiring.* (Women's group)

There were gaps in older people's fire safety behaviours. There were some fire safety behaviours that participants generally did not comply with, these were having an established escape plan and doing checks of appliances. With heightened concern about burglaries, some participants had tried to improve their safety from intrusion by putting deadbolts on windows, thereby restricting their exit points in the event of a home fire. Some participants also revealed that, despite reporting they are safety conscious, they had had small kitchen fires, or near fires, from unattended cooking. Two participants did not have a working smoke alarms installed.

Those living in apartment buildings had a greater awareness of fire safety. The impact that a fire may have on their neighbours was emphasised with these people. This was driven from regular building checks and safety reminders provided to all those living in the apartment block and experiences of call outs from the Fire Service for 'false alarms' from neighbours burning toast.

> *In our apartment, we're on the fourth floor and you look down – it's a long way down, you can't get out any windows so that makes us very fire conscious. You consciously check your fire exits – you have too. You're also very aware of the Bodycorp*

regulations and things – the sprinklers going off and things like that. You check everything when you go to bed – you're not careless. (Male group)

6.3   Overview of older people's internet and social media use

The group participants were recruited for being older people who are high internet users. However, even among this group, there is minimal use of social media as a channel for communication or conversation.

There appears to be a difference in internet and social media use by age (figure 10) but not by gender as the male and female groups seem to be using the internet in a similar way. Those near 65 years of age tend to be more confident to explore new avenues, use multiple devices and do multiple functions online. Those in the middle group have reduced internet use, with a focus on hobbies, games and email. The older group tends to have the most limited use, with email being the primary function for connections and limited confidence and interest in exploring new online functions.

Figure 10:   Changes in technology use by age

Profile of participants	65 years Golden years		85+ years Increasing dependency
Safety	• Confident in their home safety	• Use of checklists and growing concern of slips, falls and security from intrusion	• Main concern is slips, falls and security from intrusion
Internet use	• Computer use to support hobbies, travel and interest groups • YouTube tutorials • Social media to connect to family (Skype) • LinkedIn for professional groups and connections • Multiple devices • Confident to try out new things (eg, trying Facebook and Twitter) • Banking • Information seeking	• Computer use to support hobbies, eg, ancestry websites, YouTube tutorials • Skype • Banking • Games, crosswords and puzzles • Information seeking, eg, health questions into Google • Declining confidence to explore and test • Email • Google Earth	• Limited use • Email

Three categories seem to prevail for describing the participants' use of the internet and social media. Most common were the internet users who only use internet functions and no social media. The next most common were those who used some social media, but in a limited capacity and passive non-participatory way for receiving information and not interacting or having conversations. The exception to this is the use of Skype or Facetime, which are used for

direct conversations with family which is used by people in this group (see below). The third group was uncommon and involved active conversational use of social media. The groups are not exclusive and tend to build from left to right, though movement can flow both ways (figure 11).

Figure 11: Participant's internet and social media use
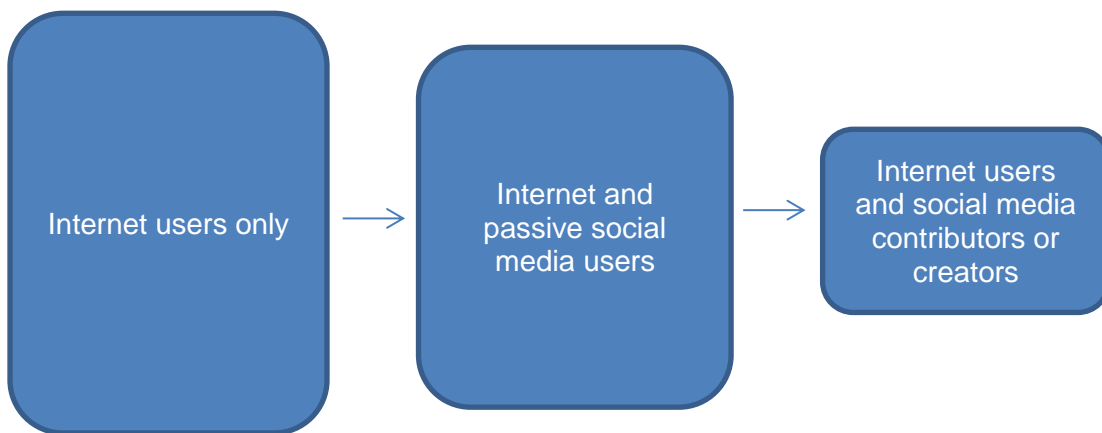
6.4   How are older people using the internet?

Older people's internet use is frequent, however, it tends to be dipped into for a specific task. It is not a continual and very present part of their day. Their use is transactional and purposeful, and it is closely linked to what is happening in their lives, for example, events, information, interests and hobbies, and family contact.

Main functions the internet is used for

Examples of main uses of the internet are:

- **Information**: Putting questions into Google to find an answer or gain further information on a topic of interest, or general searching to find something out, for example, health and medication queries, looking things up on Wikipedia, Google Earth and so on.

- **Events and entertainment**: Finding out what events are on, for example, planning for holidays and travel, events that are happening locally, and movie times.

- **Transactions and purchases**: For example, purchasing travel tickets (flights and accommodation), purchasing books, online banking, Trade Me.

- **Hobbies and interest groups**: Using websites and YouTube to continue with hobbies, crafts and interests, for example, YouTube tutorials on craft techniques, ancestor searching websites, watching music videos on YouTube and so on. Email and some use of Facebook to keep up to date with clubs and groups.

- **Connecting to family**: Using Skype or Facetime and Facebook to connect to younger family members (children and grandchildren) who don't live in the area, to keep in touch. Email is also used to connect and communicate with family.

- **Puzzles and games**

- **Television streaming**: For example, TV On Demand and sports events for those without Sky TV.

> *In the old days you might have used an encyclopaedia but nowadays the internet is so up to date and the research facility is so good. A lot of people our age use it for medical advice also – you don't rely on one source, but there's medical research places or whatever that you can trust.* (Male group)

> *Everything you do these days you have to look up on the internet, I mean the other day I went to see that film about Steve Jobs but then there was a lot presented that I wanted to look at and things like that – everything we do we seem to look it up.* (Male group)

> *You get better deals online often. Before we would go to travel agents. It's more convenient, you can choose when you go and you get all the options. You know what you're getting – compare prices, and look around.* (Kapiti, women's group)

> *People send us funny things on YouTube and one thing leads to another. We watch music as well. Go back to our teenage years and listen to the music that was popular then.* (Women's group)

> *I use an iPad for when I am traveling for portability. At home I enjoy using a desktop for photos and printing. It has a bigger screen and it's easier to work on.* (Male group)

Older people also have reasonable use of apps. Most apps used are those that are free and related to interests and hobbies or events, for example, BBC, weather, movies, Yahoo, games and music (eg, Shazam).

Use of devices to access the internet

Use of devices is varied, with multiple devices used, including desktops, laptops, tablets, iPads, iPhones and smartphones. Use of the internet on smartphones seems to be limited, primarily because of the screen size but also because of the lack of need to look things up on the go unless travelling. Laptops and desktops were the most commonly used device for internet use.

Drivers for initiating personal internet use

Use of the internet does not seem to be related to participants' internet use when they were in employment. Main drivers for initiating personal internet use are:

- **retirement** and joining new groups or expanding interests and hobbies
- wanting to **keep up**, not to be left behind or miss out
- **incentives** to change, for example, online banking was encouraged by having accounts with better interest rates online
- **ability to individualise** to meet specific needs, and to do so at a time and place that is most convenient
- **family connections** when people live at a physical distance.

6.5   How are older people using social media?

While the participants in these group discussions used social media, the great majority of those who were using it most were using it in a passive way to receive information. It was uncommon for participants to be engaging in conversation, producing content, uploading information or photos, updating or setting up their own profiles.

Few social media sites were identified as being used. Those identified were:

- Trade Me: to buy and sell goods
- YouTube: to watch videos that relate to interests and hobbies (eg, tutorials for craft techniques or watching music videos) but largely not to upload one's own video footage
- Skype or Facetime: to connect with younger family members living at a physical distance
- Facebook: to connect and see photos of family members living at a physical distance, but predominantly to observe not to post.
- LinkedIn: for business connections.

What is clear from the group discussions is while these older people are dipping into social media they are not commonly using it in a social way. That is, it is largely not used to engage, discuss and share. Each of the social media places identified had distinct purposes they were used for (eg., to observe and keep up to date). Where conversations occur it is directly with family using Skype or Facetime, not a conversation in a broader online community.

Overall, social media was not considered a useful tool for keeping in touch or having conversations with peers and friends, with the exception of using LinkedIn for business contacts for those still in part-time employment. The connection to family is largely with children and grandchildren who live distantly and who encourage their older people to connect in this manner.

Participants were aware of campaigns and advertisements that encourage people to go to Facebook or follow on Twitter. It was uncommon for participants to do this, even on a topic of interest, as the purpose and relevance to them was not clear, and there is a perception that the content would not be useful.

Reasons for not using social media

Some participants have not used any social media and others have tried but not continued using it. For these participants, the main barriers to use are:

- lack of relevance
- a perception that the quality of the content is poor
- lack of understanding of how and for what purpose various social media functions are used
- a perception that is it for young people
- sites are not considered user friendly for older people
- having to sift through a large quantity of information to identify the information sought after
- fear of identity theft and theft of personal photos and images
- lack of interest in some Facebook content posted by family members.

I never use Facebook at all. The wife of my nephew puts things on every day on her infants. I am too busy. (Male group)

It [Facebook] just comes up on my email if my nephew's partner updates photos or something and then I can go on but otherwise I don't – I don't respond, I just look and maybe I might email them later to say that I've seen them or something. (Male group)

We don't like it – we don't like all things information people put on it. I might not understand it, it seems to be more of a young person thing and you have to be online all the time, responding immediately and things. I don't want to spend all that time on the computer. (Male group)

Facebook isn't very senior friendly, it's definitely set up for the younger people. I don't really know how to put photos up. (Women's group)

Social media is not very appealing. It's full of rubbish and it's dangerous. There are too many privacy lapses. People's photos get stolen and used for other things. (Women's group)

I never use Twitter. I'm not a Twitter person. It's a time waster. It's for gossip. You can be so deluged with stuff and it can be a time waster. (Male group)

Interactive social media use

Few participants were involved in interactive use of social media. Those who were tended to be at the younger end of the continuum, may still be in part-time employment, involved in travel and were using social media as a continuation from using it before retirement.

The main difference in the use of social media in this manner was that the primary function was not only to see and keep up to date with what others were doing, but for others to see what they were doing. Those in the non-active passive social media use did not seem interested in posting information about themselves or sharing their views.

7. Conclusions and future considerations

7.1 Conclusion

The Fire Service focus on older people is important given:

- older people are at increased risk of harm from fire (31% of fatalities between 2008 and 2013 were with people aged 60 years and over) (NZ Fire Service, unpublished)

- New Zealand's population is aging (projections show that one-in-four people will be aged 65 years and over from the late 2030s) (Statistics New Zealand, 2006)

- there are risk factors that are particularly pertinent to older people (such as dangerous habitual behaviours and health conditions, physical disability and sensory impairments) that may impact on fire ignition and ability to escape (Miller, 2005; Chalmers, 2000).

Older people however, may not view themselves as being at risk and may not consider their habitual behaviours as problematic. Older people have greater concerns relating to other home safety issues, such as burglaries or earthquakes, which are more relevant, more likely to happen, and not in their control to prevent.

The main question for the Fire Service is how to increase the relevancy of fire safety with older people, and whether social media or other online tools can be useful to achieve this and reduce the incidence of fire.

Social media and the online environment in general, is an area of opportunity for the Fire Service. There is evidence that increasing proportions of older people are using the internet and social media, and there will be a new generation of older people moving into retirement who will have used social media in their working and personal lives.

This research shows that at this time, while there is some use of social media among older people its use is limited (ie, it is not commonly used for dialogue, interaction or conversation) and there are some strong negative views towards social media. Therefore, while there is value and utility in developing an online space targeted towards older people as part of a wider social marketing strategy, the use of social media is not an important focus at this stage.

For these reasons, social media and online tools need to be considered as future tools that are part of a wider social marketing strategy focused on older people. Social marketing experts also note that online channels, including social media, are rapidly changing and the future use in this space needs to be considered in shorter terms of two years.

Considerations for a fire safety social marketing strategy for older people

Using multiple channels (traditional and online) for a fire safety social marketing initiative is important in this context where social media use is low and multiple channels are needed to create awareness of the issue for older people. A broad social marketing strategy for the Fire Service may include:

- traditional media (television, radio, newspaper, brochures and booklets, bookmarks etc.)

- internet

- social media

- community work by the Fire Risk Management Officers (linking with community organisations, community networks and events, community papers).

Setting a clear objective: Social marketing experts suggest a 'think big, start small' approach, where the purpose and intent is clear and operationalised in small, achievable steps. Objectives may include: to reduce the incidence of fire in homes of older people, increase older people's awareness of the risks, and increase their fire safety behaviour.

Evaluation to assess effectiveness: To know if the strategy is working as intended, the Fire Service need to identify what success will look like and how this can be measured. Measures for social media tools in this field may be difficult because commonly used measures, such as the number of 'likes', may not be linked to any increase in knowledge or safety behaviour of the target group.

Segmentation of the target audience: Older people are not a homogeneous group. This research has shown differences by age in the profile of older people, their home safety concerns and their internet use. Defining who within the population of older people, is the target of what intervention will be important for determining the channel and message. Motivators and barriers are likely to be different for different sub-groups. Other demographic differences may include income or socio-economic level and whether people live alone.

Identify trigger points for interventions: Coordinating interventions with life events or activities where people re-evaluate attitudes and behaviours. Findings from this research suggest coordinating with the following events and activities:

- retirement (to ensure behaviours become part of an establishing routine)

- looking after grandchildren (linking into the broader safety concerns involved in childcare)

- linking into concerns about personal safety (eg, slips and falls) and other kinds of home safety (eg, earthquakes and burglaries)

- moving to a smaller house (eg, retirement village or unit).

Increasing relevancy using on-line tools: Using online tools to increase the relevancy of fire safety with older people, the Fire Service may provide a tailored space for older people on the Fire Service website. A further option is to reflect the approach used in the community by the Fire Risk Management Officers, by linking into other organisations that share the same target audience or issue. This can be replicated online by having a Fire Service presence on the websites of organisations older people belong to such as Age Concern, Probus and SeniorNet.

Compelling messages: To increase the relevancy of fire safety issues, messages need to clearly demonstrate the risk for older people. To make messages compelling, findings from this research suggest the following techniques:

- use statistics and facts to demonstrate who is at risk and what the risk factors are

- show images and pictures to demonstrate the impact of fire

- use stories and real-life experiences

- connect with local community incidents or events.

Providing updates: for some older people electronic prompts or updates through an app or calendar reminder may help to give the information in bite-size pieces and keep the issue current (eg., an update on things to check in the home, latest tip, or 'did you know…').

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Appendix A: Research approach details

Literature review scope and approach

The literature review included appraisal of research, literature reviews, academic opinion pieces, meta-analyses, programme documents and strategic documents.

Searches were conducted on academic databases, New Zealand and international government department websites, New Zealand and international fire service websites, World Health Organization, NICE, Cochrane Library, Google, Google Scholar and university websites. The bibliographies of some articles were explored for further references.

Searches terms included: evaluation/ effectiveness/ review/ best practice, older people/ older adults/ elderly, safety campaign, safety education, health education, health promotion, fire safety, fire safety campaigns, safety campaigns, health campaigns, social marketing, media campaigns, digital campaigns, digital media, social media, media communication, internet use.

The search found very little information on using social media in social marketing approaches to older people. Looking at fire safety information, there are several examples of existing fire and home safety programmes designed specifically for older people, or information specially catering for this target audience. However, there is little evidence on the effectiveness of these programmes. In terms of digital media, there is information on older people's use of digital technology and how to bridge the gap of digital access for older people. However, it was difficult to find any evaluations of the effectiveness of existing digital approaches.

Recruitment process for qualitative interviews with Fire Risk Management Officers

The Fire Service headquarters provided the names and contact details for the Fire Risk Management Officers in Christchurch, Wellington and Counties Manukau. Litmus approached each officer by email, explaining the purpose of the research and requesting their participation in an interview.

Interviews were held face-to-face or by telephone. Standard informed consent processes were followed. Participants were informed that, because of the recruitment process, the Fire Service was aware of their participation in the research. They were also informed that, because of the small number of Fire Risk Management Officers, any comments they made may be personally identifiable to those in the Fire Service.

Recruitment process for focus groups with older people

SeniorNet coordinators in Christchurch, Wellington, Kapiti Coast and Counties Manukau provided lists of members in their areas. Lists of men were provided for Wellington and Counties Manukau, and lists of women were provided for Kapiti Coast and Christchurch.

Litmus telephoned the people on the list to ask if they were available and interested in taking part in a group discussion. Potential participants were not told the group discussion was for the Fire Service. They were told the group discussion was about their internet and social media use and how this had changed over time. This was done to ensure people were not primed with fire safety information before attending as we wanted to find out from the group the priority placed on fire safety within home safety more generally, and their fire safety activities and behaviours.

Screening questions were used to recruit people who were moderate to moderate to high internet users and who used the internet for a range of activities (Figure 11).

The list of SeniorNet members was used until six or seven people were recruited for each area. In the Wellington group, there were insufficient people on the list who were available and who met the recruitment criteria. Litmus worked with recruitment company Consumer Link to get the final two participants for this group discussion.

Group discussions were held at conference rooms or qualitative research rooms. Standard informed consent processes were followed. Participants received $70 cash as a thank you for their time and contribution.

Figure A1: Recruitment sheets

Gender	Frequency of internet use	Email	Transactions	Skype/ Facetime	Facebook	Apps	Twitter	Downloading	Streaming	Other social media
Kapiti										
F	At least once a day	Y	Y	Y	Y	N	N	N	Y	Games
F	At least once a day	Y	Y	N	Y	N	N	N	Y	
F	At least once a day	Y	Y	Y	Y	N	N	N	Y	Trade Me
F	At least once a day	Y	Y	Y	Y	N	N	N	N	
F	At least once a day	Y	Y	N	N	N	N	N	N	YouTube
F	Once or twice a week	Y	Y	N	N	N	N	N	N	
F	At least once a day	Y	Y	Y	Y	Y	Y	Y	Y	Photo cloud, Google plus
Christchurch										
F	At least once a day	Y	Y	Y	Y	Y	N	Y	Y	YouTube, Trade Me, viber
F	At least once a day	Y	Y	Y	N	N	N	N	N	Trade Me, games
F	At least once a day	Y	Y	Y	N	N	N	N	Y	
F	At least once a day	Y	Y	Y	N	N	N	Y	N	YouTube
F	At least once a day	Y	N	Y	Y	N	N	N	Y	YouTube
F	At least once a day	Y	Y	Y	Y	Y	Y	Y	N	YouTube
Wellington										
M	At least once a day	Y	Y	Y	Y	Y	N	Y	Y	Blogs, LinkedIn, uploads
M	At least once a day	Y	Y	Y	N	N	N	N	Y	
M	Once or twice a week	Y	Y	Y	Y	N	N	N	N	
M	At least once a day	Y	Y	Y	Y	Y	N	N	N	
M	At least once a day	Y	Y	N	Y	Y	N	N	Y	
M	At least once a day	Y	Y	Y	Y	Y	N	N	N	

Gender	Frequency of internet use	Email	Transactions	Skype/ Facetime	Facebook	Apps	Twitter	Downloading	Streaming	Other social media
Counties Manukau										
M	At least once a day	Y	Y	Y	N	N	N	N	Y	
M	At least once a day	Y	Y	N	Y	N	N	N	Y	
M	At least once a day	y	y	y	y	N	N	N	Y	Trade Me
M	At least once a day	Y	Y	Y	N	N	N	N	Y	
M	At least once a day	Y	Y	Y	N	N	N	N	N	
M	At least once a day	Y	Y	Y	N	Y	N	N	Y	

Appendix B: Interview guides and consent forms

Fire safety social marketing approaches for older people using digital channels

INTERVIEW GUIDE for Fire Risk Management Officer staff

20 September 2013

This interview guide is indicative of the relevant subject matter to be covered. It is designed to allow freedom of any additional relevant topics, which may arise during the discussion

> **Overall aim:** To explore successful social marketing initiaitves for older adults, using digital channels, for the Fire Service.

1. Introductions

- Purpose of interview – to learn about work Fire Risk Management Officers are undertaking with older people
- Informed consent
- Current/previous roles at Fire Service

2. Community work/initiatives

Please tell me about the work you are currently involved with to target older people in the community …

- What is the background/how do initiatives start?
- What are the aims?
- What are the triggers and barriers to implementing these kinds of initiatives?
- What is working well?
- What are the challenges? What are the risks?
- What outcomes have been achieved? What differences are you seeing?
- How do you measure success? What are the critical success factors for this kind of work?

3. Insights about the target audience

Based on your experience of working with older people, do you have any advice for a social marketing approach that aims to target older people's knowledge and behaviours regarding fire safety?

- What are the key risks for this audience?
- What are barriers to this audience undertaking appropriate fire safety measures? How can these barriers be overcome?
- What are the key messages that need to be delivered, to foster and sustain changes in behaviour?

- How, when and where should those messages be delivered?
- What approaches work best and why?
- What practical support and mechanisms could/should be offered?

4. Use of digital technology

New Zealand Fire Service is interested in 'future proofing' its social marketing approach to older people. We know that there is an increased use of the internet and social media. Based on your experience:

- How can digital technology/online tools be usefully incorporated into your activities/initiatives with older people in your community?
- How can we best use digital technology or online tools to:
    - Provide information to older people on fire safety?
    - Change behaviour in older people?

Close with thanks

**Research exploring social marketing approaches for improving
safety behaviour in older people**

Stakeholder Interviews – Consent Form

I (insert name) …………………………………………………………………………………….

of (insert organisation)..………………………………………….............……………………

agree to participate in the research exploring social marketing approaches for improving safety behaviour in older people. I understand that:

- My participation in the project is voluntary and I can withdraw at any time.
- If I withdraw, I can request that any information collected from me be returned or destroyed.
- I can choose not to answer any questions I do not wish to answer (without saying why).
- I can request any information collected from me be withdrawn at any time up until the reporting stage.
- I am aware that the New Zealand Fire Service nominated my participation in this research, and they are aware of my involvement.
- Information in the report will not be attributed to me. However, due to my unique role and small number of people being interviewed, I understand that I may be identifiable.
- The interview, with my permission, will be taped and may be transcribed.
- I have the right to request a copy of the audio or written notes of my discussion.
- Digital recordings, notes and summaries will be securely stored at Litmus and will not identify me. They will be kept for two years and then securely destroyed.

I have read the information sheet and this consent form, and have been given the opportunity to ask questions and have them answered. I give my consent to participate in this evaluation.

Participant's signature: _____

Date: _____

Fire safety social marketing approaches for older people using digital channels

Focus group DISCUSSION GUIDE – 20 September 2013

This interview guide is indicative of the relevant subject matter to be covered. It is designed to allow freedom of any additional relevant topics, which may arise during the discussion.

Overall aim: To explore successful social marketing initiatives for older adults, using digital channels, for the Fire Service.

Research objectives:

- Identify best practice social marketing approaches for older people
- Determine older people's preferred digital communication channels for social marketing messages
- Develop a set of key methods and lessons for use by the Fire Service in future social marketing campaigns aimed at older people.

Introductions/warm up

- Thanks for coming, 2 hours.
- Purpose to understand your use of the internet and social media and how this has changed over time, and to talk about home safety.
- Introductions – name, living situation, background and work experience.

1. Use of the internet and how it has changed over time (40mins)
Stickies used to note key uses for group in the current, past and future

Brainstorm / warm-up exercise: Let's start by thinking about how we are using the internet now. Please share how we use the internet and social media in our lives.

- What are we using the internet for? What activities are we using the internet for?
- What devices or tools do we access the internet on?
    - Probe for devices (eg, laptop/computer for personal/home use or work, smart phone, tablet, etc.)
- How do we use social media?
    - Which social media sites do we mostly use?
    - What do we use them for?
    - Do we have a profile set up? What led us to do this?
- What things have we decided not to do on the internet? Social media?
- How do our peers use the internet and social media? How is that different to us?

Now we'd like to explore how our internet and social media has changed over time.
Over the past 10 years or so, how has our use of the internet and social media changed?

- How come our internet and social media use changed?
    - What was it that started these changes?
    - Probe for development of uses (eg, browsing, transactions/purchasing, email, Facebook, Skype, streaming/downloading, social media, uploading, seeking information)
    - Probe for changes in information sources that were previously hard copy (eg, newspapers)

Now let's look to the future and reflect on how our internet and social media may continue to change.
Reflecting on how we use the internet and social media and what we see around us, how do we feel our use may change or evolve again?

- Who/what are the key influencers of this change?

- What may make this challenging or get in the way of these changes?

2. Safety in the home (40mins)

The second part of today's discussion is to explore safety messages in the home. Let's start by thinking about all the activities and behaviours we do in our homes to make them a safe place to live.

<u>*Paired brainstorm exercise*</u>*: Working with your neighbour, jot down all the safety activities and behaviours that you have done to improve the safety of your home for you and any people you live with. Then jot down those things you wanted to do to improve the safety of your home but for whatever reason did not do.*

Please share the things you have done to keep your home safe.
What were things you wanted to do to improve the safety of your home but for whatever reason did not do?

- Where do fire safety activities and behaviours fit on these lists?
    - How come we did these fire safety activities and behaviours? What prompted us?
    - How come we didn't do these fire safety activities and behaviours? What stopped us?

- As a group, let's list all the things we know that we can do to prevent fires in our homes.

If not on list, go through a list of activities and behaviours recommended by the Fire Service. (checklist 1)

- How do we know about these ways to prevent fires in our homes?
    - Where do we get information about fire safety?

- Which ones do we do? Not do?

- For what reasons did we decide to undertake these ones?
    - What made it something you could do?
    - Who did these things in your home? (Explore the use of social supports, who they are, the relationship with them, their role in home safety activities and information.)

- For what reasons did we decide not to undertake these ones?
    - Where did we find out about it?
    - What made it difficult to do?

- Overall, how worried are we about the risk of a fire in your home? Why is that?
    - What do we feel about the impacts and consequences of fires?

Explore impact of: knowledge, ability, cost, time, perceived risk, other

Explore impact of: living in rented accommodation, living with extended family, ability to make decisions within the family

3. Using the internet for fire safety messages (40 mins)

More and more organisations are looking to the internet to get information to communities about safety in the home. The New Zealand Fire Service is interested in exploring this with us.

Older people are at increased risk of harm from home fires, and older people are increasingly using internet and social media.

We've talked today about how you use the internet and how this has changed over time. We've also talked about home safety. Now we'd like to focus the last discussion on brainstorming ideas on how the New Zealand Fire Service can best use the internet and social media to communicate with people like you about fire safety risks and home safety.

Small groups exercise: Let's get into two groups of three, and have some fun being creative. Imagine we are in charge of trying to reduce harm from house fires for older people, and wanted to see how we could use the internet and social media to achieve this.

Working together, consider and discuss how the internet and social media could be used to reduce harm from house fires for older people. To do this, we can have a look at the New Zealand Fire Service website, Facebook and other internet sites, use your smartphones to see if there are ideas from other media and sites. Here are also some of the New Zealand Fire Service's pamphlets.

Reflect on:

- What are the key messages you would try to tell people?
- How can we use the internet and social media to promote these messages?
- How do we make the communications interactive?
- How do we keep people engaged?
- How do we support people to act and do activities that reduce harm from fires?
- Who would be involved in providing information about fire safety?
- How would we encourage people to access your online information/activity? How would we link it to non-internet things?

Work in small groups, then discuss as a group.

If time allows – New Zealand Fire Service online tools

- Had we seen these before?
- What are our impressions?

- What do we like/dislike about it?
- What online tools resonate best/are most motivating? Why?
- What online messages resonate best/are most motivating? Why?
- What would motivate you to look at these tools?
- How can these be changed to better suit your needs?

4.   Any closing thoughts?

CLOSE – thanks, Koha, Fire Safety information

CHECKLIST 1. Fire safety measures

- Installing smoke alarms

- Testing smoke alarms regularly

- Not leaving cooking unattended

- Not cooking when drunk

- Don't overload power points or multi-boxes

- Always turn electric blankets off before getting into bed and have them checked yearly by a qualified electrician

- Keep furniture, clothes and curtains at least 1 metre away from heaters and fireplaces

- Being careful with ashtrays/cigarettes

- Being careful with barbeques

- Using a fireguard for fireplaces

- Using a fireguard for heaters

- Having a plan for exiting the house in case of a fire, and practising it regularly

- Securing candles in a candleholder with a wide base and keeping them away from anything that will burn easily (eg, paper, curtains)

- Putting candles out before going to sleep or leaving a room

- Never using candles in bedrooms

Litmus Group discussion on internet use

Consent Form

I agree to take part in this research project exploring how the use of the internet and digital devices is changing among people aged 65 and over. Please read each of the points below before signing:

I understand that:

- I do not have to take part in the research
- I can stop the discussion at any time and don't have to answer every question
- The discussion will be recorded
- The discussion will be observed
- Notes and reports on the discussion will be confidential and not name me
- Information collected by Litmus during the research will be held securely
- At the end of the discussion I will receive $70

Name	
Address	
Signature	
Date	