



FIRE
EMERGENCY

NEW ZEALAND

Hapori Māori in the emergency landscape

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Summary

Fire and Emergency commissions research to support its main functions:

- Reducing the likelihood of unwanted fires
- Reducing consequences from emergencies, and
- Helping build resilient communities.

Evidence Briefs summarise this research, on specific topics. They are the initial port of call for decision-makers, policy-makers, and operational staff looking to influence fire-related outcomes.

Fire and Emergency New Zealand is committed to working with iwi and hapori Māori to reduce the risk of fire-related hazards and to support response and recovery in emergencies.

The Aotearoa New Zealand integrated approach to emergency management can be described by the four areas of activity, known as the “4 Rs”: Reduction, Readiness, Response, and Recovery.

Reduction

- Māori continue to be overrepresented in fire-incident statistics. They are four times more likely to die in a fire than non-Māori.
- Fire education needs to be culturally appropriate and targeted to reduce the risks faced by hapori Māori.
- There are several key principles for working with Māori to develop effective strategies to change behaviour: whanaungatanga (relationships), manaakitanga (care and support), reo and tikanga (language and culture), pae ora (vision of wellbeing), and tino rangatiratanga (self-determination).

Readiness

- There are core barriers to be addressed in helping build the readiness of hapori Māori, including a perception that fires are unlikely to happen to them, and that the cost of fire-prevention measures are too high.
- Although Māori are overrepresented in fire-related injury and death statistics, more Māori report that they are prepared for an emergency than non-Māori.
- Including mātauranga Māori in hazard readiness, rather than taking a purely Western approach, may help to increase the resilience of, and buy-in from, Māori communities.

Response

- Case studies following the Canterbury earthquakes highlighted the ways in which Māori communities and organisations worked together to provide relief and support for both Māori and non-Māori communities.
- Lessons learned from these experiences, including the importance of incorporating Māori cultural values into the response effort, demonstrated the benefit of a Māori values-driven response to emergencies.
- Strengths-based approaches to emergency response, such as mahi aroha (work done out of a love for the people), empower communities to work together and support each other in responding to emergencies.

Recovery

- Fire can have long-lasting physical, emotional, financial, and cultural impacts on individuals and communities. There is scope for Fire and Emergency to formalise partnerships with Māori social support providers and Māori health services, to provide immediate support to hapori Māori.
- Research has described the “ideal state” of recovery, and how Fire and Emergency can best position itself to help communities towards long-term recovery.

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Summary of recommendations



Improve fire safety knowledge and practices among Māori

1. Develop and implement a Te Tiriti o Waitangi policy for Fire and Emergency.
2. Develop and deliver bicultural and culturally-appropriate policies and services for Māori.
3. Establish active community partnerships to promote and support fire-safety programmes geared towards Māori communities.



Engage effectively with Māori, iwi, and hapū

1. Use the Te Arawhiti engagement framework to develop a Māori engagement strategy.
2. Engage and work with Māori, drawing on the seven key principles of engaging effectively with Māori, iwi, and hapū.



Areas for further research

1. Carry out further mana-enhancing research into the after-fire (recovery) impacts, to capture the unique social, cultural, and health experiences of Māori.
2. Commission a comprehensive, nationwide research project on the injury and mortality rates of Māori, and the factors that contribute to readiness, risk reduction, response, and recovery for hapori Māori.
3. Conduct deeper research into the complex issues associated with Māori lifestyles (including rural living, overcrowding, overrepresentation in smoking statistics, and lack of smoke detectors in homes) to develop approaches and solutions to reduce the fire-risk factors for hapori Māori.
4. Evaluate the impact of fire-safety promotions on Māori specifically, rather than as one sub-demographic among many, as has often been the case with the research commissioned by Fire and Emergency. It could commission a research series focused solely on hapori Māori.
5. Explore and develop specific fire-safety campaigns targeted at Māori, rather than the general population. Explore and develop campaigns focused on the collective (whānau and wider communities) rather than on the individual.

The 4 Rs: Reduction, Readiness, Response, and Recovery

Fire and Emergency New Zealand is committed to working with iwi and hapori Māori to reduce the risk of fire-related hazards and to support response and recovery in emergencies.

The Aotearoa New Zealand integrated approach to emergency management can be described by the four areas of activity known as the “4 Rs”: Reduction, Readiness, Response, and Recovery (Table 1).

| | |
|-----------|---|
| Reduction | Identifying and analysing long-term risks to human life and property from hazards; taking steps to eliminate these risks if practicable, and, if not, reducing the magnitude of their impact and the likelihood of their occurring. |
| Readiness | Developing operational systems and capabilities before an emergency happens; including self-help and response programmes for the general public, and specific programmes for emergency services, lifeline utilities and other agencies. |
| Response | Actions taken immediately before, during or directly after an emergency to save lives and protect property, and to help communities recover. |
| Recovery | The coordinated efforts and processes to bring about the immediate, medium-term and long-term holistic regeneration of a community following an emergency. |

Table 1. The 4Rs: reduction, readiness, response, and recovery

Hapori Māori and reduction

Māori are overrepresented in fire injuries and deaths

The impacts of hazards and disasters are not evenly distributed. The ability to prepare for, respond to, and recover from an incident varies widely depending on social, economic, political, and geographic factors.¹

Māori are overrepresented in many of the factors related to disproportionate fire risk.² There is also considerable crossover between Māori and other vulnerable populations who are at a higher risk of being injured or killed in a fire incident: children under 5, older people, rural populations, and lower socio-economic groups.

- Māori have the highest rates of fire-related fatality in New Zealand,³ being four times more likely to die than non-Māori.^{4,5}
- For those aged over 65, mortality rates were higher for Māori than for other New Zealanders.⁶
- For children (15 or younger), mortality rates were higher for Māori than for other New Zealanders.⁷
- Hospitalisation rates for injury from fire and flame for Māori were 2.5 times the rates for non-Māori.⁸
- Māori disproportionately die at younger ages: 7 out of 11 deaths were Māori under 25 years.^{4,5}
- Māori are more likely to be involved in a multiple fatality incident.⁵

Māori are four times more likely to die than non-Māori in a fire-related incident

Hospitalisation rates due to fire and flame are 2.5 times higher for Māori than other New Zealanders

Education and services need to be culturally appropriate and aimed at improving fire-safety knowledge and practices

Studies note that socioeconomic conditions play a considerable role in the elevated fire risk of vulnerable populations, including Māori.^{9,10} Given the longer-term and systemic nature of these challenges, the research recommends that efforts to reduce ethnic disparities in fire outcomes be focused on fire-safety activities and direct interventions to help improve fire-safety knowledge.

To address the fire-hazard disparities experienced by Māori, research recommends that Fire and Emergency begin (or continue) to develop a range of risk-minimisation and support interventions.⁹

These interventions include:

- developing bicultural and culturally appropriate policies and services for Māori
- developing and implementing kaupapa Māori and cultural sensitivity training to help Fire and Emergency provide effective and appropriate support services to whānau
- embedding Māori liaison staff in each fire region
- developing policies to refer whānau to appropriate grief counselling and support services within their region, and
- establishing active community partnerships to promote and support fire-safety programmes geared towards Māori communities.

Fire and Emergency has an obligation to deliver fire-safety strategies for Māori

As a Crown agency, Fire and Emergency has an obligation under Te Tiriti o Waitangi to help deliver effective fire-safety strategies for Māori. Fire and Emergency should form an ongoing partnership with Māori through a specific Te Tiriti o Waitangi policy, which would help with identifying, prioritising, and delivering effective fire-safety strategies to Māori communities.⁹

Key features of effective risk-reduction strategies for hapori Māori

- Promoting core fire-safety advice such as keeping lighters and matches out of reach of children, monitoring cooking, and being mindful of open-flame heating sources
- Teaching people what to do for different types of fire (such as oil fires)
- Encouraging whānau to install smoke alarms, including how many, where, and how to maintain them
- Providing advice on developing and practising escape plans, including when it is necessary to call the fire brigade
- Making tamariki aware of the fire hazards that exist in different rooms of the house (such as cooking appliances in the kitchen, and heat sources in bedrooms and hallways)
- Ensuring that all promotional material is inclusive and bilingual, and that te reo Māori words are spelled and pronounced correctly.¹¹

Principles for developing effective behaviour-change interventions for Māori

Research into developing behaviour-change interventions for Māori has identified five key values to guide the development of these initiatives.¹²

| | |
|---|---|
| Whanaungatanga – strong, effective relationships | Good community relationships are critical for effective engagement. This includes ensuring that tino rangatiratanga is upheld, that appropriate time is spent developing good relationships, and using community “champions” and Māori leaders and facilitators to deliver messages to Māori communities. |
| Manaakitanga – care and support | Respectful communication and consultation with, and messaging to, Māori communities is important for effective engagement. Demonstrating genuine care and support for Māori, through using appropriate material, using reo and karakia, ensuring the fire service workforce is culturally competent and sufficiently staffed, and, where possible, engaging kanohi ki te kanohi, will make fire-safety messaging more effective. |
| Reo and tikanga – Māori language and culture | <p>Cultural sensitivity, safety, awareness, and an understanding of tikanga are critical for engaging effectively with Māori communities. Safety initiatives and promotional information should be bilingual and grounded in relevant cultural concepts.</p> <p>The alignment of behaviour-change initiatives with fundamental Māori principles (such as manaakitanga, kōtahitanga, and rangatiratanga) are most effective in changing behaviour.</p> <p>It would also be beneficial for Fire and Emergency to explicitly incorporate its values when engaging with Māori communities:</p> <ul style="list-style-type: none"> • Kia tika – we do the right thing • Manaakitanga – we serve and support • Whanaungatanga – we are better together • Auahatanga – we strive to improve. |
| Pae ora – vision of wellbeing | <p>There are many behaviour-change initiatives for and with Māori that are centred on wellbeing, and many marae and iwi have strategic plans for health and wellbeing.</p> <p>By aligning Fire and Emergency’s fire-safety activities with existing Māori health and wellbeing strategies, Fire and Emergency will be likely to increase the uptake and acceptance of programmes, maximising the effectiveness of fire-risk reduction programmes.</p> |
| Tino rangatiratanga – self-determination and autonomy | <p>Behaviour-change activities should be led by the community, to fully allow for autonomy.</p> <p>A strengths-based approach that focuses on community strengths and assets, and the ability of communities to have a voice and share their knowledge, will result in effective and engaging change initiatives. Māori involvement and leadership in the design, decision-making, and governance of interventions is important for success.</p> <p>Joint and co-designed interventions and campaigns (encompassing Fire and Emergency, key government agencies, iwi organisations, and Māori social support providers) that consider the full context of Māori whānau and communities will increase the reach and effectiveness of fire-safety initiatives.</p> |

There is significant potential for bottom-up disaster-reduction activities

Recent natural disaster events in Aotearoa, including the Canterbury earthquakes and Cyclone Gabrielle, have highlighted the need for disaster risk reduction programmes that are inclusive and contextually relevant.

To try to address the longstanding issues of Māori voices being excluded from disaster planning and to address Māori community needs, schools in the Hawke's Bay have been working to increase ākonga preparedness for a tsunami event.¹³

A bicultural, Māori-led approach has been taken to create disaster-preparedness material that is relevant for ākonga and that gives them an active role in preparing their kura and communities for a tsunami.

In order to develop “Resilient Kura”, the ākonga have worked with the school community to prepare four (virtual and physical) kete, filled with culturally and contextually-appropriate knowledge and activities:

- **Whakaoranga Whānau** (Resilient Family and Community) – focused on enhancing tsunami safety for the wider whānau and community.
- **Whakaoranga Wairuatanga** (Resilient Spirit) – fostering and protecting wairua (spirit) to help build psychological resilience.
- **Whakaoranga Hinengaro** (Resilient Mind) – increasing the knowledge of tsunami, the history of the whenua and moana in the region, and the sharing of the knowledge.
- **Whakaoranga Tinana** (Resilient Body) – enhancing bodily safety through practising evacuation drills.

Highlighting the potential consequences of fire hazards can motivate people to adopt better fire-safety practices

Research into the factors that may motivate people to change their attitudes and practices towards fire safety found that Māori whānau had been significantly impacted by fire, with 28% reporting that they had been impacted.¹⁴

Māori views on the consequences of domestic fires vary

- 16% of Māori believe it is likely that they would die if there is a fire, compared to 21% of total respondents.¹⁴
- 38% believe they would lose family heirlooms, compared to 42% of total respondents.
- 23% believe they would suffer serious burns or smoke inhalation, compared to 35% of total respondents.

Despite this, Māori agree they have an obligation to keep their homes and whānau safe from fire

Although Māori tend to disagree that they may experience serious consequences as a result of a house fire, Māori feel strongly that they have a responsibility to protect their homes and whānau against fire hazards.

- 82% of Māori agree that they have a responsibility to their whānau to keep their homes free from fire risks, compared to 68% of total respondents.
- 77% agree that they should set a good example of fire safety for their children, compared to 66% of total respondents.
- 58% agree that actively considering fire safety at home makes them feel more secure, compared to 36% of total respondents.

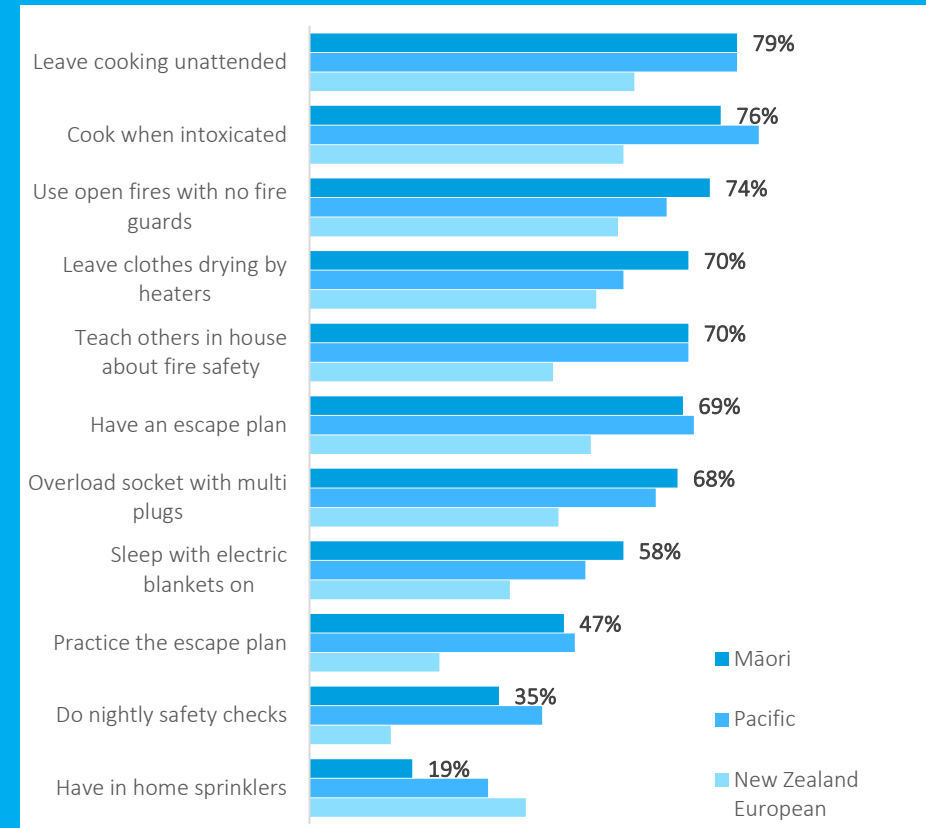
Fire and Emergency could emphasise fire-safety practices that Māori whānau already see as important

Although many Māori do not believe they would experience the severe consequences of a house fire, of the 28% who reported experiencing a fire 94% said they felt the fire was avoidable. This is encouraging for the adoption of more fire-safety practices and actions.

Māori rate many fire-safety behaviours as important, including (Figure 1):

- keeping matches and lighters away from children (90% agree)
- having working smoke detectors (87%)
- not leaving cooking unattended (79%)
- teaching whānau about fire safety (70%).

Figure 1. Importance of fire-safety behaviours: Overall, how important is it that people follow these fire safety behaviours?



Source: Research International (2011)¹⁴

Notes: $n = 412$ New Zealand European; $n = 100$ Māori; $n = 50$ Pacific. Fire safety behaviours shown are those where Māori were statistically significantly different to other ethnic groups.

Hapori Māori and readiness

Hapori Māori and readiness

Māori are overrepresented in fire-related injury and death statistics. However, 45% of Māori report that they are prepared for an emergency, compared to 27% of New Zealand Europeans.¹⁵ 64% of Māori also say they have an escape plan if there is a fire, compared to 54% of New Zealand Europeans.¹⁴

This suggests there may be barriers to engaging effectively with Māori on fire-safety knowledge and practices and preparing for potential fire emergencies. Research with firefighters has highlighted that many do not feel equipped to reach out specifically to at-risk groups like Māori, that instead they are encouraged to do generic fire-safety promotion that may not be suitable for or resonate with vulnerable populations.¹⁶

45%

of Māori report that they are prepared for an emergency compared to 27% of NZ Europeans

65%

of Māori report that they have an escape plan compared to 54% of NZ Europeans

The Te Arawhiti engagement framework provides high-level guidance on engaging with Māori

Research has shown there are very few Māori engagement frameworks or approaches within the emergency services in New Zealand.¹⁷

The most frequently used framework was developed by Te Arawhiti (the Office for Māori-Crown Relations) – this is the Te Arawhiti/Crown Engagement with Māori Framework. However, it is unclear from the literature how widely this framework is used, how well it is applied, and how effective it is from the perspective of Māori.

The Te Arawhiti framework provides a sliding scale intended to help agencies understand the impact of an issue on Māori, and then identify the appropriate methods of engaging with them (Table 1).

| Impact on Māori | Method of engagement |
|--|---|
| Minor <ul style="list-style-type: none"> Māori interests are limited or not affected in any special way | Inform <ul style="list-style-type: none"> The Crown will keep Māori informed about what is happening. Māori will be provided with balanced and objective information to assist them to understand the problem, alternatives, opportunities and/or solutions |
| Moderate <ul style="list-style-type: none"> Māori interests exist or are affected but wider interests take priority | Consult <ul style="list-style-type: none"> The Crown will seek Māori feedback on drafts and proposals. The Crown will ultimately decide. The Crown will keep Māori informed, listen, and acknowledge concerns and aspirations, and provide feedback on how their input influenced the decision. |
| <ul style="list-style-type: none"> Specific Māori interests are affected | Collaborate <ul style="list-style-type: none"> The Crown and Māori will work together to determine the issues/problems and develop solutions together that are reflected in proposals. The Crown will involve Māori in the decision-making process, but the Crown will ultimately decide. |
| Significant <ul style="list-style-type: none"> Māori interests are significantly affected Māori interests are overwhelming and compelling | Partner/Co-design <ul style="list-style-type: none"> The Crown and Māori will partner to determine the issue/problem, to design the process and develop solutions. The Crown and Māori will make joint decisions |
| <ul style="list-style-type: none"> Māori interests are central and other interests limited | Empower <ul style="list-style-type: none"> Māori will decide. The Crown will implement the decision made by Māori |

Effective engagement requires long-term relationships, based on appropriate principles and values, and clear lines of communication

Engagement with Māori needs to be genuine, authentic, and culturally informed.

There is a strong value proposition for engaging with iwi around fire prevention. As guardians of the forests, iwi have a core role to play in protecting those resources from fire. Māori also have a growing ownership role and responsibility to care for natural resources. There is therefore a clear rationale for genuine engagement with Māori in fire prevention.

A coordinated approach to engaging with Māori will provide considerable returns – with Māori opening doors into their communities, providing access to resources and cultural knowledge, and facilitating engagement with wider Māori community networks.



There are seven key principles for engaging with Māori

Research has emphasised several key principles for all organisations to abide by when they engage with iwi and Māori.¹⁷

| | |
|---|--|
| 1 Recognising the status of mana whenua | Understanding the history, language, culture, whenua, and values important to mana whenua. Mana whenua are more than simply stakeholders, and have valuable contributions to make. |
| 2 Relationships before partnerships | Relationships should be based on an established set of principles and a cultural understanding of tikanga Māori. The right people should be identified with whom to engage and maintain a relationship over time. There must also be an acknowledgement that relationships with Māori are diverse, and evolve over time. |
| 3 Recognising and giving effect to the spirit and intent of Te Tiriti o Waitangi | This includes genuine and authentic expression of the Treaty principles, including acting reasonably, honourably and in good faith towards each other as Treaty partners; encouraging Māori to actively participate in the relationship and taking active and positive steps to ensure that Māori interests are protected. In some engagement frameworks and strategies, the principles were implicit and in other frameworks they were more overt. However, it is imperative that acknowledging iwi Māori as Treaty partners is considered. |
| 4 Fostering Māori involvement in decision-making | Fostering Māori involvement in decision-making includes creating the space for sharing power and control to ensure engagement is meaningful and authentic; and listening and acting on Māori interests. |
| 5 Holistic approaches | Taking a holistic approach to engaging by recognising the multiple kaupapa whānau, hapū and iwi are involved in, and also recognising that the most appropriate engagement response may need to leverage off other iwi priorities. |
| 6 Monitoring and review | While best practice principles suggest there needs to be processes embedded into the engagement process which enables Māori to review the relationship and the extent to which it is effective in meeting shared aspirations, there is little evidence in the literature to suggest this is done or done well. |
| 7 Recognising the process is as important as the end point | Utilising culturally-informed and mana-enhancing processes and practices when engaging with Māori is critical. Some of these practices include: <ul style="list-style-type: none">• Kanohi ki te kanohi• Rangatira ki te Rangatira• Being open, flexible and transparent• Being accountable, closing the loop and resolving issues• Using clear and appropriate language. |

Key barriers to changing attitudes towards fire safety

Research into vulnerable populations, including Māori, has highlighted several main barriers to a “fire-safe lifestyle”.¹⁸

- **Fires are seen as very unlikely or uncommon** – Many people don’t believe that fire will impact them, and they believe that, if it does impact them, the impacts will be minor. There is a clear opportunity for Fire and Emergency to promote and illustrate the likelihood of a fire, and the potential consequences.
- **Time and cost are seen as prohibitive** – A common theme across many vulnerable populations is that they see fire safety as too time- and cost-prohibitive (e.g. buying and maintaining fire extinguishers, smoke detectors, and new batteries), and the likelihood of a fire is not seen as high enough to justify the cost. There is a practical opportunity for Fire and Emergency to promote the benefits of fire-safety equipment, and potentially partner with organisations to provide discounted equipment for hapori Māori.
- **Renters see fire safety as the landlord’s problem** – Many renters do not see the house as “their” property, and think that fire-safety equipment should be an issue for the landlord. They believe that if there is a fire all they will lose is property like clothing and furniture, which can be replaced. There is an opportunity for Fire and Emergency to work with real estate and property management companies to ensure that all rental accommodation is fitted with appropriate fire-safety equipment.

As well as barriers, research has identified key lessons for motivating and encouraging fire-safety behaviours

The same research that identified the barriers to vulnerable populations being fire-safe also identified these three key lessons for motivating fire-safe behaviours:

| 1. Make it real | 2. Intervene in people's lives at effective times | 3. Vary your messages |
|--|---|--|
| People need to believe that a fire can happen to them, and that the consequences are potentially dire. | There are specific points in people's lives where they often reassess their values and behaviours (starting the school year, buying a first home, having children, moving houses, retiring). Partnering with organisations that engage with people at these different life stages could provide Fire and Emergency with opportunities to effectively convey fire-safety messages. | Different people have different triggers when it comes to fire safety. It is important to cover all bases by delivering different messages, with different themes, at different times. |

Several programmes have aimed to increase the readiness of hapori Māori in different contexts

Fire and Emergency have developed and implemented several programmes aimed at promoting fire-safety awareness in Māori communities. These programmes include *Ngā Whakatūpato Ahi Mō te Marae* (a marae fire-safety programme), *Māui Tinei Ahi* (a Kōhanga Reo and Kura Kaupapa Māori school project), and *Te Kotahitanga* (education for “at risk” households in the community).¹⁹

Reviews and evaluations of these programmes have produced several lessons and recommendations to help Fire and Emergency improve similar programmes in the future.

Targeting support to vulnerable communities across Aotearoa

Direct interventions into vulnerable and at-risk communities can contribute significantly to improving their fire-safety knowledge and practices. Research has identified ways in which these programmes can be strengthened:¹⁹

- Improve information-sharing and access to data across regions, to help refine and tighten project delivery and outcomes
- Fund and implement a wider range of location-specific research to understand the opportunities and challenges facing different communities in different contexts
- Increase funding to expand the coverage of projects within each fire region.

Kura are a great resource to teach tamariki about fire safety

A large proportion of fires are caused by matches and lighters being left unattended. As well as safety and prevention, children also need to understand what to do if there is a fire. Programmes targeted at tamariki, and run through kura, are a great means to educate them in fire safety and awareness. These programmes can be further strengthened by:¹⁹

- Increased investment for local fire educators
- Greater information-sharing between kura
- Further research to tailor education resources to different age groups
- Strategies to ensure that what is taught to tamariki is also shared with their whānau.

More could be done to help prepare hapori Māori to respond to a fire

Research into the efficacy of fire-safety messaging shows more could be done to support hapori Māori in responding to a fire. Many individuals reported that they would be “too shy” to call the fire brigade to respond to what they considered to be a “minor” fire, for fear of seeming “stupid”.²⁰

Although respondents emphasised that they found Fire and Emergency to be a “friendly service”, more could be done to educate hapori Māori on when it is appropriate to call the fire brigade, without them feeling they will be judged. Respondents felt that having more fire service staff with greater cultural understanding (or more Māori staff) would help the fire service to better engage with these communities.

Many Māori also felt that Fire and Emergency’s promotional and advertising material **focused more on precautionary measures (reducing the risk of a fire) than on how to respond to or put out a fire.**

Marae are vulnerable to fire and need to be preserved and made fire-safe

Marae are places of high cultural significance to Māori. The literature notes that marae can be particularly vulnerable to fire for several reasons:²¹

- **A lack of marae income:** this affects the ability of marae to adequately fund fire-safety equipment, invest in insurance, and develop fire-safety plans.
- **Competing priorities:** with limited income, marae need to make decisions about what to invest in (for example, new flats for kaumātua versus safety equipment).
- **Local conditions:** the lack of reliable water and electricity affect the ability to pump water to a site to battle a fire, or to use sprinklers.
- **Distance:** given that many marae are rural, it will likely take longer to discover, and respond to, a fire.

Given the uniqueness of marae, and the role they play in preserving taonga, researchers recommend:¹⁹

- increased support for marae to access capital funding to invest in fire-safety equipment
- dedicated staff in fire regions to support marae to improve their systems and practices
- exploring the role of local firefighters in promoting fire-safety for marae
- support iwi and marae to engage with museums to catalogue, record, and archive taonga for long-term preservation.



More can be done to incorporate mātauranga Māori into disaster readiness

The communication of risks and natural hazards typically take a Western approach: the development of “hazard maps” and “exclusions zones” that don’t take account of the livelihoods or cultural connections of Māori communities, or their historical knowledge of the region.²²

To increase the resilience of Māori communities, research has recommended supporting Māori researchers to develop initiatives that are rooted in traditional practice and knowledge and draw on iwi experiences and the history of the area.

This information can be used together with wider hazard management plans, combining mātauranga Māori and Western scientific worldviews, to develop tools and approaches to build readiness and resilience in Māori communities. This model has been applied to other areas of research, through the He Awa Whiria – Braided Rivers model, combining Western science and te ao Māori.²⁹



Hapori Māori and response

The Canterbury earthquakes showed the value of a Māori values-driven response for communities

In the aftermath of the 2010 and 2011 Canterbury earthquakes, the Māori Recovery Network (MRN) was established.²³ The MRN was a joint and collaborative effort between Te Rūnanga o Ngāi Tahu, the Urban Māori Authority, Te Puni Kōkiri, Te Tai Tonga electorate, New Zealand Police, and the New Zealand Māori Wardens Association.

The Māori Recovery Network was set up to respond to key challenges, including:

- the geographic spread of Māori communities
- a lack of Māori representation and inclusion in disaster-response planning
- a lack of understanding of tikanga in dealing with the deceased, and
- a failure to activate local marae as Civil Defence hubs.

The MRN response was driven by Māori values, but inclusive of the diverse communities across Canterbury. It also worked to ensure that the mainstream disaster response was also inclusive and culturally aware.

The MRN operated on a personal and community level, proactively reaching out to whānau and communities rather than waiting for them to seek support. This included establishing a 24-hour helpline, distributing donated goods, arranging financial support, and providing food, shelter, and comfort through tribal marae.

Key lessons learned from the Māori Response Network

Researchers identified several key lessons that were learned in providing a Māori values-driven response to a disaster:²³

- Meeting people *kanohi ki te kanohi* (face-to-face) was extremely valuable in helping whānau feel seen and understood.
- Māori cultural values were practised widely and as an integral part of the response, making Māori communities feel valued and heard.
- The leadership role assumed by the iwi (Ngāi Tahu) meant it could quickly engage its networks and resources to support the response effort.
- The MRN model allowed rapid decision-making, which enabled quick action to direct financial, physical, and cultural support to those who needed it.

Mahi aroha represents a strengths-based approach to responsiveness and recovery

Mahi aroha was demonstrated during the 2010 and 2011 Canterbury earthquakes. Under the coordination of Ngāi Tahu, volunteers were empowered to connect with their communities (both Māori and non-Māori) and support those in need. The “culturally-attuned collective response” highlighted the ability of iwi Māori to quickly activate their networks, engage their resources, and identify and support those in need.²⁵

The COVID-19 pandemic and associated lockdowns saw further demonstrations of mahi aroha by Māori communities, in response to the increased vulnerability of Māori to the virus and the hardship caused by the pre-existing conditions of insecure housing and poverty:²⁵

- Marae were closed to avoid mass spreading of the virus, a difficult decision for many iwi and hapū.
- Tangi had limited numbers, and social distancing guidelines were required.
- Many hapū and communities implemented checkpoints to ensure that only locals were entering the community, to limit the spread of the virus.
- Whānau used social media to stay connected, sharing knowledge and experience, and providing advice for healthy kai.
- Iwi organisations activated their networks to support whānau and kaumātua with hygiene packs, kai, and companionship.

A literature review concluded that the Western concept of “volunteering” did not accurately reflect the Māori worldview, nor the experiences and motivations for carrying out unpaid work.²⁴ Instead, the closest concept to volunteering in te ao Māori is “mahi aroha”.

Mahi aroha (work undertaken out of a love for the people) is seen as core to Māori cultural identity. It is an expression of manaaki (sharing kindness and respect for others) and manaakitanga (hospitality), and an expression of genuine concern and care for others.²⁵

Hapori Māori and recovery

Recovery is a complex process, but there is no formal definition of “recovery”

The process of recovering from an emergency or disaster is long and complex. It requires many parties working together to support those who have been affected. An effective and timely recovery process is vital to the long-term recovery and wellbeing of impacted communities.²²

There is no reference to, or definition of, recovery in the Fire and Emergency New Zealand Act 2017. However, recovery activities are a key function of Fire and Emergency in helping individuals and communities after an emergency.

Through Hiwa-i-te-rangi (its Māori Outcomes Programme), Fire and Emergency is committed to working with Māori. Therefore, any formalised recovery framework must be culturally appropriate and relevant to Māori. It must incorporate Māori perspectives and tikanga, and equip emergency response staff with the knowledge and skills to support hapori Māori.

Fire and Emergency provides whānau and families with immediate relief during and immediately after a fire or emergency. This is intended to:

- **reduce any immediate or long-term trauma that they may be experiencing as a result of losing loved ones, belongings, property or income from a fire, and**
- **guide them towards longer-term support and assistance.**

Researchers have conceptualised an “ideal” state for recovery for Māori

Current research, incorporating literature with a focus on recovery from a Māori or indigenous perspective, has detailed what an “ideal” approach to recovery would look like, and what is required to support Fire and Emergency to achieve that state.²⁶

That research, based on a literature review and interviews with staff and stakeholders, sets out the following role for Fire and Emergency in hapori Māori recovery:²⁶

With immediate support from Fire and Emergency, whānau can start the journey towards healing and restoring what was lost. Current recovery practices of Fire and Emergency include:

- referring people to support organisations (for food, clothing, housing, and emotional support)
- providing support and care onsite for those affected, and
- advising people on what to expect next following a traumatic event.

The “ideal state” emphasises immediate support and relief, coupled with helping affected people access longer-term support (beyond the scope of Fire and Emergency’s role). It also acknowledges the need to show care and compassion to affected people immediately following an emergency, and the importance of minimising trauma in order to support and facilitate longer-term recovery.

Fire and Emergency has work to do in order to achieve the “ideal state”

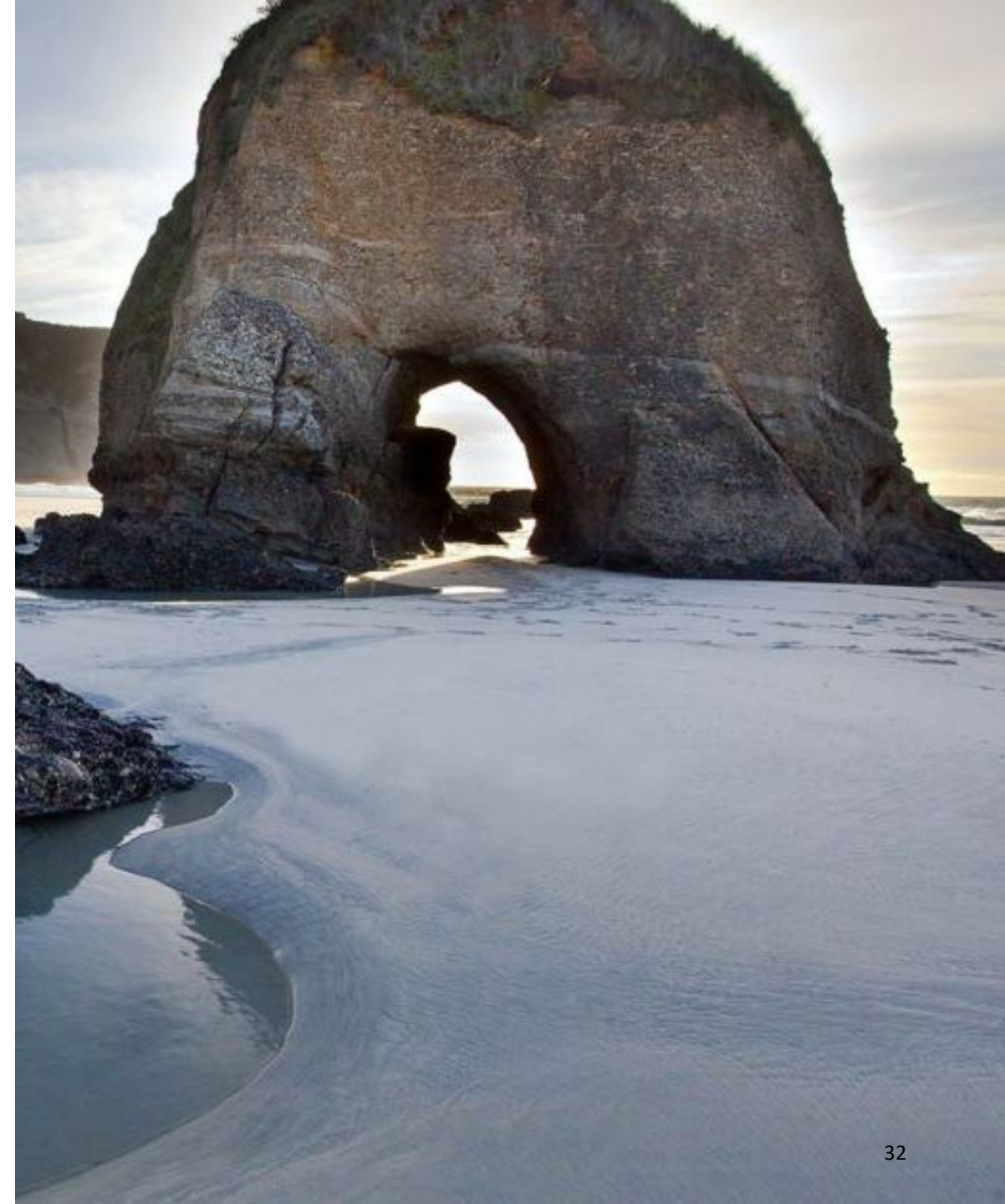
Researchers have detailed three phases of work that Fire and Emergency needs to do, to help it reach its ideal state in supporting community recovery.²⁶

- 1** Fire and Emergency needs to **socialise and increase awareness** of what recovery is and means to the organisation. This includes clearly defining what “recovery” means for Fire and Emergency; developing an evidence base of research, evaluations, and case studies, to demonstrate how Fire and Emergency can best support communities to recover; and ensuring that Fire and Emergency leaders at both regional and national levels share and communicate what recovery is and the role Fire and Emergency plays.
- 2** Fire and Emergency needs to **operationalise** recovery activities following an emergency – that is, it needs to increase knowledge and the ability to deliver those activities. This would best be delivered at a district level, but fully supported at the national level. This would require: national systems, policies and guidance for all brigades; district-led implementation of policies and procedures in a way that best suits the local context; and a national understanding and expectation of what successful “recovery” practices look like.
- 3** Fire and Emergency needs to **embed** recovery as a business-as-usual function. This will enable Fire and Emergency to best support recovery within its wider context of disaster and emergency management, from providing immediate relief to affected communities, through to longer-term recovery. To do this, Fire and Emergency will need to: review current policies and procedures to ensure they are consistent with improving recovery practices; share effective practice across the organisation and embed these lessons into staff training; and embed the role of “recovery” within Fire and Emergency legislation.

A greater understanding of tikanga is being demonstrated in fire regions

In 2006, Golden Bay fire brigades became the first to enter a formal agreement to honour Māori protocol at the scene of fatal fires and accidents.²⁷

The memorandum of understanding, signed with local iwi, included updated operational procedures to respect Māori cultural beliefs and allow for the sites of fatalities to be blessed. It is not clear how widespread this practice is, either formally or informally.



Fire can have long-lasting impacts on communities

Putting out the fire is only the beginning of a person's journey towards recovery from the incident. People can experience significant and varied emotional, physical, financial, and cultural difficulties following a fire.²⁸

Given that Māori have higher rates of fire-related injuries and fatalities, it is likely that Māori communities experience greater impact from fire incidents. However, the extent of this is not clear from current research, which has tended to focus on the economic impacts.

The research that has been conducted in this area has made several recommendations for supporting hapori Māori in their recovery following a fire:²⁸

- Identify opportunities to formalise immediate access to social services and Māori support providers for victims
- Clarify the role of kaupapa Māori health and social service organisations to provide trauma-informed post-fire support
- Review all current post-fire support resources and documentation, to ensure it is appropriate for Māori, and consider providing te reo Māori versions.



Summary of recommendations

Summary of recommendations for Fire and Emergency

Improve fire safety services and practices to be more culturally relevant

1. Develop and implement a Te Tiriti o Waitangi policy for Fire and Emergency.
2. Develop and deliver bicultural and culturally appropriate policies and services for Māori.
 - Embed Māori liaison staff in each fire region.
 - Develop policies to refer whānau to appropriate grief counselling and support services within their region.
3. Establish active community partnerships to promote and support fire-safety programmes geared towards Māori communities.

Engage effectively with Māori, iwi, and hapū

1. Use the Te Arawhiti engagement framework to develop a Māori engagement strategy.
2. Engage and work with Māori, drawing on the seven key principles of engaging effectively with Māori, iwi, and hapū.

Recommendations for future research

1. Carry out further mana-enhancing research into the after-fire (recovery) impacts, to capture the unique social, cultural, and health experiences of Māori.
2. Commission a comprehensive, nationwide research project on the injury and mortality rates of Māori, and the factors that contribute to readiness, risk reduction, response, and recovery for hapori Māori.
3. Conduct deeper research into the complex issues associated with Māori lifestyles (including rural living, overcrowding, overrepresentation in smoking statistics, and lack of smoke detectors in homes) to develop approaches and solutions to reduce the fire-risk factors for hapori Māori.
4. Evaluate the impact of fire-safety promotions on Māori specifically, rather than as one sub-demographic among many, as has often been the case with the research commissioned by Fire and Emergency. It could commission a research series focused solely on hapori Māori.
5. Explore and develop specific fire-safety campaigns targeted at Māori, rather than the general population. Explore and develop campaigns focused on the collective (whānau and wider communities) rather than on the individual.

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