

THE IMPACT OF KA ORA TE WHENUA, KA ORA TE WHĀNAU

Evaluation for Ngāti Rangi – Ngā Waihua
o Paerangi and Sport NZ (Ihi Aotearoa)

Dr Madeline Shelling and Dr Catherine Leonard



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The Ka Ora te Whenua, Ka Ora te Whānau project stands as a powerful assertion of rangatiratanga o te kai, emerging at a critical time in Aotearoa, as evidenced by rising living costs, climate change, and political challenges to Māori sovereignty. All participants in this project are making a profound contribution to the hauora, self-determination, and collective mātauranga of their whānau, hapū, and iwi, with impacts that will resonate for generations to come.

Watching this kaupapa unfold has been truly inspirational. We extend our heartfelt mihi for your engagement with this evaluation. We eagerly anticipate seeing the literal and figurative fruits of your mahi in the next growing season.

Nō reira, tēnā koutou, tēnā koutou, tēnā koutou katoa.

Contents

Executive Summary	1
Background	3
Literature Review	6
Introduction	7
Activity and health	7
Limitations of existing strategies to improving health and wellbeing	8
Equitable initiatives for health and wellbeing	8
Gardening as physical activity	10
Māra kai contribute to hauora	10
Conclusion	12
Methodology and Evaluation Design	13
Analysis of first interviews	14
Māra kai are a space for connection	15
Increasing dependence on te taiao while reducing reliance on the system	15
Māra kai are symbols of rangatiratanga and mana whenua	15
Intergenerational transmission of mātauranga Māori	16
Enhancing hauora by aligning with Te Whare Tapa Whā	16
Anticipated barriers	17
Summary	18
Case Study 1: Tuhi Ariki Marae	19
Case Study 2: Maungārongo Marae	22
Case Study 3: Tiorangi Marae	28
Analysis of outcomes across the Ka Ora te Whenua, Ka Ora te Whānau Investment	28

In what ways does Ka Ora te Whenua, Ka Ora te Whānau achieve the aspirations of the Hawaiki Hou fund?	31
What have whānau learnt through participating in Ka Ora te Whenua, Ka Ora te Whānau?	32
What unintended impacts/benefits occurred as a result?	32
What can we learn to inform future programme/approach development?	32
Appendix 1: Ka Ora te Whenua, Ka Ora te Whānau Theory of Change	34
Appendix 2: Methodology	36
Kaupapa Māori	37
Document and Literature Review	37
Interviews	27
Ethics	37
Limitations	38
References	39



Executive summary

Ihi Research was commissioned by Ngāti Rangi – Ngā Waihua o Paerangi to evaluate the impact of Ka Ora te Whenua, Ka Ora te Whānau. The funding sits under Sport NZ's Hawaiki Hou fund. Ka Ora te Whenua, Ka Ora te Whānau, has a strategic goal to "seed, incubate and scale remarkable ideas" that will "shift current practices and systems that are necessary to make it easier for all New Zealanders to be active".

The fund has been designed to support marae across Te Kāhui o Paerangi, which had aspirations to establish māra kai for their whānau. The māra kai reflect the aspirations of whānau and projects are spearheaded by marae champions. In the funding period, Ngāti Rangi held two weekend wānanga for the champions to come together and share ideas, mātauranga and their progress on the māra kai.

From October 2023 until July 2024, the Hawaiki Hou fund supported four marae to establish māra kai, designed and developed by whānau Māori, for whānau Māori. The collaboration between the Sport NZ Hawaiki Hou Fund and Ngāti Rangi envisioned positive hauora outcomes and impacts, including physical, mental, spiritual and social benefits.

The evaluation was guided by Kaupapa Māori Research (KMR) principles, emphasising collaboration with Māori communities and prioritising Māori cultural practices and aspirations and sought to answer the following research question:

- In what ways does Ka Ora te Whenua, Ka Ora te Whānau achieve the aspirations of the Hawaiki Hou fund?

In addition, four evaluative questions were used to inform continuous improvement and learning. These are:

- 01** What have whānau learnt through participating in Ka Ora te Whenua, Ka Ora te Whānau?
- 02** What unintended impacts/benefits occurred as a result?
- 03** What are the wider hauora benefits for whānau?
- 04** What can we learn to inform future programme/approach development?

Another aim of the evaluation was to develop a theory of change¹ that demonstrates how Ka Ora te Whenua, Ka Ora te Whānau meets the Sport NZ 'Preferred Futures' outcomes framework.

Evaluation methods

The evaluation used mixed methodologies including various methods of data collection and analysis.² A document and literature review were undertaken to understand the objectives of Ka Ora te Whenua, Ka Ora te Whānau within a wider body of knowledge. Semi-structured interviews were conducted with diverse participants over time, to gather qualitative data and reflections on the progress and outcomes of māra kai projects. Three qualitative case studies were then developed to demonstrate the outcomes and impacts for whānau. This approach allowed for a comprehensive understanding of the project's evolution and effects on the community over time.

Key results

Whilst Ka Ora te Whenua, Ka Ora te Whānau is still in the early stages of the physical development of the māra kai, qualitative analysis highlights a range of positive outcomes related to whānau, whenua, and whakapapa. Key outcome themes include:

- **Whānau** – The project is fostering whanaungatanga through collaborative decision-making and planning. It's developing mahi tahi, a collective work ethic and cooperation among whānau members. The excitement of the māra kai is bringing whānau together.
- **Kaitiakitanga** – Whānau are asserting their role as kaitiaki by establishing values for māra kai that align with kaitiakitanga.
- **Mātauranga** – The project is providing spaces of connection to and transmission of mātauranga, reo and tikanga and opportunities to revitalise traditional māra kai knowledge
- **Rangatiratanga** – The project is increasing whānau self-reliance, self-sufficiency, and dependence on te taiao while reducing reliance on a capitalist economic and supermarket food system. The māra kai are becoming a symbol of rangatiratanga and mana whenua

¹ The theory of change is included in Appendix 1.

² For a full description of the methodology please refer to Appendix 2.

- **Hauora** – Outcomes align with Te Whare Tapa Whā, Sir Mason Durie's (1985) framework of physical, social, spiritual and mental wellbeing in te ao Māori.

Based on key evaluation results, there are five recommendations for the continued success of this kaupapa:

01 Streamlined communication and flexible funding processes are needed to maintain project momentum, community enthusiasm and support key growing seasons.

02 Increase inter-marae collaboration through more frequent wānanga and shared resources to enhance efficiency and collective mahi.

03 Develop a centralised knowledge-sharing platform to facilitate the exchange of ideas, best practices, and resources among marae.

04 Balance collective decision-making with efficient progress by ensuring broader whānau engagement in mahi māra kai responsibilities.

05 Conduct an evaluation at the end of the growing season.

This evaluation found that Ka Ora te Whenua, Ka Ora te Whānau has provided a pathway to flourishing māra on four marae. By implementing these recommendations, future iterations of Ka Ora te Whenua, Ka Ora te Whānau and similar projects can enhance their effectiveness, sustainability, and impact on participating marae and communities.





Background

Ka Ora te Whenua, Ka Ora te Whānau is an innovative programme developed by Ngāti Rangi and Sport NZ. This initiative aims to enhance whānau physical activity while simultaneously promoting environmental health through māra kai and whenua-based projects. The programme contributes to Whānau Ora, wellbeing of the whānau, by developing Whenua Ora, wellbeing of the land and environment.

This is the first year Ka Ora te Whenua, Ka Ora te Whānau has been funded. Ngā Waihua o Paerangi announced the opportunity for marae participation in this project in 2023, and five marae registered interest in the opportunity. However, only four marae from three paepae³ were able to meet the project timeframes for this kaupapa. A project champion was appointed in January 2024. Their role was to work with a marae champion from each of the four marae. A contract, project plan and budget were then agreed between the marae champions on behalf of their marae and Ngā Waihua o Paerangi. The six-month contract, which ran from January 2024 to June 2024, was initially intended to start several months earlier but faced delays.

Marae champions were supported with resources to help develop projects on their whenua, according to the needs of the specific paepae. It was expected that the marae where the māra would be built would receive support from other marae within their paepae. In turn, this marae would be able to provide kai for those marae and the surrounding whānau. Ruapehu WorX, operating under the Ngāti Rangi entity Pae Whakahaumarū, dedicated time and resources to the construction and development of each of the māra.

Two wānanga were held to bring together marae champions of the four māra and interested whānau. The first wānanga was held in December 2023 at Tīrorangi Marae, and involved site visits to the four marae. Workshops were led by experts in māra kai, mātauranga Māori, seed-saving, and the maramataka. The focus of the first wānanga was to share ideas and inspiration. The second wānanga in June 2024 involved visiting the proposed māra sites and sharing progress updates. This wānanga focused on building connections to the whenua, the maramataka and utilising resources most efficiently in the community. The opportunity to learn from those with expertise in māra was profound. Across the wānanga, the participants benefitted from the experience and contribution of Pā McGowan; Meretini Huxtable-Bennett; Jade Moana and Joe Allan.

The project was frequently profiled on the Ngāti Rangi social media pages and received considerable feedback from uri, who were proud of the progress being achieved. A series of digital stories were also produced to share the experience amongst whānau.

The paepae and māra structure is described in the following table:

Paepae	Hautapu Paepae	Whangaehu Paepae	Mangawhero Paepae	
Marae	Raketapauma	Tīrorangi	Maungārongo	Tuhi Ariki

Table 1. Project structure

Ngāti Rangi and Sport NZ have fostered strong relationships with each other and with local organisations such as Ruapehu WorX, and four marae from three different paepae. This initiative is part of the Sport NZ Hawaiki Hou Investment Fund, a \$45 million investment in community-led projects. Hawaiki Hou is underpinned by the following whakataukī:

*Ko te pae tawhiti, whāia kia tata
Ko te pae tata, whakamaua kia tina.*

Seek out distant horizons that they draw near and seize the opportunities at hand.⁴

This whakataukī refers to a ‘Hawaiki Hou’ or a new world that is different and better. When our tīpuna set out for Hawaiki Hou they did so with a clear intent to not return to the world they were leaving but forge ahead into a new world. Hawaiki Hou is named with the same intent. It is an incubator for future-focused transformative change. Through Hawaiki Hou, Sport NZ will seed and scale innovative ideas to achieve systems change that supports a preferred future of physical activity in Aotearoa, New Zealand (Sport NZ, n.d.)

The aim of Sport NZ through Ka Ora te Whenua, Ka Ora te Whānau is to investigate

³ Paepae are an iwi-specific structure unique to Ngāti Rangi. They have five paepae that encompass a cluster of marae. Three of the paepae under Ngāti Rangi had marae that expressed interest in developing a māra, with Mangawhero paepae having two marae that were interested.

⁴ Source: Nā Tākuta Whakaari Te Rangitakukū Mete-Kingi of Whanganui.

and encourage movement and hauora by integrating physical activities with kaitiakitanga. Sport NZ has a 'Preferred Futures' outcomes framework, which will drive the evaluation.

This is aligned with Sport NZ's five core Pou:

Pou tahi - Mana Taurite

To build a just society that is inclusive, equitable, and safe.

Pou rua - Mana Tangata

Empowering communities and enhancing decision-making autonomy.

Pou toru - Mana Māori – Honouring Te Tiriti o Waitangi by working in genuine partnerships, protecting Māori culture, and promoting culturally distinctive ways of being active.

Pou whā - Oranga Taiao/Oranga Tangata

Improving our relationship with the environment by safeguarding natural resources, enabling universal access, mitigating and adapting for climate change.

Pou Rima - Mauri Ora

Promoting wellbeing of New Zealanders by acknowledging the value that physical activity

brings to our wellbeing and the identity of Aotearoa, New Zealand (Sport NZ, n.d.).

These Pou represent shifts in the current practices and systems of Sport NZ that are necessary to make it easier for all New Zealanders to be active. Using this framework, this evaluation has:

- Developed a theory of change that demonstrates how Ka Ora te Whenua, Ka Ora te Whānau meets the Sport NZ Preferred Futures' outcomes framework.
- Demonstrate the ways in which Ka Ora te Whenua, Ka Ora te Whānau reflects the aspirations of Sport NZ through the framework.

As this is the first year of funding for Ka Ora te Whenua, Ka Ora te Whānau, the evaluation focuses on understanding the potential impacts of the māra kai projects. As the allocation of funding was not aligned with the growing season, this evaluation primarily explores whānau aspirations for these māra kai. This evaluation also identifies early revelations from whānau about their mahi māra as they await the next growing season.





Literature Review

Introduction

In Aotearoa New Zealand, persistent health disparities between Māori and non-Māori populations highlight the need for more effective health and wellbeing strategies (Penetito-Hemara, 2024). Monocultural Western perspectives, top-down programme implementations, and a failure to recognise colonisation as a determinant of health have hindered progress in addressing these disparities. There is a critical opportunity to address equity in health and physical activity through kaupapa that align with te ao Māori values (Penetito-Hemara, 2024). Mahi māra and outdoor activities not only offer opportunities for physical activity but also contribute to many holistic wellbeing benefits (Wiles et al., 2020). Research widely acknowledges that increasing physical activity leads to long-term physical, mental, and social benefits, and that physical activity was always an integral part of holistic wellbeing for Māori (Henwood & Whāriki, 2007). Therefore, programmes aiming

to achieve positive outcomes for Māori must be firmly rooted in Māori realities, knowledge, and aspirations.

The aim of this literature review is to explore key themes relevant to Ka Ora te Whenua, Ka Ora te Whānau. It begins by discussing the relationship between physical activity and health, with a particular focus on highlighting disparities in Aotearoa New Zealand where insufficient physical activity poses a significant risk factor. Additionally, it addresses the limitations of current health and wellbeing strategies, especially concerning the persistent disparities between Māori and non-Māori populations. The importance of māra kai to Māori is examined, highlighting the cultural significance and role of māra in promoting health and wellbeing. This literature review aims to provide a foundation for understanding the potential impact of Ka Ora te Whenua, Ka Ora te Whānau on Māori health and wellbeing.

Activity and health

The relationship between physical activity and health is well-established, with regular exercise providing numerous benefits across mental, physical, and social dimensions (Lahart et al., 2019). Physical activity serves as a modifiable risk factor for many chronic diseases, including cardiovascular disease, Type 2 Diabetes, various cancers, and depression (Warburton et al., 2006). Elevated levels of sedentary behaviour are linked to increased risks of a multitude of chronic diseases or clinical conditions (Lahart et al., 2019). As well as a considerable list of physical health-related benefits, a number of psychological benefits of physical activity have been identified, with the most evidence concerning depression and anxiety (Kim et al., 2012). Importantly, Warburton et al. (2006)

found that even small improvements in physical fitness can significantly reduce the risk of these negative health outcomes.

In Aotearoa New Zealand, health inequities and disparities in levels of activity are particularly evident. Māori and Pacific peoples' populations bear a greater burden of cardiovascular disease and experience lower life expectancy (Littlewood et al., 2020; Selak et al., 2020). Inequities are further exemplified by Māori mortality rates, which compared to non-Māori are three times as high for chronic obstructive pulmonary disease, twice as high for cardiovascular disease and diabetes, and one and a half times as high for strokes and various cancers (Ministry of Health, 2016).

Limitations of existing strategies

to improving health and wellbeing

Current approaches aimed at mitigating health inequities for Māori continue to fall short of success. This is primarily due to their narrow focus on individual physical health conditions and a failure to acknowledge the role of colonisation in the creation of wellbeing inequities (Reweti et al., 2023). Additionally, many health strategies are yet to meaningfully position Crown responsibilities entrenched in Te Tiriti o Waitangi, limiting their responsiveness and relevance to Māori health aspirations (Reid et al., 2017). The literature highlights that health strategies grounded in individualistic concepts do little to enhance the wellbeing of Indigenous peoples. This is particularly due to Indigenous people typically living in more collective societies with interconnected lived experiences (Reweti et al., 2023). Monocultural health interventions, institutional and individual racism, negative stereotypes, and discrimination, exacerbated by socioeconomic disparities, create significant barriers preventing whānau Māori from engaging in sports, physical activities, and leading healthier lives (Littlewood et al., 2020; Wild et al., 2021). In Aotearoa, numerous health-

focused lifestyle interventions designed to improve Māori wellbeing have shown limited evidence of sustained change (Wild et al., 2021; Littlewood et al., 2020). Furthermore, the short-term nature of funding cycles can impede the ability of grassroots initiatives to achieve long-term sustainability.

Critically, many analyses of 'Māori health' have focused on contemporary Māori ill-health and disparities measured against Pākehā health standards (Reweti et al., 2023). While health inequalities and inequities have been exposed, solutions, strategies and interventions often remain to be deficit-based and 'whitestreamed' (Reweti et al., 2023, p. 11). Achieving meaningful and sustainable progress in Māori health and wellbeing requires a comprehensive te ao Māori approach. Such an approach should consider the collective health of the community and the environment, align with Māori worldviews and values, and move beyond the limitations of current strategies that often overlook the interconnected nature of Māori health and wellbeing (Henwood & Whāriki, 2007).

Equitable initiatives

for health and wellbeing

Recognising the limitations of current health and wellbeing initiatives for Māori has driven a growing interest in identifying more effective strategies. Allowing communities to exercise autonomy over creating and shaping programmes aimed at improving health and

wellbeing is essential for fostering meaningful and sustainable outcomes in the Māori context. Examples of approaches that contribute to equitable health and wellbeing outcomes include, Te Whare Tapa Whā (Durie, 1985), Whānau Ora and Whānau centred approaches

(McMeeking, 2019), cultural-collective approaches, and rights-based approaches.

Te Whare Tapa Whā, a holistic Māori health model developed by Sir Mason Durie (1985), conceptualises wellbeing as encompassing four interconnected dimensions: taha tinana/physical wellbeing, taha hinengaro/mental wellbeing, taha whānau/social wellbeing, and taha wairua/spiritual wellbeing. This model emphasises that all four dimensions must be in balance for overall health and wellbeing (Durie, 1985). By acknowledging the holistic nature of health as represented in Te Whare Tapa Whā, initiatives to promote physical activity can be designed to support multiple dimensions of wellbeing. This comprehensive approach, addressing physical, mental, emotional, spiritual, and social aspects, can contribute to a more effective improvement in Māori health outcomes (Durie, 1985; Durie, 2004)

Whānau Ora and whānau-centred approaches are examples of health and wellbeing strategies that are embedded in te ao Māori and fundamentally rooted in the principle of self-determination of outcomes. Whānau Ora has revolutionised Indigenous health initiatives in Aotearoa New Zealand (McMeeking, 2019). Originating in 2010, Whānau Ora frameworks challenge traditional notions of wellbeing and effectiveness, emphasising collaborative, holistic engagement with the collective over individual-focused methods (McMeeking, 2019). Whānau Ora departs significantly from the mainstream government-led model by adopting a "whānau-centred" strategy that employs a "strengths-based" approach, leveraging existing capacities within communities (McMeeking, 2019, p. 159). Traditional government health services, often individualised rather than whānau-oriented, have resulted in fragmented delivery to whānau, lacking integration and coordination.

This approach acknowledges that Māori should have the autonomy to define, pursue, and evaluate their own health and wellbeing goals, based on their unique cultural perspectives and needs (McMeeking, 2019). This becomes a key avenue for reclaiming and enhancing self-determination and the mana of individual hapū, aligning with the essence of Whānau Ora (McMeeking, 2019).

Cultural-collective approaches play a crucial role in developing equitable initiatives for Māori health and wellbeing. Raerino (2017) emphasises the importance of acknowledging and utilising existing community resources in Indigenous communities. He argues that cultural factors, alongside individual and collective elements, significantly influence the behaviours and wellbeing of Indigenous peoples. This approach recognises the interconnectedness of cultural, individual, and collective aspects, initiatives can be tailored to better meet the needs of Māori communities, leading to more sustainable and culturally appropriate outcomes. Similarly, Reweti et al. (2023) promotes rights-based approaches, aligning with the United Nations Declaration of the Rights of Indigenous Peoples and Aotearoa New Zealand's Te Tiriti o Waitangi. Rights-based approaches prioritise Māori wellbeing, grounded in Māori worldview, culture, and language, and emphasise self-determination, diverse identities, aspirations, while acknowledging intergenerational realities of colonisation.

As this literature has highlighted, addressing health inequities requires a shift from Western-centric approaches to those that align with te ao Māori perspectives. Durie (2004) emphasises that health promotion efforts for Māori are more likely to be effective if they are presented in terms that align with Māori worldviews.

Gardening as physical activity

Community-based gardening initiatives are increasingly seen as crucial components in addressing various local, national, and global challenges, from poor physical health outcomes and food insecurity to environmental sustainability (Earle, 2011). While exercise is often associated with sports or fitness, physical activity can take many forms. Gardening activities such as digging, weeding, and harvesting offer substantial health and wellbeing benefits without the organisational demands typical of structured sports. Gardening and outdoor activities are increasingly recognised as effective health interventions, particularly in

addressing chronic conditions and improving nutrition outcomes (Earle, 2011; Hond et al., 2019; King et al., 2015). Beyond physical health, these activities contribute to enhanced social networks, relaxation, spirituality, creativity, and feelings of achievement (Wiles et al., 2020). They also offer practical benefits such as; food production, cost savings, improved mental and emotional wellbeing through mindfulness, and environmental sustainability by reducing organic waste, decreasing reliance on supermarkets and peak oil (Earle, 2011; Wiles et al., 2020).

Māra kai contribute to hauora

Aligning with international literature about the wellbeing benefits of gardening, māra kai represents a culturally relevant and highly effective approach to improving Māori health and wellbeing in Aotearoa New Zealand. Māra refers to the land being cultivated for the production of kai and have been central to Māori kai systems since pre-colonisation. Traditionally, māra were vital spaces that fostered connections among whānau and the wider community, promoting manaakitanga and collective approaches to food production (Phillips & Mita, 2016). Traditionally the māra required collective mahi from multiple whānau within the hapū, guided by rangatira (King et al., 2015). The hapū also served as the primary Māori social and political unit, representing the most significant scale for decision-making in te

ao Māori (Reid & Rout, 2020). The size of a māra kai reflected the mana of rangatira as leaders—the bigger the garden, the more people could be fed (Petrie, 2013).

Māra are deeply cultural spaces, allowing whānau to *"connect and reconnect with the essence and identity of being Māori,"* fostering Māori culture, knowledge, skills, and traditions (King et al., 2015, p. 17). Consequently, the revitalisation and protection of māra, along with the associated mātauranga, values, practices, and tikanga they sustain, have become crucial elements in Māori expressions of resistance, tino rangatiratanga, and mana motuhake (Petrie, 2013; Grey et al., 2020). These efforts represent both a reclamation of cultural practices and a symbolic assertion of Māori rights and identity.

Māra contribute significantly to hauora by offering a holistic approach that aligns with Māori practices, values, and worldviews, reinforcing connections with Papatūānuku, atua, ancestors, and kinship ties (King et al., 2015; Moeke-Pickering et al., 2015; Roskrug, 2020). As a strategy for improving health and wellbeing, māra kai represents more than just spaces for food production, allowing Māori communities to define and pursue their own health goals through revitalising traditional practices (McKerchar et al., 2015). They provide a culturally resonant environment that addresses all dimensions of Te Whare Tapa Whā (Durie, 1985). Taha tinana is addressed through physical gardening activities, taha hinengaro by offering spaces for relaxation and connection with nature, taha whānau is addressed through community engagement and intergenerational knowledge transfer, and taha wairua is via connection with the land and traditional practices. Taiapa (2022, p. 48), provides a range of examples of māra kai and community gardens on marae which are successfully providing health benefits for whānau. Taiapa (2022) reports increased community connection and whakawhanaungatanga, enhanced opportunities for people to grow and access healthy foods, engage in physical activities, learn new skills and reconnect with whenua.

Māra kai contribute significantly to food sovereignty, cultural revitalisation, and community resilience. As Taiapa (2022, p. 49) emphasises, *"The ultimate vision for the māra kai is to reduce reliance on dominant models of food production from the likes of supermarkets, and to focus on building food sovereignty through stimulating local food*

production." This quote tells us how māra go beyond food procurement and distribution. They also provide opportunities for connecting people to te ao Māori values and practices such as whanaungatanga, kaitiakitanga, whakapapa, and manaakitanga (Phillips and Mita, 2016). They offer an effective, ground-up strategy for families and communities to increase their access to culturally appropriate and ecologically produced fresh fruit and vegetables (Moeke-Pickering et al., 2015). The potential of māra kai as a health intervention is further underscored by Hond et al. (2019, p. 44), who notes that, *"Importantly, hands-on collective activity with shared decision-making, which is characteristic of māra, fosters social cohesion and collective efficacy. Overall our findings indicate that māra are land-centred community development initiatives that fit within the parameters of Māori health promotion and have much potential to contribute to achievement of Māori health promotion outcomes"* (Hond et al., 2019, p. 44).

By embracing māra as a health intervention, it is possible to advance more holistic, culturally attuned approaches to improving Māori health and wellbeing. These approaches are firmly rooted in the principles of self-determination and equity, providing a pathway to address health disparities while reinforcing cultural connections and fostering community resilience (Phillips & Mita, 2016). Māra offer an opportunity to address health issues in a way that resonates deeply with Māori values and traditions, empowering communities to take control of their own health outcomes through traditional practices and knowledge.

Conclusion

This literature review underscores the critical importance of developing health and wellbeing initiatives for Māori that are deeply rooted in te ao Māori and driven by whānau values and aspirations. The evidence shows that approaches fostering a decolonising culturally responsive, strengths-based framework, which enhance whānau self-determination, are most likely to be effective in reducing health and wellbeing inequities. Community-based food initiatives centred around māra emerge as powerful examples of such an approach, playing a pivotal role in connecting people to values and practices such as whanaungatanga, kaitiakitanga, whakapapa, and manaakitanga (Phillips & Mita, 2016). Embracing the

transformative impact of Whānau Ora and whānau-centred approaches is crucial for future initiatives aimed at improving Māori health and wellbeing.

This literature review highlights the limitations of health strategies rooted in individualistic concepts, which have fallen short in addressing the typically collective nature of Māori whānau and hapū. Looking forward, the path to effectively addressing health disparities and promoting wellbeing for Māori lies in developing initiatives that are grounded in te ao Māori worldviews, responsive to whānau aspirations, and protective of Māori tino rangatiratanga.





Methodology and Evaluation Design

This section provides an outline of the methodological approach to this research. For further information on the evaluation methodology, including ethical considerations, data collection and analysis, please refer to Appendix 2.

This evaluation is primarily qualitative in nature and conducted through a kaupapa Māori approach. There were three phases in the evaluation process:

Phase One: Engage and Learn

Evaluators engaged in interviews with marae champions through different stages of the funding period, dependent on availability and preference of whānau. Interview schedules were designed in collaboration with Ngāti Rangi – Ngā Waihua o Paerangi. Ethical procedures were followed (see Appendix 2). Milestone reports and contractual documents were reviewed.

Phase Two: Analyse and Check

A short evaluation framework and findings section was developed out of the analysis of the first interviews. Three case studies were developed from interviews that were held later in the funding period.

Phase Three: Outcomes Analysis and Summary

Outcomes and key themes were analysed against the Sport NZ Pou. A framework was created to visualise the progress and anticipated outcomes for the continuation of Ka Ora te Whenua, Ka Ora te Whānau. This is seen in Table 2: Impacts for whānau at each stage of māra development.

Analysis of first interviews

Two wānanga were held for Ka Ora te Whenua, Ka Ora te Whānau throughout the funding period. Their purpose was for marae champions and any interested whānau to visit the four proposed māra sites and to share ideas, motivation, and resources. This section highlights the themes that emerged from interviews that were held with four marae champions in the first Ka Ora te Whenua, Ka Ora te Whānau wānanga of December 2023.

Given the misalignment between the funding timing and the growing season, the aim for the first wānanga served as a collaborative planning wānanga. The following discussion highlights the themes of aspiration for these māra, the anticipated impacts on physical activity and wellbeing, and the potential challenges identified by marae champions. These preliminary insights provide a foundation for understanding the project's goals and expectations, while acknowledging that the actual implementation and cultivation phases are yet to come.

Overall, the marae champions held overwhelmingly positive aspirations for their māra projects. While acknowledging the

primary function of māra in producing kai, they emphasised benefits, outcomes, and impacts extending far beyond food production. The following themes emerged from the analysis of interviews with marae champions and will be explored in greater detail below.

- Māra kai are a space for connection
- Increasing dependence on te taiao while reducing reliance on the system
- Symbols of rangatiratanga and mana whenua
- Intergenerational transmission of mātauranga Māori
- Enhancing hauora by aligning with Te Whare Tapa Whā Māori health model
- Anticipated barriers

Although separated into broad themes, the outcomes and impacts of the māra are inextricably connected, providing insight into the depth and breadth of the significance of māra to the whānau of these marae.

Māra kai are a space for connection

Interviews with marae champions revealed that māra are seen as vital spaces for fostering connections to tūpuna mātauranga, the whenua, and whānau. One marae champion emphasised that this kaupapa was fundamentally about manaakitanga, and bringing people together. They want to make sure that their marae will be able to have the same experience that they had, growing up with kai all year round. Another marae champion saw the māra project as a way *"to build up our whānau"*. They identified opportunities to show manaakitanga by providing for manuhiri and to cater for any hui at their marae.

The marae champions expressed their vision for these marae-based māra to be maintained and managed on a larger scale than māra kai at home. This perspective promoted a collective approach while allowing whānau without home gardens to *"be able to receive food from this māra all year round."* The māra are seen as connecting to memories of ancestors and previous generations, echoing a time *"when there was always kai in the garden."* The māra are therefore seen as a space for connecting to the past while serving as a means to strengthen community bonds in the present and provide for whānau in the future.

One marae champion further highlighted the benefits of social connection that they anticipated from the māra, *"It will take a lot of us as a whānau to do the upkeep and keep it running, definitely bringing us closer together, out in nature, beautiful scenery, it's good for the mental health, it's good for the body."* This perspective underscores the holistic benefits of the māra, encompassing interconnected social, mental, and physical wellbeing.

Increasing dependence on te taiao while reducing reliance on the system

A key aspiration for the māra projects is addressing the rising cost of living and concerns about the ability of whānau to manage escalating food expenses. Coming together as a whānau to *"mahi tahi to provide kai for each other"* is seen as an efficient and empowering response to increased costs. As noted by one marae champion, *"With the cost of living that*

we're in now, we know that some families are struggling. It's not just about being able to provide for the whānau within the marae, but being able to provide kai for the community as well, as a village." Self-determination and choice over where their kai is coming from were seen as a key benefit of the māra.

In addition to the increased cost of living, some whānau expressed concerns that the current government's trajectory is making it more challenging for Māori to live as Māori and encroaching on rights that were guaranteed under Te Tiriti o Waitangi. This includes the ability for Māori to live on their own whenua as they choose. The perception is that the government's direction, along with potential future disruptions like extreme climatic events or another pandemic, will only exacerbate the difficulties and costs for those already struggling. Māra kai are part of a broader movement aimed at helping whānau return home, become more self-sufficient, and resilient, thereby reducing dependence on the system. When asked about the role these māra play in this movement, one marae champion emphasised that these māra are seen as *"making a start"* on the journey towards greater self-sufficiency and resilience. The focus is first on the marae, and getting it ready, *"for whenever that time comes when we need to return back to our lands."* This is connected to aspirations of tino rangatiratanga, and enhancing self-determination and choice over kai, which leads to self-determination in other areas of life.

"It's preparing for something bigger. If there's a cyclone, if COVID-19 hits again, we will survive. There's plenty of room down there to put tiny homes. The majority of our whānau are hunters, we've got a base which is our marae, plenty of room to sleep if need be, a māra kai, heaps of goats and pigs just down the hill, eel, tuna. Just going back to basics, going back to something good."

(Marae champion)

Symbols of rangatiratanga and mana whenua

A prominent theme that emerged from the preliminary interviews was the aspiration to uphold Ngāti Rangitanga and adhere to the

strategic plan of 'keeping the land, living on the land, and looking after the land' through māra. Marae champions were confident that Ka Ora te Whenua, Ka Ora te Whānau is an extremely beneficial kaupapa for their iwi, because it aligns with their identity and aspirations for unifying their whānau. As one participant stated, the māra aligned with their identity, *"Because we are a marae and we feed people. We are a land-based people, we are surrounded by whānau who work with the land."* There was great pride in this sentiment, and the māra are seen as symbolic of their mana whenua. This was echoed by another marae champion who highlighted that *"what better way for Māori to help Māori than on their own whenua. Providing for themselves, no chemicals and poisons. I think we're all stronger as one when we're united as one on our land. And I think that if we're not utilising that land, then it's under threat, so start using it for what it's there for aye, to provide for us."* This perspective underscores the deep historical ties to whenua and the concept of ahi kā.

The māra projects are seen as part of a broader movement towards asserting tino rangatiratanga.

"I can see a lot of our people returning to their marae. I can see a lot of them returning home and living there. Because the system was never designed for Māori, it never was. So, we need to start tapping back into that sort of lifestyle."

(Marae champion)

Through these māra projects, whānau are actively working towards reclaiming their autonomy and self-determination, strengthening their connection to the whenua, and building a more resilient future for their mokopuna. A self-sufficient, sustainable lifestyle was an attractive and aspirational future for all who were interviewed. This was closely related to rangatiratanga and self-determination. It was important for marae champions to be freely exerting rangatiratanga over their whenua and determining their own food system. One marae champion looked forward to the māra contributing to their ability to be *"Self-sufficient, being less reliant on the system, having healthier options, and just abundance, all of it being readily available when needed"*.

"It means we can express our rangatiratanga. It might just be one or two items that we don't have to get from the shop, but that's still one or two items. To actually become off-grid is the ultimate focus. All of those services that we are currently reliant upon to not be reliant on them. It's a way of sticking it to them."

(Marae champion)

Intergenerational transmission of mātauranga Māori

All of the interviewed participants saw these māra as a space to learn and grow from, sharing and passing on mātauranga Māori, pūrākau, whakataukī and tikanga. As one marae champion discussed, *"I can see all of our babies benefitting from our māra, flourishing from that mātauranga."* For one marae, the nearby kohanga, kura kaupapa and health centre are anticipated to facilitate a rich exchange of mātauranga between and within generations, and strengthen community support systems. Moreover, the māra will provide opportunities for hands-on learning experiences for students from the kura kaupapa and kohanga, further emphasising their role as spaces for sharing mātauranga.

One marae champion articulated: *"I think the benefits are going to be huge. The passing on of knowledge will be a benefit, the sharing of food, kaore e kore te mahi tahi o te tuakana me te teina."* This statement underscores the holistic nature of the anticipated benefits, encompassing the transfer of knowledge and also the strengthening of cultural practices, intergenerational relationships, and community bonds through shared experiences in the māra.

Enhancing hauora by aligning with Te Whare Tapa Whā

The māra are expected to make significant contributions to the hauora of whānau connected to the marae, whether they directly engage in the māra or not. Contributions to hauora include all four dimensions of Sir Mason Durie's Te Whare Tapa Whā, discussed below.

Te Taha Tinana - The māra are anticipated to enhance physical health through increased

physical activity and improved nutrition. Common statements included, *"I can see that it would be good for us physically."* The physical demands of gardening, including weeding, harvesting, digging and walking out and around the māra and the orchards, are expected to contribute to improved fitness levels. As one marae champion notes, *"Gardening, you know, it can be full on just being out in the garden, it's a lifestyle change and it's also the healthy option."* Additionally, the increased availability of fresh, nutritious vegetables was identified as beneficial for whānau.

Te Taha Hinengaro - The māra are expected to positively impact mental and emotional wellbeing by providing a space for relaxation and stress relief. One marae champion highlights this aspect: *"A lot of people are talking about wellbeing, like when you're not feeling good you can go out into the garden and draw inspiration from there. There's also the other side that no one really talked about, that when you are feeling good, it's even better."* The māra offer a retreat from daily stresses, allowing whānau to *"ground yourself, get yourself re-energised"*.

Te Taha Whānau - The communal nature of the māra is anticipated to strengthen social bonds and family connections. One of the marae champions emphasised this point, *"The more whānau who are involved, getting out in the māra kai together, just being able to do that, you're actually pulling yourself right away from the hustle and bustle of the day."* This shared activity is expected to foster a sense of community and, as one participant described, a vehicle to *"bring us back together again"*.

Te Taha Wairua - The māra are also expected to contribute to spiritual wellbeing by connecting whānau to the whenua and traditional kai practices, *"This is for Māori to ground ourselves, eat well, doesn't cost anything to eat well, without having to pull money out of your pocket."* This quote highlights that strengthening cultural identity and spiritual wellbeing doesn't have to cost money, which in itself can relieve stress and can contribute towards hauora.

"I suppose the bottom line is 'ka ora te whenua, ka ora te tangata.' If the land is well, then, we will be well."

(Marae champion)

Anticipated barriers

When asked about potential barriers to the implementation and success of this kaupapa, marae champions expressed overwhelming optimism. One stated, *"I don't see any barriers; I see a lot of prosperity in it."* This positive outlook suggests that the community views any obstacles as challenges that they can adapt to and manage, rather than insurmountable barriers.

Whānau identified several environmental factors that could pose challenges, including a shorter growing season, cold temperatures in winter, and wind exposure, *"We have a shorter season, it gets a lot colder than in other areas, there's a lot of wind up there."* Pests such as goats, possums, and rabbits were acknowledged as potential challenges, *"a little bit of a problem, not a big one."* Some even viewed these animals as a potential kai to have alongside their vegetables from the māra, again reflecting an adaptable and resourceful approach.

Another of the potential challenges included navigating whānau involvement. Marae champions acknowledged the need for effective communication, proper planning, and sufficient whānau contribution, whilst managing the diversity of ideas being put forward. One in particular mentioned that at this time, they were yet to organise roles and responsibilities for the daily ongoing mahi māra, and *"trying to incorporate 100 different ideas into one garden."* They highlighted that it could be difficult to get the daily garden tasks done without a clear roster or system. Another marae that was slightly more isolated mentioned their challenge around whānau involvement was *"that we don't really have a 24-hour person around"*.

Summary

Qualitative analysis of the initial interviews for the 'Ka Ora te Whenua, Ka Ora te Whānau' project highlights how whānau aspirations are multifaceted and deeply rooted in te ao Māori values and practices. Marae champions expressed overwhelmingly positive aspirations for their māra projects, emphasising that the benefits extend far beyond food production and are expected to contribute to all four

dimensions of Te Whare Tapa Whā. Some potential challenges were identified, such as environmental factors and organising whānau involvement, roles and responsibilities. Overall, the marae champions are optimistic, and their problem-solving attitude suggests that these issues are viewed as opportunities for growth and adaptation rather than insurmountable barriers to their success.





Case Study 1

Tuhi Ariki Marae

Tuhi Ariki Marae has embraced Ka Ora te Whenua, Ka Ora te Whānau with enthusiasm and determination. Despite the initial funding delays, since receiving the funding the marae has made significant progress in establishing their māra kai.

Whanaunga Edna Hansen and Robert Harawira are the marae champions for Tuhi Ariki, and are positive about their progress. At the time of the interview, they reported that, *"At the moment it's going really well. Since receiving funding we've been able to swing into action, we've put up a couple of fences and gathered a lot of sundries and equipment for the māra."*

From the beginning, Tuhi Ariki whānau have had a very thorough plan for their māra, centred on values of kotahitanga, manaakitanga, and whanaungatanga. They identified nine steps to developing their māra kai:

- 01** Karanga ki te whānau. Call for help, encourage involvement etc.
- 02** Determine where to build.
- 03** Design. Canvas for ideas. Mark out and style.
- 04** Secure. Fence from pests.
- 05** Build. More whānau involvement.
- 06** Plant, sow and seed.
- 07** Maintenance.
- 08** Harvest.
- 09** Share.

At the time of evaluation, they were up to step number six as they had planted their first plants in the hot house. They have erected fences to protect the māra and fruit trees from pests such as goats, rabbits and possums, and acquired the necessary equipment and supplies. They have also had a day with Ruapehu WorX identifying and clearing the orchard site, as well as constructing the hot house. That day was *"like a giant leap for us, as we've been chugging along slowly. The pūtea took a little while to come through, but once it did, we were away"*. While some of their plans have changed along the way, they are positive about their strategic plan and how *"it's actually happening, and you can see it all coming together"*. As Edna described, *"Especially with the hot house, that's where I imagined it would be, facing that way, it's all coming together. Little steps, but you can see the big improvement already. We're on the home stretch"*.

The aspirations of Tuhi Ariki Marae are for whānau to be self-sufficient, connected and thriving. Plans that are coming to fruition include having a dedicated whānau member for the herb garden. The aim of this is to benefit the marae garden, and the flavours of the kai that they can produce for hākari, hui, and other events. Additionally, Edna emphasised that they are dedicated to providing fresh produce for whānau who are struggling with rising food costs and creating a communal garden space for extended whānau. She emphasised the project's importance in the current economic climate:

"Just being able to provide food for those that can't afford to go buy all these veges and all that. We're all gardeners, and we've all got our own gardens, but this is going to be a communal garden, for the whānau and our extended whānau. The need to provide is even more crucial around this time, the cost of living, technical recession. We've got to look at getting ourselves self-sufficient, less reliant on the system and more on our backyard." (Edna Hansen, marae champion for Tuhi Ariki)

Tuhi Ariki Marae has made significant progress and faced minimal challenges. The timing of funding was a primary issue, with the delayed arrival of funds resulting in a shortened growing season, *"Half the blimmen season was gone."* This setback, while not wasting resources, did impact the initial momentum and excitement surrounding the project.

"We would have loved the funding a bit earlier, but that's ka pai, it is what it is. We only have a very limited season. The main thing was we got the pūtea without any hassle, we just submitted our invoice, and we were good to go. We look forward to growing next season." (Robert Harawira)

A key learning has been the importance of decisive action, while being adaptable to changing plans and conditions along the way. Robert reflects, *"What I've learned is you can't sit around too much waiting for people to make decisions, you've just got to get into it. You've got to try and find a happy spot. Because I was trying to involve the whānau as much as I could, asking 'shall we do this, shall we do that'. But I think it's best to have just gone off and done it and call them in to help."* This realisation came from trying to involve whānau

in every decision, which led to delays and complications. The marae has had to balance inclusive decision-making with the need for progress. Coordinating volunteer labour has also required consideration, as the champion observed, *"Everyone has jobs, you can't expect people to drop everything and come here."* However, they are still happy with their progress and the whānau who have been involved are positive and supportive of the kaupapa.

Tuhi Ariki Marae has viewed these challenges as opportunities for growth and learning. They are already seeing physical and social wellbeing benefits, with more anticipated. The māra project naturally incorporates physical activity, with tasks like ground preparation providing exercise opportunities for participants, *"There will be plenty of physical stuff, like prepping the ground and all that is going to come."* Social cohesion and connection are already seen in *"having that whakawhanaungatanga with*

the whānau." Interest in the māra is anticipated to grow more in the future, as the marae champion stated:

"It's just about getting people involved and getting together. Trying to get people back together, the family, just bring them in and help with it and that hasn't really been a challenge yet because everybody has been coming." (Robert Harawira)

Tuhi Ariki Marae has set ambitious goals for their māra project. As they expand, they aim to establish an orchard and a berry garden. Edna's enthusiasm for the future is evident, *"I'm looking forward to seeing the berry house, and our babies enjoying the peas and all of that out there."* This vision not only encompasses the physical growth of the māra but also anticipates the hauora benefits and nourishment it will bring to the tamariki, highlighting the intergenerational benefits of the project.





Case Study 2

Maungārongo Marae

For this case study, Te Hiiringa Mareikura, one of the two marae champions for Maungārongo, has shared his insights on the journey of developing their māra kai. His reflections offer valuable perspectives on the progress made, challenges encountered, and aspirations for the future of their māra.

In addition to his marae champion role, Te Hiiringa is the team lead for Pae Whakahaumarū, also known as Ruapehu WorX. They were contracted for some of the mahi in constructing and developing the māra, including clearing land, building greenhouses, and planting trees.

Te Hiiringa's role as marae champion involved planning, implementing, and presenting the māra projects to the programme coordinators. He described the core aim of their māra, *"The funding given to us is to enable the marae in our rohe to grow their own kai, to grow their own māra, and hopefully become self-sufficient, being able to feed ourselves. It's about sustainability, feeding our own kaupapa, having kai for our own hui and stuff."* Maungārongo has made significant strides in establishing their māra kai, including clearing land, building a raised garden bed and planning where the greenhouse is going to go.

"We planted native rākau around the edge to act as a barrier because it's in a wind tunnel there. It's just gale-force winds all the time. Auntie Aroha's idea was to plant the natives around as protection. So, in a few years' time, once they are well established, hopefully they can block out the wind a bit." (Te Hiiringa Mareikura)

The project has already fostered collaboration within the community. Maungārongo has worked with local suppliers like MyNoke for compost and vermicast. They have also engaged with the neighbouring Kura Kaupapa Māori o Ngāti Rangi, involving students in planting and sharing mātauranga about native trees. Te Hiiringa discussed this collaboration, *"When we went there, we actually had the help of the Kura Kaupapa Māori o Ngāti Rangi, they're the neighbours to this māra kai. Their māra kai is in the fields that they play in, which is right next to where our māra kai is going. So, we had a lot of help from them, they helped us plant the native trees, and we taught them a few things about planting"*.

The māra kai project at Maungārongo has not been without its challenges. Difficulties were identified in being the main point of call for whānau, while coordinating a range of ideas and ensuring collective decision-making, *"It's actually hard mahi on your own. You need a lot of support internally from your whānau, for uri of that marae to get it going because*

there are many opinions, many different ideas that people have across the board. You sort of have to have a collective approach to building that māra. And it's got to benefit everyone and everyone has to have a say in it." Streamlining of the communication channels was identified as a way to have run the project more smoothly.

"Ruapehu WorX was initially the ones in charge of the funding, and then it got shifted over to Pae Whakahā, if Pae Whakahā had taken it up from the get-go, the rollout of the funding could have been a bit faster. And have that funding managed under one Pae from start to finish. I think that it could have been more streamlined." (Te Hiiringa Mareikura)

Another challenge has been the timing of the project. Due to funding delays and seasonal constraints, Maungārongo has had to postpone planting until the next growing season. Te Hiiringa explains: *"Coming into winter, it's no good to put anything down right now at this point. So, we're sort of in the building phases. Building a solid foundation for us to build upon as months go by."* Looking ahead, Maungārongo plans to begin planting in late September or early October, with the first harvest expected early in the following year. It was noted, *"I think Auntie Aroha was mentioning she wanted to get some kai in late September, maybe early October coming into spring. I'm not sure when we'll have our first kai out of our māra. All going well, January next year"*.

Part of Te Hiiringa's interest in māra comes from his mother. His memories of māra have a significant influence on what he wants the impact of this māra to be, *"My mother's been a gardener, a green thumb since I was young as. I was raised doing māra kai and they're always watering the gardens and stuff late at night, early in the morning. And what I want the impacts to be are those same teachings and principles, is that we don't always have to go to the supermarkets to get our kai"*.

The aspiration for the māra kai at Maungārongo is to reflect a broader movement towards food sovereignty and reconnecting with tūpuna mātauranga and traditional kai practices. Te Hiiringa passionately explains: *"We can grow our own kai, we can be self-sustainable and we can provide for ourselves. We don't always got to rely on supermarkets. And majorly going back to kai sovereignty and stuff, being in control of what we eat."* They further elaborate

on the importance of this self-sufficiency: *"I think it's really showing our rangatiratanga in terms of how we are as a people. And standing upon that, realising that we've got the rangatiratanga to fulfil ourselves in the māra space, going out to hī ika and stuff, gathering. Just going back to the ways of old".*

Initially, Te Hiiringa was surprised by Sport NZ's involvement in funding a gardening project. However, he recognises the physical benefits inherent in creating and maintaining a māra: *"Overturning the soil, you've got a shovel, you've got a spade and you're digging it in. You're physically doing the mahi, getting your hands dirty. There are a lot of physical parts to building māra, depending on what you're building. Could be a greenhouse, it could be a raised garden bed, or a no-dig garden bed. All of those aspects involve physical activity."* He highlighted that māra contributes to all aspects of hauora, including *"eating better and living healthier"*.

Ka Ora te Whenua, Ka Ora te Whānau has fostered positive relationships between the marae, Sport NZ, Ngāti Rangi, and Ruapehu WorX. From his perspective as the team lead at Pae Whakahaumarū, Te Hiiringa notes that these relationships have been *"pretty smooth"* and that *"the māra champions are easy to get along with"*.

Due to the success of the two wānanga that were held, ideas for the future development of Ka Ora te Whenua, Ka Ora te Whānau included more wānanga throughout the funding period as māra are being developed.

"Just getting everyone together from all the different marae and feeding off that energy collectively. It's obviously up to the marae themselves to put the tono out to other people to come and help. But working bees and going along to the different marae and helping them out to gain ideas and see what they've done." (Te Hiiringa Mareikura)

Overall, Ka Ora te Whenua, Ka Ora te Whānau at Maungārongo Marae represents a significant step towards self-sufficiency, community engagement, and the revitalisation of traditional practices and tūpuna mātauranga. Despite facing challenges in coordination and timing, the marae has made substantial progress in establishing their māra kai, and they remain positive about future development, ready for the next growing season.

"We're not reinventing the wheel, we're just sort of letting the wheel flow. It'll do us a lot of good if we go back to the ways of old, plant our own kai and just be self-sustainable, as our old people were."

(Te Hiiringa Mareikura, marae champion for Maungārongo)





Case Study 3

Tirorangi Marae

Tirorangi Marae, under the guidance of marae champion Goldie Akapita, has also embarked on Ka Ora te Whenua, Ka Ora te Whānau. Goldie's role is to communicate, coordinate, and implement the marae māra plan.

This case study explores the progress, challenges, and aspirations of Tiorangi Marae in developing their māra kai and working towards a sustainable future for their community. She describes their vision for the māra, *"Tiorangi wants to provide a future sanctuary for our people. Given the current political climate nationally, internationally, globally, we fear for the wellbeing of our people and we want to make sure that there is a big house here for them. That there is food, that there is shelter, that there is water."* This vision extends beyond mere sustenance and expands into aspirations of self-determination and community engagement.

"For us, the māra is an extension of the marae kitchen. To not only provide the meals on the marae, but to engage our people who are living around the marae, to empower and develop their relationship with the whenua." (Goldie Akapita)

While the physical work is still in progress, Tiorangi Marae has made significant strides in planning and preparation. They have collaborated with Ruapehu WorX to implement their māra plan and engaged with builders for greenhouse construction. A relationship has been developed with Healthy Families Whanganui to organise resources, such as seeds and plants for their orchard. They've already started collecting eggshells, seeds and other resources, as they create a self-sustaining, "closed-loop" approach to their māra. They have already planned how to incorporate 'reduce, reuse, recycle' into their kaitiakitanga approach, *"Half the rubbish that comes through the front door, we've just got to stop. We've started using soap rather than the hand sanitiser stuff because of the plastics. More importantly, the kai that comes in, it's a lot of processed kai. We don't have our kōura on the table anymore, so yeah, it's bigger than just the māra for us. It's bringing back that way of life."* This quote also acknowledges how these māra are central to longer-term aspirations of self-determination and tino rangatiratanga.

Goldie acknowledges the timing challenges that came with a delay in funding: *"It's the timing of the season as well, we've missed pre-season, but that's okay. The seasons always come around again."* The funding delay has allowed for more thorough planning, particularly in areas of sustainability and waste

reduction.

A key focus for Tiorangi Marae is passing on traditional kai values and practices to younger generations. The importance of this was noted, *"That's why this māra would be so important because it's about more than just kai. It's about those food systems and reducing the reliance and the dependence on takeaways."* Driven by concerns about economic challenges for the next generation, they want to inspire younger people with traditional food values they grew up with. Part of this plan includes using the māra to teach tamariki and young mothers about kai processing, preservation, and storage techniques, aiming to instil an appreciation for homegrown produce and traditional practices. They hope to share healthier, cheaper ways to eat and feed whānau, inspiring new habits and skills. As Goldie notes, *"If you're growing your own, you're going to appreciate it just that wee bit more"*.

Tiorangi Marae promotes kaitiakitanga by taking a collaborative approach to their māra, envisioning shared responsibility of mahi māra among whānau members. As Goldie explains, *"Families could have their own little plots to look after, that we could share. We could have māra kai garden days."* They are mindful of potential challenges, such as ensuring the workload doesn't fall on just a few individuals and managing the distribution of māra produce. To address these potential challenges, innovative solutions are being considered, like a kai cupboard or a community-based distribution system.

Tiorangi Marae is working with a neighbouring marae that lacks the nearby whānau to establish their own māra. They often share resources and have established that this māra will service both marae. As Goldie explains, *"It wasn't said that it had to be this way, but for us, we met with our other marae and we said to them, 'Do you want to do the māra kai, or shall we do it?' And they were like, 'No, you guys do it.' So, the māra kai is also for them."* This sharing between whānau is also evidence of practising manaakitanga, a foundational value of Māori food systems.

The māra are also being seen as an opportunity to revitalise cultural practices and share mātauranga. It was highlighted in the interview that in their community, there is a growing

recognition of Tai-O-Rongo⁴ and traditions such as celebrating the rising of Puanga and Matariki. Goldie sees this opportunity as a *"gold mine at the end of the tunnel for the younger generation,"* providing a tangible connection to traditional knowledge and practices. It was seen that, *"With our family going through the Tai-o-Rongo, the stars, the whetū Puanga, they're now bringing home the importance of Ranginui and all of that. And with these ones hearing that and then seeing that, there's more of a knowledge gap closure, I'm hoping."* An example of this cultural revitalisation is the increasing popularity of Māori potatoes for ceremonial use. It was noted, *"Every time they have their thanksgiving for the stars, they can ask, 'Auntie can we grab some, just a handful to give back.' And so that's another thing we'll be doing here. We do the Puanga here".*

While the project has faced challenges in timing and resource management, Goldie expressed enthusiasm for the future, *"We're just really looking forward to seeing all these plans come to fruition ... some of the plans that have been put forward to us are just really awesome. And it's exciting."* The māra project at Tirorangi Marae represents more than just a garden. It's a holistic approach to community wellbeing, an opportunity to revitalise culture and mātauranga, and a pathway towards living sustainably on their own whenua.

"We just want the māra to be a place where you just come and do your thing. You don't need permission, or you don't need to wait till someone's home. You just bring your shovel. Bring your fork. You can see a weed, you just deal with it. Weed your garden every day."

(Goldie Akapita, marae champion for Tirorangi Marae)

"We are whenua people out here, majority are farmers and growers, and it just makes sense that the marae should have that feature (the māra) as a part of our identity, to feed our people both in the wharekai and in their homes."

(Goldie Akapita, marae champion for Tirorangi Marae)

⁴ Tai-o-Rongo is a wānanga and place-based kaupapa Māori programme led by Che Wilson, an uri o Ngāti Rangi. This programme is aimed at reviving the systems, practices and ceremonies linked to this mātauranga around tūāhu (rocks) at Tohunga (an ancient observation point and a natural observatory), including a star constellation in the ground aligned with Māhutonga (the Southern Cross). These tūāhu are used to read the weather and make weather predictions for the season and the year ahead.



Analysis of outcomes

across the Ka Ora te Whenua, Ka Ora te Whānau investment

This section discusses the key themes related to the outcomes of the Ka Ora te Whenua, Ka Ora te Whānau investment, across the four marae that were funded for a māra kai. This analysis demonstrates how Ka Ora te Whenua, Ka Ora te Whānau has achieved the aspirations of the Hawaiki Hou fund.

Ka Ora te Whenua, Ka Ora te Whānau has undoubtedly contributed positively to whānau in the Ngāti Rangi rohe. Overall, the project has provided whānau with valuable learning experiences and contributed significantly to various aspects of hauora, fostering holistic wellbeing aligned with Māori values and traditions. The marae champions see these projects as part of a broader movement towards greater self-sufficiency, cultural revitalisation, and community resilience, reflecting literature that identifies māra as a symbolic expression of tino rangatiratanga, and mana motuhake (Petrie, 2013).

The collective approach of the Ka Ora te Whenua, Ka Ora te Whānau aligns with the recommendations in the literature to prioritise whānau-centred, strengths-based approaches and strategies to improving Māori wellbeing (McMeeking, 2019). Additionally, these māra kai are embracing cultural-collective approaches to Māori health and wellbeing and utilising existing resources within the community (Raerino, 2017). As interviews and case studies demonstrated, māra kai are seen by the marae champions as part of the revival of traditional hapū food systems, enhancing self-determination and enabling more effective distribution of nutritious kai within the community.

The māra are viewed as spaces for sharing and passing on mātauranga Māori, pūrākau, whakataukī, and tikanga, facilitating intergenerational knowledge transfer. They are seen as symbols of self-determination and reclamation of whenua, aligning with the Ngāti Rangi strategic plan of *“keeping the land, living on the land, and looking after the land.”* In addition, these māra are seen as a response to the rising cost of living, providing a more efficient and empowering way to manage food expenses and enhance self-determination over access to kai. The māra are also viewed as a means of reclaiming and sharing memories and mātauranga from previous generations (Taiapa, 2022).

The marae involved in the Ka Ora te Whenua, Ka Ora te Whānau initiative are achieving diverse impacts across several key themes: whānau, kaitiakitanga, mātauranga, rangatiratanga, and hauora. The impacts outlined in table 2 all contribute to hauora, addressing not only physical health but also spiritual, social, and

mental aspects of health as outlined in Te Whare Tapa Whā (Durie, 1985).

These themes are identified in Table 2. They describe three specific stages and associated impacts:

- The 'Kākano' stage
- The 'Pihinga' stage
- The 'Hua' stage.

These themes were derived from a synthesis of the literature, aspirational interviews and case studies with marae champions. The impacts of the māra kai are aligned according to these themes under three headings reflecting the time domain of the project.

In the 'Kākano' or seed stage, which involves planning and preparation, all participating marae have reported positive impacts. This stage is crucial for building foundations in community engagement, knowledge sharing, and project planning. For example, marae are strengthening whānau connections through collaborative planning sessions and developing plans around roles and responsibilities for daily mahi māra.

Two marae have progressed to the 'Pihinga' or seedling stage, where more tangible impacts are beginning to emerge. In this stage, elements of the māra are being constructed, such as hot houses, fencing, and planting their first seedlings. There is also increased physical activity as whānau members engage in gardening activities.

“A key thing for us is just getting out there, being active, moving. Moving with our mokopuna. And doing those hard jobs of making sure that things looking nice and weeded and all of that stuff.”

(Marae champion)

The third stage, 'Hua' or fruiting represents the impacts that whānau will experience once they have harvested from their māra. These impacts include the opportunity to practice manaakitanga through sharing the produce, and feeling the benefits of consuming nutritious kai.

“It’s not just about growing the kai. It’s that whole whakaaro in your head and in your heart. That what comes from Papatūānuku, it’s also about recycling, learning to recycle. If we don’t look after Papatūānuku, where are we going to grow? This is just the beginning. There’s just so many things that come off growing your own kai.”

(Project champion)

	Kākano Seed stage Planning and Preparation	Pihinga Seedling stage Planting	Hua Fruiting stage Harvesting
Whānau	Strengthening whanaungatanga through collaborative decision-making and planning (Moeke-Pickering et al., 2015).	Development of mahi tahi, collective work ethic and cooperation (Moeke-Pickering et al., 2015).	Practicing manaakitanga through distributing harvest with whānau and wider hapū (Moeke-Pickering et al., 2015).
Kaitiakitanga	Asserting stance as kaitiaki and establishing values for māra that align with kaitiakitanga (Selby et al., 2010).	Reconnection with traditional ecological knowledge and mahi māra practices through hands-on engagement with the whenua (Selby et al., 2010).	Reinforcing relationship between tāngata and Papatūānuku, being grateful for the abundance of the whenua when it is well looked after by kaitiaki (Selby et al., 2010).
Mātauranga	Revitalisation of tūpuna mātauranga and maramataka knowledge for planning the growing season (Moeke-Pickering et al., 2015).	Intergenerational sharing of mātauranga, tikanga and te reo for mahi māra (Moeke-Pickering et al., 2015).	Reviving traditional harvesting practices guided by tikanga, reo, tūpuna mātauranga and maramataka (Hond et al., 2019).
Rangatiratanga	Creating a space that allows whānau to make collective decisions about their kai system, increasing self-determination over kai sources (King et al., 2015).	Asserting mana whenua through the planting of māra and engaging in tūpuna practices, supporting whānau who want to live on their whenua (King et al., 2015).	Enhancing self-determination and self-sufficiency by increasing access to kai that whānau know the whakapapa of (Hutchings et al., 2012).
Hauora	Fostering social connection and engagement as whānau come together to plan and get excited about the māra (Hond et al., 2019).	Engaging in physical activity, experiencing mental health benefits of mahi māra, social cohesion and a space to express and practise spirituality (Taiapa, 2022).	Providing fresh, nutritious kai for whānau while fostering sense of achievement and satisfaction being able to share that kai (Hutchings et al., 2012).

Table 2: Impacts for whānau at each stage of māra development

In what ways does Ka Ora te Whenua, Ka Ora te Whānau achieve the aspirations of the Hawaiki Hou fund?

The aim of Sport NZ through this project under their Hawaiki Hou fund is to encourage movement and hauora by integrating physical activities with kaitiakitanga. Sport NZ has a 'Preferred Futures' outcomes framework which comprises five pou. This evaluation has identified how and in what ways these pou have been achieved through Ka Ora te Whenua, Ka Ora te Whānau.

Pou Tahī - Mana Taurite – A Just Society: Ka Ora te Whenua, Ka Ora te Whānau promotes equity in the food system by enabling marae to grow their own kai, providing a solution for rising living costs and food insecurity. For example, Tuhi Ariki Marae is dedicated to providing fresh produce for whānau struggling with increasing living expenses. Tīrorangi Marae has a vision of creating a "future sanctuary" for their people, demonstrating a commitment to reclaiming traditional mahi māra that were impacted through colonisation. Through these māra they are enhancing self-sufficiency and equitable access to resources, contributing to a more just food system and society for whānau Māori.

Pou Rua - Mana Tangata – Empowered Communities: Communities are empowered when they have the autonomy to determine their own outcomes and aspirations. Ka Ora te Whenua, Ka Ora te Whānau has allowed whānau to create and develop their own projects, fostering collective decision-making and encouraging whānau involvement in all aspects of the māra kai. The collaboration between Maungārongo Marae and the local Kura Kaupapa Māori is an example of strengthening community connections. Tuhi Ariki Marae is a strong example of involving whānau in decision-making processes, as their marae champions developed whānau engagement and leadership for their māra.

Pou Toru - Mana Māori – Giving Effect to the Treaty: By supporting marae-led initiatives that reconnect Māori with traditional practices and mātauranga, Ka Ora te Whenua, Ka Ora te Whānau gives effect to principles of the Treaty of Waitangi. The marae champion

from Maungārongo Marae emphasised the importance of rangatiratanga and "going back to the ways of old" in kai production and gathering. This aligns with obligations guaranteed under The Treaty of Waitangi to protect and promote Māori cultural practices and knowledge systems. Additionally, Tīrorangi Marae has focused on reviving traditional food systems and practices, reducing reliance on processed foods and reintroducing traditional kai like kōura. These are important steps in centring mātauranga Māori, preserving taonga and promoting tino rangatiratanga.

Pou Whā - Oranga Taiao/Oranga Tangata – Our Relationship with the Environment:

The māra kai projects are strengthening the relationship between tāngata and te taiao, through traditional and sustainable māra kai practices. For example, Maungārongo Marae has been planting native trees for wind protection while Tīrorangi Marae aims to create a sustainable "closed-loop" approach to their māra. Both of these examples demonstrate kaitiakitanga, fostering a deeper connection to the whenua and promoting sustainable resource management.

Pou Rima - Mauri Ora – Wellbeing: Ka Ora te Whenua, Ka Ora te Whānau contributes to hauora and holistic wellbeing by promoting physical activity through mahi māra. Hauora is also improved through increased nutrition through access to fresh produce, while fostering social connections through collective mahi māra. All four marae report anticipated benefits in physical health, social cohesion, and cultural revitalisation. The māra projects also support mental and spiritual wellbeing by reconnecting people with traditional practices and providing a space for relaxation and working with the whenua. For example, Tuhi Ariki Marae has emphasised their māra as a space providing physical sustenance as well as enhancing whakawhanaungatanga.

As these marae continue their journey with Ka Ora te Whenua, Ka Ora te Whānau, they stand as a testament to the success of whānau-driven projects developed by whānau Māori. Māra projects are fostering kaitiakitanga, enhancing hauora, enabling the sharing of mātauranga, and creating opportunities to assert rangatiratanga and mana whenua.

What have whānau learnt through participating in Ka Ora te Whenua, Ka Ora te Whānau?

01 **Adaptability and decisive action:**

Whānau learned the importance of being flexible and making decisions promptly to move projects forward.

02 **Collective decision-making:** The importance of involving whānau in the process while balancing the need for progress was highlighted across all three case studies.

03 **Planning and preparation:** It is vital that whānau have had the time to plan exactly what they want for their māra and how it could serve their whānau best.

04 **Self-sufficiency:** Whānau learned about the potential for self-sustainability and reduced reliance on external food sources, while enhancing community collaboration.

05 **Sharing the workload:** Effective distribution of the mahi for the māra is important, ensuring that it does not fall on only one or two people. This means that whānau were engaged in all stages of the māra development.

What unintended impacts/benefits occurred as a result of participating?

Based on the case studies provided, it appears that the Ka Ora te Whenua, Ka Ora te Whānau māra projects have largely progressed as anticipated. No significant unintended impacts or benefits were reported. The marae champions all described outcomes that aligned closely with their initial goals and expectations for the māra. Challenges were highlighted, particularly related to funding delays and seasonal timing. However, these were generally viewed as part of the normal process of establishing a new project.

The positive impacts of the māra are so far in line with the intended outcomes of the initiative, including increased community engagement, physical activity, and progress towards self-sufficiency. This suggests the planning and

implementation of the māra projects have been well-considered and executed. All marae champions are anticipating more positive outcomes as they develop their māra in the next growing season.

What can we learn to inform future programme/approach development?

This section provides key learnings and recommendations for the future of Ka Ora te Whenua, Ka Ora te Whānau. The lessons learned and successes achieved in the Ngāti Rangī rohe will undoubtedly inspire and inform similar projects across Aotearoa New Zealand.

Streamlined communication and funding processes to maintain project momentum and community enthusiasm and align to growing seasons.

While marae champions overall expressed positivity about Ka Ora te Whenua, Ka Ora te Whānau, some areas for improvement in the project process were highlighted. The primary concern was the delay in funding distribution, described by one participant as *"probably one of the biggest downfalls"*, and that *"the delivery of the funding was a bit drawn out."* While this delay did not result in wasted funding, it did impact the project's timeline and affected initial momentum and enthusiasm of participants. The marae champions noted that this delay may have been due to the process of developing a contract between Sport NZ and Ngā Waihua o Paerangi, or because the project transitioned from Pae Whakahaumarū/Ruapehu WōX to Pae Whakahā. It was also highlighted that barriers could have been avoided without early confusion from the marae about who they were supposed to be dealing with.

Understanding these procedural delays can help streamline funding processes in future projects to maintain momentum and excitement from the initial engagement with the community. Given the challenges faced due to funding delays and missed growing seasons, future programmes should incorporate more flexible timelines that align with natural growing cycles and establish clear communication channels from the outset. This could involve a phased funding approach, where initial funds are

released for planning and preparation, followed by subsequent releases timed with planting seasons.

Increasing inter-marae collaboration through more frequent wānanga and shared resources to enhance efficiency and collective mahi.

Another key learning was the importance of increasing collaboration through idea sharing and working bees. The suggestion was to have more frequent wānanga throughout the months, bringing together participants from different marae to collectively share energy, resources, workforces, and ideas.

Sharing connections with local resources or supporting organisations like MyNoke is also an opportunity to bulk purchase equipment, soil, seed, or other essentials, to bring down the overall cost of ongoing expenses for marae individually. Building upon and expanding relationships like this are beneficial for the future of the māra. The success of the wānanga that did occur suggests that more frequent gatherings could enhance collaboration and innovation across marae.

Develop a centralised knowledge-sharing platform to facilitate the exchange of ideas, best practices, and resources among marae.

Participants felt that developing a centralised knowledge-sharing platform or regular hui would be helpful. This could include an online forum, regular Zoom meetings, or a shared database of resources. As the experience of Tuhi Ariki Marae showed, learning from others' successes and challenges can be invaluable. This platform could also facilitate resource sharing, such as seeds or equipment, further strengthening the network of participating marae and promoting collective progress.

Balance collective decision-making with efficient progress by implementing strategies for broader community engagement and distributed responsibilities.

While maintaining the importance of whānau voice in establishing collective aspirations, future projects should streamline the decision-making process to avoid delays. As noted in the feedback, having too many people involved in decision-making can slow progress, while potentially putting too much pressure on the marae champions or certain whānau members. We recommend implementing strategies to increase community engagement and distribute responsibilities more effectively. These could include; creating a roster system where different whānau groups are responsible for specific tasks or time periods in the māra, establishing working groups focused on different aspects of the project (e.g., planting, maintenance, education, events), and organising regular community working bees that combine work with social activities to make participation more appealing. Developing a mentorship programme where experienced gardeners can guide and support less experienced whānau members could also be beneficial. These approaches can help balance the need for collective input with efficient progress, while also fostering broader community engagement and ownership of the māra kai initiatives.

Conduct an evaluation at the end of the growing season.

A follow-up evaluation is recommended for Ka Ora te Whenua, Ka Ora te Whānau after the māra kai have completed full growing cycles. This could capture the entire process from planting to harvest and distribution. It could assess how well the positive impacts of the māra kai in the 'Hua' stage (see Table 2) align with whānau aspirations. Identifying any challenges faced during the growing cycle and how these were addressed will provide valuable insights for the future of these māra, and for other similar future initiatives.

By implementing these recommendations, future iterations of Ka Ora te Whenua, Ka Ora te Whānau and similar projects can enhance their effectiveness, sustainability, and impact on participating marae and communities.



Appendix 1

**Ka Ora te Whenua, Ka Ora te
Whānau Theory of Change**

Designed to address/improve	Inputs	Activities	Outcomes	Impacts		End goals
				Tangible	Intangible	
<ul style="list-style-type: none"> Physical health and activity levels in the rohe Areas that have the opportunity to be reforested, e.g. riparian strips Mental, social and spiritual health of whānau Provide more choice and access to healthy, nutritious kai 	<p>Resources</p> <ul style="list-style-type: none"> Kaimahi from Ruapehu WorX Marae champion from each of the participating marae Whenua at marae for gardens Physical resources, wood, earthworks, compost, vermicast etc <p>Partnerships</p> <ul style="list-style-type: none"> Ngāti Rangi Sport NZ (Funding Agency) Ngā Paepae o Ngāti Rangi Local businesses and organisations that can provide equipment and resources 	<ul style="list-style-type: none"> One marae champion from each of the five paepae will coordinate a project that promotes physical activity as well as contributing to the environment. Two wānanga for whānau and marae champions to share knowledge, resources, ideas and inspiration Each māra will have one day with Ruapehu WorX for māra construction 	<p>Projects</p> <ul style="list-style-type: none"> Four māra kai will be established at four different marae. Depending on what whānau have decided upon, these māra kai may include vegetable gardens, orchards, native tree plantings, pātaka kai, chickens and/or pigs, flower gardens, berry garden, or hot houses/ greenhouses. 	<ul style="list-style-type: none"> Growing kai and rongoā Reforesting areas and riparian strips with native trees, supporting biodiversity and health of waterways Increased physical activity Increased positive social interactions Whānau engagement with marae Improved relationships within whānau 	<ul style="list-style-type: none"> Increasing knowledge of te taiao, rongoā, mātauranga Māori Improved mental wellbeing from being outdoors and doing mahi māra Enhancing kaitiakitanga Confidence and sense of achievement Social cohesion Aspirations and positive future thinking Improved spiritual wellbeing from connecting with the whenua Cultural connection and opportunities to learn and use te reo, tikanga, mātauranga Māori 	<ul style="list-style-type: none"> Increased levels of physical activity Connection to the whenua Accessibility of outdoor activities. Zero barriers to participation Equitable hauora outcomes Whānau engagement Self-sufficiency Enhanced opportunities to assert rangatiratanga



Appendix 2

Methodology

The following section describes the evaluation methodology, data analysis and ethical protocols.

Kaupapa Māori

This qualitative evaluation was informed by Kaupapa Māori Research (KMR) principles and tikanga (Smith, 2012). Kaupapa Māori research is not a prescribed set of methods, rather a way of thinking about and doing research (Smith, 2012). Ethical principles and frameworks of Western research approaches have not protected Indigenous peoples where research has typically been done ‘on’ or ‘to’ communities (Kelly, 2007; Cram et al., 2015). Therefore, it is important that KMR is undertaken ‘with’ communities and achieved with meaningful collaboration with the participants (Kelly, 2007). Such research also needs to be conducted in culturally appropriate ways - prioritising Māori cultural preferences, practices and aspirations (Bishop & Glynn, 1999). Kaupapa Māori research seeks to centre Māori realities, and undertake research that will benefit Māori communities (Smith, 2012). As a methodology, Kaupapa Māori contains a notion of action and commitment to change, and to Māori development (Pihama, 2011)

Document and literature review

The evaluation process began by reviewing the contractual documents for Ka Ora te Whenua, Ka Ora te Whānau, as well as documents by Sport NZ outlining the outcomes of the Hawaiki Hou fund. The purpose was to understand what Ka Ora te Whenua, Ka Ora te Whānau had been commissioned to achieve.

Peer-reviewed and published journal articles	21
Reports	2
Doctoral dissertations	4
Books/book chapters	4
Total	31

Table 3. List of sources

It is important to note that this report includes additional literature sources that were not part of the initial literature review. This was done to further consider and reflect on overall research findings.

Interviews

This evaluation employed a qualitative approach, consisting of semi-structured interviews with key participants from each of the four marae funded under Ka Ora te Whenua, Ka Ora te Whānau. In total, six participants agreed to be involved, and four were interviewed at two different stages of the māra project. Interviews were conducted between September 2023 and July 2024, allowing for a longitudinal perspective on the initiatives' progress and evolving aspirations.

Interviews were primarily conducted kanohi-ki-te-kanohi, otherwise over Zoom. The interviews were designed to provide:

- An opportunity for initiatives to clarify and articulate their kaupapa, mission or purpose
- A space for reflection on their impact on their community and those around them (individually, as a whānau or as a collective)
- A process for gathering and analysing outputs, outcomes and impact
- An opportunity to discuss the commissioned funding approach that they experienced with this collaboration between Ngāti Rangi and Sport NZ

All interviews were transcribed and then analysed using an inductive method. This meant; becoming familiar with the data; generating initial codes; searching for themes; reviewing themes; defining themes and finally, writing these up.

Draft case studies were developed from participant interviews. The draft case studies were sent back to participants for their review and approval.

Ethics

This evaluation followed clear ethical procedures, including informed consent and avoidance of harm. A participant information sheet and consent form were provided for all interview participants. The participation form was discussed prior to all interviews and participants were able to ask questions and have their questions answered. Written consent was also obtained by the researcher at the interview, or verbal consent was given if

the interview was being conducted over phone or Zoom. Transcribing was completed by Ihi Research, so a confidentiality agreement for a third-party transcriber was not required.

All contact and research data are considered sensitive information; therefore, Ihi Research ensures it is physically and electronically secure with industry-standard protection, including password protection on all computers from which it can be accessed. Access was limited to only the necessary personnel. At the conclusion of a research project, raw data is stored electronically for one year and then destroyed unless otherwise agreed with the participants or the clients.

Limitations

The limitations of this research were primarily influenced by the timing of the evaluation in relation to the project's implementation. Due to funding delays experienced by the marae, the evaluation was conducted before any produce had been harvested or consumed. This timing presented several challenges, including making it difficult to accurately measure or report on the tangible outcomes and impacts of the māra kai, limited the opportunity to identify and address potential challenges that might have arisen in later stages of the project, and making it hard to assess how well the marae could adapt their plans and practices in response to unforeseen challenges or changing circumstances throughout a full growing season. Ultimately, not being able to evaluate the full outcomes of these māra kai restricted the ability to compare impacts across different marae or with similar initiatives elsewhere.



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