



# COMMISSIONING TO SUPPORT HEALTHY KAI OUTCOMES FOR WHĀNAU

2022



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Every effort has been made to ensure the accuracy of this report.

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# EXECUTIVE SUMMARY

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This report explores the role kai (food) plays in the lives of whānau across Aotearoa New Zealand and how the Whānau Ora commissioning approach in Te Waipounamu has impacted the relationship whānau have with food. There are three parts to this report, an integrative literature review, a review of commissioning and four case studies.

The integrative literature review investigated the role of kai/food for Māori whānau and other Indigenous<sup>1</sup> communities. The review also sought to understand barriers that prevent whānau from making good food choices as well as solutions evident in the literature. The study also compared literature review findings with emerging successful case studies related to Te Pūtahitanga o Te Waipounamu commissioning and the role of kai in Whānau Ora. The following key findings emerged from combined analyses.

## **Conventional Food Systems (CFS) present key barriers to hauora**

- Absence of choice: Conventional food systems are monocultural and overlook Indigenous food systems
- Obesity–Poverty Paradox – easy access to poor quality food at low cost. Cost of healthy, nutritious kai a barrier
- Personal stress due to low incomes and lack of time
- Conventional food systems do little to develop Indigenous community capabilities
- Racial, deficit discourses result in stigma, shame and reduced motivation
- Whānau distrust of mainstream health professionals

## **Solutions from the literature review**

- Indigenous Food Sovereignty (IFS) is an important solution
- Intergenerational cultural knowledge and values are intertwined, and kai/food is more than just a source of nutrition
- Protection of language and culture through kai and kaitiakitanga
- Mana and manaakitanga intertwined through the role of kai
- Holistic approaches important for understanding the role of kai in hauora (spiritual, cognitive, physical and social dimensions)
- Ownership, power and control reside with whānau
- Kai is a motivator for collective capability development
- Capacity (resource) and capability (skills and knowledge) development are related to kai/food production

## **Solutions emerging from the Whānau Ora commissioning approach in Te Waipounamu**

- Māra kai and Māra rongoā
- Mahinga kai
- Food production and sales
- Wānanga
- Nutritional support
- Food distribution

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<sup>1</sup> In this report 'Indigenous' is given a capital 'I' in recognition of Native Americans, First Nations and Aboriginal peoples of long settlement and connection to specific lands.

### Commonalities across solutions

- Initiatives acknowledge and enable whānau tino rangatiratanga over hauora and the role of kai
- Initiatives are localised, drawing on local resources and networks.
- Initiatives are strengths-based
- Intergenerational collective activity
- Holistic focus
- Enabled both capability and capacity development
- Solutions enabled by a flexible commissioning environment

### Importantly an intergenerational approach informs the way in which whānau eat

- Emphasises the importance of whānau access to, and participation in, te ao Māori
- Revitalisation of traditional plants and mātauranga essential
- Intergenerational action related to kai and kaitiakitanga strengthens whānau capabilities
- Whanaungatanga increased through shared activities

Analysis has also highlighted opportunities for further research, particularly the need for longitudinal research to track hauora outcomes for whānau over time. Such research would give more insight into the enablers and barriers to whānau access and consumption of healthy kai. Continuation of kai initiatives through targeted funding is highly recommended.



# INTRODUCTION

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The purpose of this report is to explore the role kai (food) plays in the lives of whānau across Aotearoa New Zealand and how the Whānau Ora commissioning approach in Te Waipounamu has impacted the relationship whānau have with food.

Whānau Ora Commissioning as an approach is situated in the belief that whānau have the solutions to the challenges they face. The Te Waipounamu commissioning approach works on the principle of supporting whānau self-determination. The commissioning waves support whānau to invest in their own solutions in relation to the identified issues. This report examines how these initiatives have supported a changing relationship between whānau and kai in Te Waipounamu, and the impact this has had for whānau.

To better understand the role of kai in the health and wellbeing of whānau, a partnership was formed between Te Pūtahitanga o Te Waipounamu, Ministry of Health and Ihi Research. The purpose of this work is to create an evidence brief that illuminates what is happening within the current state of the food system through Te Pūtahitanga o Te Waipounamu commissioning.

**This study was guided by six research questions:**

- 1. What do we already understand about the role of kai in the complex lives of whānau and other Indigenous communities?**
- 2. What are the barriers that prevent whānau from making good food choices?**
- 3. What solutions are evident in the literature?**
- 4. What solutions have we seen emerge from the Te Pūtahitanga o Te Waipounamu Wave funding commissioning approach?**
- 5. What do these solutions have in common?**
- 6. How can an intergenerational perspective inform the way in which whānau eat?**

## APPROACH

There are three parts to this report, an integrative literature review, a review of commissioning and four case studies.

The integrative literature review<sup>2</sup> investigated the role of kai/food for Māori whānau and other Indigenous communities.

The study also drew on existing research and emerging successful case studies related to Te Pūtahitanga o Te Waipounamu commissioning and the role of kai in Whānau Ora. This report presents insights from combined analyses.

Five key principles guided the research methodology. These were:

- The importance of Māori/Indigenous worldviews
- That lived experience is at the centre of the approach and drives change, meaning participation and self-reflection is critical
- Te Tiriti base framework with a Whānau Ora approach
- Shifting power enabling Mana Motuhake
- Enabling compelling change for all in the system

## CONSIDERATIONS AND LIMITATIONS

The role of kai/food and its significance for Indigenous communities are receiving increased attention across the globe. Most of the reviewed international literature was published between 2019 - 2021. Authors have highlighted the lack of research into the role of traditional foods within indigenous communities and its connection to cultural identity, health and wellbeing (Blanchet, Batal, Johnson-Down, Johnson, Okanagan Nation Salmon Reintroduction Initiatives & Willows, 2021; Budowle, Arthur & Porter, 2019; Merriam, 2021).

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<sup>2</sup> Further information on the literature review methodology can be found in Appendix 1.

There are significant gaps in the published evidence-base and calls for future research to incorporate either self-determination or co-design principles with targeted communities (Little-wood, Canfell & Walker, 2020). Outcome data is often not reported, and it isn't clear how Indigenous communities are engaged in evaluation activities to determine evaluation criteria as well as impact. A number of authors state more needs to be done to understand the framing and outcomes of food interventions on the health and wellbeing of indigenous communities (Maudrie, Colón-Ramos, Harper, Jock & Gittelsohn, 2021; Blue Bird Jernigan, Maudrie, Nikolaus, Benally, Johnson, Teague, Mayes, Jacob & Taniguchi, 2021).

This report adds to the knowledge base related to kai/food and its contribution to the health and wellbeing of Indigenous communities. However, the initiatives reviewed in this report do not necessarily track how they impact whānau health in traditional medical ways (e.g. impact on long term non-communicable diseases such as diabetes, cardiovascular disease, stroke, gout). Longitudinal research co-designed with whānau would be needed to determine the sustainability of hauora outcomes.

The following section presents results from the integrative literature review, to address the research questions 1-3. Results highlight the role and value of kai/food and its significant relevance to Māori and other Indigenous communities. Findings also highlight key barriers that prevent whānau/Indigenous groups from making 'good'<sup>3</sup> food choices, as well as specific solutions.

***Indigenous communities face health inequities due to the enduring impacts of colonisation and structural racism.***

## BACKGROUND

Across the world, Indigenous communities face health inequities due to the enduring impacts of colonisation and structural racism (Jernigan et al., 2021; Wild et al., 2021; Shelling, 2019; Whyte, 2016; Maudrie et al., 2021; Budowle et al., 2019). As a result, Indigenous communities experience disproportionately high rates of food insecurity and subsequent adverse health outcomes. Food insecurity has been defined as "a lack of consistent access to enough food to live an active, healthy life" (United States Department of Agriculture, 2019).

***Traditional food sources have been polluted, depleted and replaced by processed, commercial foods high in starch, fat, salt and sugar.***

There are a range of systemic barriers which inhibit Indigenous communities' ability to access healthy and nutritious food (Blue Bird et al., 2021; Budowle, Arthur & Porter, 2019; Coté, 2016; Merriam, 2021; Shelling, 2019). Poverty, household deprivation and structural racism is linked to food insecurity amongst Indigenous communities as traditional food systems, knowledge, values and environments have been disrupted through settler colonisation and ongoing colonial processes. For example, traditional food sources have been polluted, depleted and replaced by processed, commercial foods high in starch, fat, salt and sugar (Bowden, 2020; Smith & Staines, 2020). State funded healthy food initiatives targeted at Indigenous peoples, have been criticised as limited in scope with monocultural aims and short-term funding cycles, omitting acknowledgement of the role of colonisation in the creation of food insecurity (Merriam, 2021). These initiatives fail to understand or address the cultural significance of food essential for Indigenous community wellbeing.

<sup>3</sup> The term 'good' is contested and must be understood within an Indigenous framework of health and wellbeing that has spiritual, social, physical and emotional dimensions.

Within Aotearoa New Zealand, successive governments have failed to honour Te Tiriti o Waitangi obligations, and this has resulted in “inequitable health status of Māori, who, on average, continue to have the poorest health status of any ethnic group in New Zealand” (Waitangi Tribunal, 2019, p. x). Child obesity rates are 1.6 times higher for Māori (aged 2–14) than the overall population (Wild et al., 2021). This ‘burden of disease’ impacts Māori as increasing rates of child obesity are linked to the prevalence of non-communicable diseases (NCDS) amongst adults (Littlewood, Canfell & Walker, 2020; Wild et al., 2021).

Despite health-focussed nutrition and lifestyle interventions being developed and implemented to improve the health of Māori whānau, many fail with little evidence of sustained change (Wild et al., 2021; Littlewood, Canfell & Walker, 2020). Food security issues therefore need to be reconceptualised within a framework of Indigenous wellbeing principles and in the context of colonisation.

***Initiatives fail to understand or address the cultural significance of food essential for Indigenous community wellbeing.***

The following section explores what is already known about the impact of nutrition and food systems on whānau health.





## THE ROLE OF KAI/ FOOD FOR MĀORI AND OTHER INDIGENOUS COMMUNITIES

Several interrelated themes emerged from analysis related to the role of kai/food. These are:

- Food sources – more than just nutrition
- Sustaining culture and language through intergenerational knowledge
- Motivator for collective capability development

### FOOD SOURCES - MORE THAN JUST NUTRITION

Indigenous food systems are the result of thousands of years of unique relationships between people and their environments and resources (Gilbert, 2016; SOWIP, 2009). The role of kai/food is part of a larger web of activities and symbiotic relationships between Indigenous groups and these environmental systems (Coté, 2016; Gilbert, 2016; SOWIP, 2009; Whyte, 2016). The value of specific foods and food procurement strategies are connected to particular landforms, waterways, habitats that have deep links to tribal identity and intergenerational knowledge (Whyte, 2016).

Traditional foods are not just a source of sustenance or nutrition. Food mediates social, political and economic relationships and structures both spatially and temporally within Indigenous communities (Shelling, 2019). As a result, they "need to be understood within a wider cultural framing that interweaves Indigenous cultural, spiritual and environmental relations" (Sowerwine, Mucioki, Sarna & Hillman, 2019, p. 3). Sustainability of tribal cultures and languages are intertwined with environments.

***"Without the land and the knowledge that comes mainly from the use of the land, we as indigenous peoples cannot survive."***

(Baer, 2002).

For Māori, food comes from the atua (gods), and tangata (people) are kaitiaki (guardians/protectors) of the environment, an obligation also descending from the atua (McKerchar et al., 2015; Bowers et al., 2009; Wham et al., 2012). In pre-European times, Māori were adept at hunting and gathering kai from their environment, as well as cultivating a wide variety of crops, often with extremely complex cultivation systems. The ngahere (forest), moana (ocean), takutai (seashore) and awa (rivers) provided year-long food supplies (McKerchar et al., 2015).

Many different tikanga and customs governed the food system, from gathering, planting, harvesting, cooking, preservation, storage and the communal distribution of foods (McKerchar et al., 2015, Shelling, 2019). These included vital mātauranga (knowledge) that sustained tribal life. Knowledge and resources linked to kai included physical places and spaces such as mahinga kai (food gathering places and practises), māra kai (Māori equivalent of market or community gardens), marae (a common space used for events, communal gatherings or food distribution), and values or concepts such as mana, manaakitanga (reciprocity of kindness, respect and humanity) and kaitiakitanga (protection of the environment) (McKerchar et al., 2015).

There are a range of whakataukī (proverbs) inspired by Māori communities' relationship to kai and how that aligns to life-long learning and wellbeing.

**'He nui ngā kai kei runga i a Moehau me he tangata koe whai mai'**

*(There is an abundance of food on Moehau if you are a person who is prepared to seek it)*

**'He kai kei aku ringa'**

*(There is food at the end of my hands)*

**'Ko ō mātou kāinga nohoanga, ko ā mātou mahinga kai, me waiho mārie mō ā mātou tamariki, mō muri iho i a mātou.'**

*(Our places of residence, cultivations and food-gathering places must still be left to us, for ourselves and our children after us).*



**'Ko ngā hau ki ētahi wāhi, ko ngā kai ki Orariki'**

*(Whatever the season or wind, food will be found  
at Orariki)*

**'Nā tō rourou, nā taku rourou, Ka ora ai te iwi'**

*(With your food basket and my food basket the  
people will thrive)*

**'Ko te kai a te rangatira he kōrero'**

*(The food of leaders is oratory)*

Whakataukī are used to transmit the values and customs, or tikanga, surrounding food practises across generations. Whakataukī reflect the extensive knowledge that Māori have of ecology and their environments and how Māori also viewed their connection with te Taiao, utilised resources, and distributed food. These complex knowledge systems, and connection with culture and the environment, must therefore be considered in any analysis of the role of kai in the complex lives of whānau.

*Mana and Manaakitanga*

Within Aotearoa, mana and manaakitanga (particularly around the provision of kai) are inextricably intertwined. A chief's ability to feed their people, to provide hospitality or manaakitanga to visitors, was essential to the maintenance and enhancing of chiefly mana (Petrie, 2006; McKerchar et al., 2015). In contemporary Māori society, the ability to provide kai for manuhiri, to show them manaakitanga, continues to be a source of pride and a reciprocal cultural obligation. Certain hapū, or marae, may be renowned for providing a certain delicacy or dish, or an abundance of food species that other tribes may not be able to gather, hunt or cultivate in their rohe.

***Manaakitanga continues  
to be a vital component of  
contemporary Māori food  
systems.***

The significance of sharing kai and its link to manaakitanga is particularly evident in important social events such as pōwhiri, tangihanga, weddings, birthdays etc. Manaakitanga continues to be a vital component of contemporary Māori food systems as it establishes tikanga for food distribution in communities. Values and customs, such as manaakitanga, are therefore a protective factor against food insecurity or inequitable allocation of resources.

Māori iwi, hapū and marae interactions have traditionally been governed through the trade and exchange of kai, land, and resources. One example of the complex food systems that existed in pre-colonial Māori society is kaihaukai, commonly practised amongst Ngāi Tahu. Although their extensive knowledge of the environment meant that a range of foods would sustain them throughout the year, some species such as tuna, tī kouka, kaura (sugar) and tītī were only harvested annually, and subsequently became highly desirable. It became common practise to migrate seasonally throughout Te Waipounamu trading, sharing, or holding seasonal feasts with kai (Williams, 2004).

There is no Māori word for food security, though the significance of kai is reflected in the complex web of interconnected cultural concepts and practices for Māori that provide resilience (Shelling, In progress). The intergenerational transmission of the knowledge, values, customs and traditions associated with Māori food systems is inextricably linked to the protection of language and culture, as well as the social, physical, spiritual and emotional wellbeing of Māori.

***Intergenerational transmission of the knowledge, values, customs and traditions associated with Māori food systems is inextricably linked to the protection of language and culture.***

### ***Sustaining culture and language through intergenerational knowledge***

The link between traditional food practices and the sustainability of Indigenous languages and cultures is referenced in the literature. Whyte (2016) cited Hoover's example of traditional weaving of fishing nets to demonstrate the interconnected nature of food harvesting, language and culture.

***"People forget, in their own culture, what you call the knot that you tied in a net. And so, a whole section of your language and culture is lost because no one is tying those nets anymore. The interrelation between men and women, when they tied nets, the relationship between adults or elders and young people, as they tied nets together, the stories ... the whole social infrastructure that was around the fabrication of that net disappeared."***

Whyte (2016, p. 358 citing Hoover (2013, p. 5).

Māori prioritise and take pride in the existence of sustainable, resilient food systems. There is a *"intricate, holistic and interconnected relationship with the natural world and its resources, with a rich knowledge base – mātauranga Māori – developed over thousands of years and dating back to life in Polynesia and trans-Pacific migrations"* (Harmsworth & Awatere, 2013, p. 274).

### ***Motivator for collective capability development***

A theme to emerge from literature analysis was how food worked as a motivator for collective capability development. Whyte (2016, p. 354) argues it is essential to understand 'the ecological value of food' as a stimulus for the development of specific expertise, which tribal groups became known for. For example, tribal expertise was related to hunting, planting, harvesting and trading specific foods. These were used in medicines as well as for ceremonial/spiritual purposes (Blanchet, Batal, Johnson-Down, Johnson, Okanagan Nation Salmon Reintroduction Initiatives & Willows, 2021).

Blanchet et al. (2021) highlight the role that Okanagan Sockeye salmon play in the health and wellbeing (physical, cultural and spiritual) of the



Syilx Okanagan Nation in Canada. By the 1990s, the Okanagan Sockeye salmon population had drastically declined and were threatened with extinction. Causes for its decline were noted as overfishing, damming projects on the Columbia River, poor water management strategies, and environmental disruptions. The *Syilx siwtk<sup>w</sup>* Strategy involved both assessment of Okanagan Sockeye salmon population and a strategy for intervention (*Syilx siwtk<sup>w</sup>* Strategy, 2021).

Restoring and protecting the salmon was crucial to Syilx wellbeing and way of life. This served as a motivator for engaging families in intervention activities. Crucially, the strategy has re-established the Okanagan Sockeye salmon population, resulting in a rise of salmon harvesting and improved health and wellbeing for the tribes involved (Blancet et al., 2021).

Māori have similar intergenerational stories of mahinga kai as a medium for collective learning and sustainable practices. Metzger (2007) writes about the traditional role of grandparents in Murihiku when collecting toheroa in the 1950's.

***"They (grandparents) taught that toheroa were to be washed out using the flow of the surge of the waves rushing under our bare feet at low tide. This did not damage the fish, unlike the modern use of spades. We were taught to always feel round the hole for the toheroa and its mate, and sure enough you would get two-***

***at-a-time – any time of the year. As the toheroa age, their shell changes from the smooth white shell of the younger fish to a dull brown or black. We were taught to leave the old 'black stripers' as they are the mummies (the breeding stock)."***  
(Metzger, 2007, p. 14).

In the mid-fifties the Ministry of Fisheries took over administration of the toheroa beds. They imposed a season, and in spite of protests from Māori, allowed people to dig toheroa with a wooden spade. The spades smashed the shellfish and damaged toheroa were left to pollute the rest of beds. The regulations did not discriminate between taking old or young toheroa, so the breeding stock was further depleted (Metzger, 2007). Eventually the Ministry recognised there was a problem and closed the fishery completely.

***"It has stayed that way for so long that our people have lost touch with how to fish and care for toheroa."***  
(Metzger, 2007, p. 28).

The loss of the toheroa beds for Māori meant a loss of a sustainable kai source and the opportunity to continue intergenerational kaitiaki practices that had sustained the beds for generations.

***Food worked as a motivator for collective capability development.***

# BARRIERS THAT PREVENT WHĀNAU FROM MAKING 'GOOD' FOOD CHOICES

Several major themes emerged from analysis that highlighted specific barriers related to the absence of 'choice'. Findings indicated these barriers were multi-faceted and interrelated. The themes were:

- Absence of choice: Colonialism and structural racism, low income and poverty
- The Poverty-Obesity Paradox and monocultural, deficit health intervention approaches
- Whānau distrust of health/dietary professionals and experience of stigmatising, discriminatory practices.

These themes are explored in more depth in the following discussion.

## **ABSENCE OF CHOICE: COLONISATION, INSTITUTIONAL-STRUCTURAL RACISM, LOW INCOME AND POVERTY**

Much of the literature points toward low household income and poverty being a significant barrier for whānau to exercise healthy food choices (Glover, Wong, Taylor, Derraik, Fa'alili-Fidow, Morton & Cutfield, 2019). Poverty creates a significant barrier to a person's ability to choose healthy food (Rush, Puniani, Snowling & Paterson, 2007; Littlewood, Canfell & Walker, 2020; Wild, Rawiri, Willing, Hofman & Anderson, 2021). It is not only the cost of healthy, nutritious food but whether families have time available to access, prepare and cook such food (Glover et al., 2019).

***Poverty creates a significant barrier to a person's ability to choose healthy food.***

Subsequently, many studies, initiatives and policies are focussed on income as the most significant determinant of food insecurity and typically prioritise increases in family income as a solution. For example, Glover et al. (2019) conducted a qualitative study investigating Māori parents' and caregivers' beliefs about the

relationship of weight to health for children aged six months to five years. The study also explored participant views about the facilitators and barriers to healthy weight. Results indicated the high cost of healthy food was a key barrier. Cost was also associated with lack of time, coupled with personal stress levels due to low-income levels and financial constraints.

***Initiatives and policies are focussed on income as the most significant determinant of food insecurity and typically prioritise increases in family income as a solution.***

Lower income levels amongst Māori in New Zealand Aotearoa are due to the enduring impacts of colonialism as well as structural and institutional racism (Cram, 2011; Ministerial Advisory Committee on a Māori Perspective for the Department of Social Welfare, 1988). In 1988, the ground-breaking report 'Puao-te-Ata-Tū' was released which called for systemic transformation across state agencies to "attack all forms of cultural racism" and "attack and eliminate deprivation and alienation" facing Māori communities (Ministerial Advisory Committee on a Māori Perspective for the Department of Social Welfare, 1988, p. 9). The report noted deprivation and alienation was caused through colonisation and land loss, as well as high levels of Māori unemployment, educational underachievement, and health inequities. Despite the alarming evidence presented in the report, the recommendations were not fully implemented and the poverty and alienation facing whānau was not addressed.

***Lower income levels amongst Māori in New Zealand Aotearoa are due to the enduring impacts of colonialism as well as structural and institutional racism.***

There are structural issues within the food system that further disadvantage lower income or minority groups by reducing healthy food choices. These are also the result of colonisation and ongoing colonial policies. Researchers have shown that low-income neighbourhoods attract more fast-food outlets and smaller, more expensive convenience stores, as opposed to larger, supermarkets with fresh produce available (Drewnowski, 2009). By contrast, more affluent areas generally have access to a wider range of fresher groceries, better food outlets and more opportunities for physical activity.

***There are structural issues within the food system that further disadvantage lower income or minority groups.***

The perception of 'good food choices' is problematic as it tends to reinforce conventional food systems and overlook culturally appropriate or traditional Indigenous foods (Sowerwine et al., 2019). Food preferences and priorities of minority and Indigenous populations, as is the case with Māori, have historically been excluded from 'healthy' food pyramids and education, emergency food systems (e.g., food banks), as well as food insecurity reduction strategies (Shelling, 2019).

'Good food choices' are perceived through a Western nutritional lens, and so any 'different' food choices can be seen as 'bad.' The access to these good or bad food choices is then also misrepresented. For example, leafy greens are considered a 'good food choice', and bags of spinach are generally readily available in the supermarket year-round, often at extortionate prices. However, for Māori, the leafy green of choice may be pūhā, a plant that is not often grown commercially, or watercress, which is often found in waterways that are affected by polluted runoff or require access to land where waterways feature. For those on a low income, a \$4 bag of spinach is not a choice. An example of a more effective

change to the food system would be to include healthy food choices relevant to Māori. These can include commercialising pūhā and watercress, protecting waterways where watercress is grown from pollution and runoff, and improve access to waterways where watercress grows. This would be a more sustainable, appropriate, and effective way to improve choices without simply increasing income (Shelling, 2019).

***A more effective change to the food system would be to include healthy food choices relevant to Māori.***

However, personal choice of foods, based on income level, is not the only significant determinant of food insecurity for Māori. Understanding barriers to whānau food security needs to consider Māori food systems, and the colonial processes that disrupt them. This is also found within other indigenous groups. For example, a study of the unique attributes of food security was undertaken in Native American communities in the Klamath River Basin of southern Oregon and northern California (Sowerwine et al., 2019). This research found 'the majority of study participants lacked access to desired native foods, due to reduced availability from restrictive laws and habitat degradation under settler colonialism, and that limited access to native foods is a strong predictor of food insecurity' (Sowerwine et al., 2019, p. 1). Their conclusion was that 'increasing access to native foods and the rights and responsibilities to manage for them along with strengthening appropriate relationships are vital steps to achieving food security and food sovereignty' (p. 32).

***Understanding barriers to whānau food security needs to consider Māori food systems, and the colonial processes that disrupt them.***

Colonisation and its varying long-term and ongoing consequences are therefore significant when discussing barriers that prevent whānau from making 'good' food choices. Currently, the definitions, frameworks and measurement tools of food security and food poverty in New Zealand do not adequately reflect Māori lived realities and experiences and knowledge regarding food. As a result, the data does not paint a clear picture of the true issues that Māori are facing in regard to kai (Shelling, In progress).

Since the first New Zealand food security framework was developed by Reid in 1997, the questionnaire has remained largely unchanged (Shelling, 2019). Its eight questions are all related to household income and display an ignorance and exclusion of Māori food systems, values, or customs. For example, an affirmative response to the question, 'I/we rely on others for food and/or money for food, for my/our household when I/we don't have enough money', assumes that receiving this support makes an individual or household more food insecure. However, in te ao Māori, the practice of manaakitanga, or the sharing of food and resources, is a source of resilience and reflection of a community's cohesiveness.

Manaakitanga in contemporary food systems is a relevant and culturally responsive protective factor against food insecurity and is practised year-round, mediating interactions and food distribution in a community (Shelling, 2019). The absence of culturally relevant measures for determining food security for whānau is an artefact of institutional and structural racism.

***Manaakitanga in contemporary food systems is a relevant and culturally responsive protective factor against food insecurity.***



## THE POVERTY-OBESITY PARADOX AND MONOCULTURAL, DEFICIT HEALTH INTERVENTIONS

A significant barrier to whānau making 'good' food choices is related to the Poverty-Obesity Paradox. This condition exists when those in poverty may consume enough calories to meet or exceed their energy requirements, but those calories do not necessarily contain enough macro or micro-nutrients needed to promote optimal health and prevent chronic disease (Tanumihardjo et al., 2007). The coexistence of obesity amongst socio-economically deprived populations is becoming an increasing health concern. This is particularly marked in more developed and industrialised countries where the risk of obesity for Indigenous peoples is often 1.5 times higher than that of non-Indigenous peoples in the same country (Kuhnlein, Burlingame & Erasmus, 2013).

Symptoms of food deprivation, such as obesity or increased rates of non-communicable Diseases (NCDs) are often misconstrued as resulting from 'poor food choices', however the Poverty-Obesity Paradox explains why Indigenous, or minority groups often have very little choice due to broader social and political determinants. These same processes and systems that create poverty and socioeconomic inequities, such as food insecurity, also create an 'obesogenic' environment with multiple negative health outcomes. Solutions, therefore, need to seek the root causes of food deprivation and the processes that reduce choices, rather than just address the symptoms. A sole focus on obesity, therefore, is a very shallow and short-term approach to improving nutrition and wellbeing.

***The Poverty-Obesity Paradox explains why Indigenous, or minority groups often have very little choice due to broader social and political determinants.***

Deprivation-driven malnutrition outcomes have previously been stereotypically expressed as hunger or being underweight. However rapid globalisation is leading to a much more efficient distribution of cheap, highly processed foods to even the most remote of areas (Shelling, 2019). In an urban environment, Indigenous people are often removed from their extended family and sustainable food gathering, hunting or cultivating techniques that are more common in rural areas (Caballero, 2005). As income declines, energy-dense but nutrient poor foods become the most accessible, affordable and available way to provide daily calories (Hruschka, 2012).

***As income declines, energy-dense but nutrient poor foods become the most accessible, affordable and available way to provide daily calories.***

This results in an overrepresentation of obesity, diabetes, cardiovascular diseases and other diet-related non-communicable diseases. Extensive literature is now showing this Poverty-Obesity Paradox explains why and how minority or Indigenous populations in countries such as the United States, Australia, New Zealand and Canada are being overrepresented in negative health and nutrition outcomes.

Indigenous populations are seen to burden the government by failing to act in a 'responsible manner', and thus are targets for reform (Howlett, Seini, McCallum, & Osborne, 2011). Currently, individual choice of foods is emphasised as the problem and the solution, that if only Indigenous communities made 'better/healthier food choices' then they wouldn't be overrepresented in NCD statistics. Racial discourses such as this create an additional barrier for Indigenous health, as they are based on a narrow, shallow understanding of the processes that create health inequities. This creates a stigma that those amongst the lowest socio-economic groups are lazy, or not educated enough to make informed food decisions. The colonial experience of Indigenous people creates



obesogenic environments and influence an individual's likelihood of becoming obese. Solutions would therefore require improving understanding around the 'obesogenic' environment and the ongoing colonising and modernising processes that contribute to the social and economic marginalisation of Indigenous peoples (Caballero, 2005).

***Racial discourses are based on a narrow, shallow understanding of the processes that create health inequities. This creates a stigma that those amongst the lowest socio-economic groups are lazy, or not educated enough to make informed food decisions.***

There is criticism of monocultural, state interventions that reduce Indigenous community sovereignty and self-determination, leading to reduced motivation and ill-health within families. For example, food poverty and hunger in Australia disproportionately impacts Aboriginal and Torres Strait Islander communities (Bowden, 2020). Food insecurity is 5 – 6 times higher for Indigenous Australians than for other Australians (Smith & Staines, 2020). This is connected to unaffordability of quality food, poverty and low incomes, perpetuated through enduring historical power imbalances and colonialism.

Colonisation has dramatically changed tribal landscapes and greatly reduced traditional food sources. The control of food and its production has become a key feature of Australia's capitalist economy. Australian government policy initiatives and interventions developed to address food poverty in remote, Aboriginal communities are inadequate and monocultural (Smith & Staines, 2020). They typically focus on food choices by individuals/families and supporting food access to more nutritional foods. There is a lack of attention to historical, political and structural factors driving hunger in these communities. This approach has also been criticised as a form of

enduring colonialism and assimilation – whereby tribal groups are separated from traditional food sources, essential for cultural sustainability. They are also criticised as keeping Indigenous populations dependent on 'benefits' 'projects', 'interventions' and 'aid'. Such approaches do little to promote and/or strengthen indigenous community self-determination and capability development (Smith & Staines, 2020).

***Solutions would therefore require improving understanding around the 'obesogenic' environment.***

## **WHĀNAU DISTRUST OF HEALTH PROFESSIONALS AND EXPERIENCE OF STIGMATISING, DISCRIMINATORY PRACTICES**

Previous research involving Māori and Pacific communities in food- and nutrition-related interventions related to changing food habits has revealed their distrust in mainstream health professionals (Littlewood, Canfell & Walker, 2020; Wild, Rawiri, Willing, Hofman & Anderson, 2021). Whānau are more likely to seek help for health issues from trusted members of their community (Littlewood, Canfell & Walker, 2020). Empirical studies have demonstrated that previous stigmatising or discriminatory experiences can affect whānau engagement with other "unrelated services" (Wild et al., 2021, p. 675).

***Whānau are more likely to seek help for health issues from trusted members of their community.***

Within Aotearoa, Wild et al. (2021) researched a family-based intervention, 'Whānau Pakari' aimed at Māori and non-Māori children/adolescents with weight issues. The intervention was multidisciplinary and involved a paediatrician, dietitian, physical activity specialist, clinical psychologist and a healthy lifestyles coordinator. Key Māori community stakeholders were involved in the design of Whānau Pakari and importantly, the programme's emphasis was on general health and wellbeing rather than obesity. The project aimed to better understand participant's specific eating behaviours such as whether they ate breakfast, snacked at night, engaged in comfort eating and the types of food and drink consumed (Anderson, Wynter, Butler, Grant, Stewart, Cave, et al., 2016). Overall results found some participants achieved some modest health gains, such as reduction in body mass and improved cardiovascular fitness. Participants were more likely to reduce their body mass index standard deviation score if they attended more than 70% of programme sessions. However, results showed Māori were less likely to attend the recommended optimal number of sessions.

***Programme disengagement for Māori participants was related to their experiences of, and responses to racism, discriminatory practices and weight stigma.***

Wild et al. (2021) sought to better understand the experiences and perceptions of Māori participants involved in the intervention and their reasons for engagement/disengagement. Sixty-four in-depth interviews were undertaken with past participants of Whānau Pakari who had varying levels of engagement with the programme. Thirty-two interviews were conducted with Māori whānau and an equal number with non-Māori families. The interviews were qualitatively analysed; coded and themed.

Results revealed that programme disengagement for Māori participants was related to their experiences of, and responses to racism, discriminatory practices and weight stigma. Whānau described experiencing racism and bias of health professionals as well as deficit and negative stereotypes of Māori as 'lazy' and/or 'greedy'. This led to participants feeling judged for being Māori and overweight. In contrast, care that was respectful, compassionate and dignified appeared to overcome some of these past negative experiences. Many participants reported receiving this type of care in Whānau Pakari, and believed the intervention was culturally appropriate. Key to culturally appropriate care was the quality of the relationships whānau developed with the intervention team "rather than any tangible aspect of the service itself" (Wild et al., 2021, p. 674).

***Key to culturally appropriate care was the quality of the relationships whānau developed with the intervention team.***

## SOLUTIONS EVIDENT IN THE LITERATURE

Several interrelated themes emerged from literature analysis that highlighted solutions along a continuum of self-determination related to Indigenous Food Sovereignty. Analysis suggests sovereignty can be expressed at multiple levels by whānau, hapū, iwi as well as Māori groups and collectives. Indigenous Food Sovereignty is related to the ownership, power and control that whānau and Indigenous communities have in determining the role of kai (food) and its contribution to hauora. For example, common characteristics include:

- Whānau / family / community ownership and self-determination – strengths-based approach.
- Inclusion of cultural values and a holistic focus.
- Capacity (resource) and capability (skills and knowledge) development related to kai/food production or procurement.

***Indigenous Food Sovereignty is related to the ownership, power and control that whānau and Indigenous communities have in determining the role of kai (food) and its contribution to hauora.***

Within Aotearoa, "Food Sovereignty movements emphasise that, unlike food security, food sovereignty is about placing the control of food back into the local communities" (Healthy Families Waitākere, 2021, p. 1). Examples in the literature include:

- Whānau or community-led plans related to healthy kai – māra kai/community gardening, harvesting, cooking and sharing.
- Food production and community-focussed efforts such as improving access to healthy foods.
- The revitalisation of traditional plants and mātauranga associated with specific food or

medicine sources.

- Local action and food-based programmes developing community capability and capacity, through shared action, inclusion of cultural values and intergenerational transfer of traditional knowledge.

***Unlike food security, food sovereignty is about placing the control of food back into the local communities.***

Analysis also highlighted co-constructed initiatives focussed on Indigenous community empowerment, including community and school-based partnerships that developed children and young people's leadership to lead change within families.

Importantly, literature analysis demonstrates how 'solutions' are localised and framed around Indigenous community values, beliefs, lived experiences and knowledge systems (Whyte, 2016; Maudrie et al., 2021; Blanchet et al., 2021; Blue Bird et al., 2021; Budowle, Arthur & Porter, 2019; Coté, 2016; Merriam, 2021; Smith & Staines, 2020). The following section explores Indigenous Food Sovereignty in more depth.

***'Solutions' are localised and framed around Indigenous community values, beliefs, lived experiences and knowledge systems.***

## INDIGENOUS FOOD SOVEREIGNTY

Much of the international literature related to solutions for Indigenous food security concerns are framed within the Indigenous Food Sovereignty (IFS) movement (Whyte, 2016; Maudrie et al., 2021; Blanchet et al., 2021; Blue Bird et al., 2021; Budowle, Arthur & Porter, 2019; Coté, 2016; Merriam, 2021; Smith & Staines, 2020).

Indigenous health and food choices are closely related to the level of sovereignty that an Indigenous group has over its food system, and the political power and autonomy it can enact in this system. As highlighted earlier, sovereignty can be expressed at different levels (tribal collectives or networks, community-based, family-focussed). There is widespread agreement that IFS efforts are varied and localised, driven by community strengths, needs and priorities (Merriam, 2021; Kuhnlein, Burlingame & Erasmus, 2013; Maudrie et al., 2021).

***Indigenous health and food choices are closely related to the level of sovereignty that an Indigenous group has over its food system, and the political power and autonomy it can enact in this system.***

Initiatives and strategies are also much more likely to succeed in the long-term if they are undertaken by Indigenous people themselves to be stewards of their own change (Sowerwine et al, 2019). This addresses the power dynamics that have created and perpetuated health and food inequities. Food sovereignty realigns the power dynamics of a food system to make sure all actors and stakeholders in the food chain are empowered (Agarwal, 2014).

Maudrie et al. (2021) undertook a scoping literature review to identify common principles of IFS efforts. Twenty published intervention studies which focussed on improving Indigenous community nutrition and access to healthy foods were analysed. Of the reviewed studies the majority (17/20) were conducted in the United States and the rest in Canada.

Analysis identified four common IFS principles:

1. Community ownership and self-determination
2. Inclusion of cultural values and traditional food knowledge
3. Inclusion and promotion of cultural foods
4. Environmental sustainability.

Maudrie et al. (2021) called for these IFS principles to be incorporated into the development, implementation and evaluation of food interventions for Indigenous communities.

Indigenous food sovereignty solutions therefore prioritise Indigenous food systems, traditional food procurement traditions, values and physical spaces.

***“It is important to work with tribal communities to inform a more culturally nuanced understanding of food security that includes measures beyond access or distance to grocery stores, availability or affordability of healthy foods, poverty levels or financial resources to include culturally relevant measures such as access to traditional foods and the knowledge and social relations of stewardship, procurement, and exchange to support the sustainability of such practices.”***

(Sowerwine et al., 2019: 32).

Solutions to Māori food security must therefore be positioned within an understanding of the structural causes of socioeconomic inequities in Aotearoa, and encapsulate a ‘by Māori, for Māori’ approach to ensure sustainable, relevant, and appropriate strategies are being undertaken.

***Solutions to Māori food security must therefore be positioned within an understanding of the structural causes of socioeconomic inequities in Aotearoa.***



*Food production and community-focussed efforts (gardening, harvesting, cooking and sharing)*

Indigenous community gardens are one example of food sovereignty initiatives that improve healthy food choices whilst transferring power and control of food and agriculture systems to Indigenous communities (Hond, Ratima & Edwards, 2019). The focus on community māra (gardens) was a community-based intervention (Hond, Ratima & Edwards, 2019).

Importantly, gardening is more than just food production. Whilst gardening efforts can produce healthy food, the process also reconnects Indigenous communities to traditional knowledge and promotes togetherness (Budowle, Arthur & Porter, 2019; Blue Bird et al., 2021; Hond, Ratima & Edwards, 2019). The practice of gardening is explicitly linked to traditional tribal practices situated around planting, harvesting and cooking as well as food preservation skills. The activity of gardening links participants to important ecological knowledge related to seasonal changes and lunar movements. Gardening has tangible and intangible dimensions contributing to spiritual, physical, mental and collective wellbeing (Merriam, 2021).

***The practice of gardening is explicitly linked to traditional tribal practices situated around planting, harvesting and cooking as well as food preservation skills.***

Hond, Ratima and Edwards (2019) explored the significance of māra kai as a space for enhancing availability of and access to food resources for Māori communities. They highlight in their research that māra kai positively impacts Māori wellbeing beyond just physical health. Māra kai holds multiple functions and addressing community empowerment aspirations, such as, "reducing food costs, improving nutrition, promoting outdoor physical activity, encouraging wayward youth, engaging whole whānau and promoting good health and wellbeing in a holistic way, as well as positively influencing relationships between those involved and their land" (p. 47). Community gardening efforts typically encompass intergenerational activities and programmes that enable communities to utilise the knowledge of elders, women and men. A gendered and inclusive focus is important. Merriam (2021) notes that "Indigenous women hold important and distinct roles within Indigenous food systems (IFS) as both practitioners and knowledge keepers" (p. 21).

*Local Action – Food-based programmes that develop Indigenous community capability and capacity*

Another key feature related to solutions, is how Indigenous communities are able to develop their capabilities and capacities through IFS efforts (Merriam, 2021). Localised action includes efforts by families, sub-tribes/tribes and networks within and across specific areas. A specific feature is that this type of action leverages local resources (human and environmental) to build food programmes at the extended family/community level.

***This type of action leverages local resources (human and environmental) to build food programmes at the extended family/community level.***

Similar evaluations of health initiatives aimed at healthy eating involving whānau have found those aimed at improving collective capability are more

successful long-term, than those focussed on the individual (Hamerton, Mercer, Riini, McPherson & Morrison, 2012). Wānanga and community-based classes are identified as important for whānau/family capability development (Glover et al., 2019). These can include "meal planning, shopping on a budget, how to cook, what to cook, recipes, how to grow food, and how to read nutrition content labels on food packages" (Glover et al., 2019, p. 9). It also enables families to reconnect to traditional foods and move away from packaged and processed foods (Merriam, 2021).

***Community-based food activities foster intergenerational relationships and utilise the knowledge of elders as well as fostering young people's leadership.***

Food production and related skills are a conduit to culture (Hond, Ratima & Edwards, 2019). Community-based food activities foster intergenerational relationships and utilise the knowledge of elders as well as fostering young people's leadership. Everyday activities explicitly provide opportunities to engage in cultural learning, including caring for the environment. Identified programmes can include community-based agriculture, planning, planting, gardening, harvesting, land and water-based activities such as sustainable hunting and foraging. Food skills workshops, cooking, budgeting are also examples of community-based food activities. Breastfeeding is also promoted as an important cultural practice (Merriam, 2021).

***"Our concept of ūkaipo, literally to feed is not just the physical nurturing but also the spiritual and emotional nurturing which serves to eventually make the adult"***

Hon Tariana Turia.<sup>4</sup>

Breastfeeding not only provides more than the physical nurturing a baby needs, but it is also an integral factor in meeting the spiritual and emotional needs of a baby. The ūkaipo links the baby back to protection at a generational level.

<sup>4</sup> Breastfeeding: A Māori world view (October 2018). Baby friendly Aotearoa New Zealand.

For example, the provision of antibodies passed from generation to generation through wai ū, breastmilk, is accumulative. The love and the nurturing at the breast contribute to the potential of the child.

In the act of breastfeeding the baby, with physical closeness, eye-to-eye contact, and the great length of time a baby spent at the breast, whakapapa, waiata, mōteatea and karakia can be sung or recited and is imprinted into memory forever.

*Co-constructed initiatives focussed on whānau/Indigenous community empowerment*

Literature analysis also highlighted co-constructed initiatives focussed on whānau/Indigenous community empowerment. For example, Hamerton, Mercer, Riini, McPherson and Morrison (2012) conducted an evaluation of a Healthy Eating Healthy Action (HEHA) programme undertaken by six community-based Māori health agencies, entitled REPLACE. Funding was distributed to these Māori health agencies which developed programmes based on Professor Mason Durie's Te Whare Tapa Whā model with physical, mental, spiritual and family/social dimensions (Durie, 1984, 2001). Results from the evaluation demonstrated improvements in whānau eating and exercise habits as well as the importance of whānau empowerment developed through whanaungatanga (trusted relationships).

Individual whānau plans were co-constructed with Māori health agency practitioners and local programme coordinators to improve nutritional knowledge, increase physical activity, reduce obesity and educate whānau about healthier lifestyles. Whānau aspirations and health needs were central to these programmes, which also utilised whānau strengths and cultural values.

Nutrition programmes were developed to assist whānau to make healthier food choices and set better portion sizes. Cooking was another focus, with meal demonstrations that used fresh, easily accessible ingredients, low fat cooking methods



and recipes that were fast and easy to prepare. Whānau swapped healthy recipes with each other and learned about meals suitable for those with diabetes and/or for those who wished to lose weight. Some whānau established community gardens so food produce could be shared.

These gardens encouraged intergenerational exchange as kaumātua were able to pass on gardening knowledge to rangatahi and tamariki. Kaumātua were reminded of traditional kai practices that had been replaced by 'fast food lifestyles' (p. 66). They shared their knowledge in the preparation of garden sites as well as planting and harvesting of kai. Tamariki enjoyed tending the gardens and eating the produce they grew. Whānau were also involved in harvesting activities, such as gathering kai moana (seafood) and collecting excess fruit from local orchards.

Increased physical exercise was also promoted through whānau-based sessions including kapa haka, tai chi and martial arts. One community group set up a gym in a small garage. Another community established a 'walking bus' so whānau could accompany tamariki to school.

The power of role modelling was also emphasised. For example, a Māori health agency developed its own 'healthy eating' workplace policy and modelled behaviours whānau had committed to. These included 'monitoring the contents of the refrigerator closely and immediately removing unhealthy items such as sugary drinks' as well as making other 'lifestyle changes for the sake of their and their family's health' (p. 64).

### *Action research programmes aimed at adolescents*

Other examples included Indigenous communities partnering with outside organisations to improve their health and wellbeing. The Pacific Science for Health Literacy Partnership Project is situated in Tonga and The Cook Islands. It is a partnership project between the governments of these Small Island States and the Liggins Institute

at The University of Auckland (2014). It utilises participatory action research involving local health professionals, teachers and students learning about the link between poor diet, obesity and NCDs. It has evolved from a pilot programme in 2012 that increased the capability of adolescents and their teachers "to act as health promoters at school and home and increased their access to and use of evidence to inform their decision-making<sup>5</sup>."

### ***Adolescence is identified as a key developmental stage in understanding the role of food and exercise in healthy lifestyles.***

The project is delivered across several high schools in Tonga and the Cook Islands and is still being evaluated. It is largely school-based with the aim of improving scientific-literacy and the prevention of NCDs within families. Adolescence is identified as a key developmental stage in understanding the role of food and exercise in healthy lifestyles. The programme is described as multidisciplinary and holistic, utilising cultural, clinical and educational expertise. There is little information though on the role of food within the cultures of Indigenous groups across the Cook Islands and Tonga. The Pacific Science for Health Literacy Partnership Project website does stress that in Small Island States such as Tonga and the Cook Islands there has been a transition from "traditional foods grown locally to a reliance on importation of Western-style processed foods high in fat and sugar is common". There is a stated link between the current rates of obesity (91%/72%, in the adult population) and a concern about younger age groups. The focus on the leadership of young people highlights the importance of an intergenerational approach.

### ***The focus on the leadership of young people highlights the importance of an intergenerational approach.***

<sup>5</sup> <https://www.lenscience.auckland.ac.nz/en/about/partnership-programmes/pacific-science-for-health-literacy-project/community-consultation-/CommunityConsultationintheCookIslands.html>





## SUMMARY

This first section presented results from an integrative literature review, to address the research questions 1-3. Results highlight the role and value of kai/food and its contribution to health and wellbeing appropriate and relevant to Māori and other Indigenous communities. Several interrelated themes emerged from analysis related to the role of kai/food. These were:

- Food sources – more than just nutrition
- Sustaining culture and language through intergenerational knowledge
- Motivator for collective capability development

Specific barriers also emerged from literature analysis:

- Absence of choice: Colonialism, structural racism, low income and poverty
- The Poverty-Obesity Paradox, monocultural and deficit health intervention approaches
- Whānau distrust of health/dietary professionals and experience of stigmatising, discriminatory practices.

Solutions were identified along a continuum of self-determination related to Indigenous Food Sovereignty. Analysis suggests sovereignty can be expressed at multiple levels by whānau, hapū, iwi as well as Māori groups and collectives. Indigenous Food Sovereignty is related to the

ownership, power and control that whānau and Indigenous communities have in determining the role of kai (food) and its contribution to hauora. For example, common characteristics include:

- Whānau / family / community ownership and self-determination – strengths-based approach
- Inclusion of cultural values and a holistic focus
- Capacity (resource) and capability (skills and knowledge) development related to kai/food production.

Importantly, literature analysis demonstrates how 'solutions' are localised and framed around whānau/Indigenous community values, beliefs, lived experiences and knowledge systems. The findings above are similar to the common principles of IFS efforts created by Maudrie et al. (2021).

- Community ownership and self-determination
- Inclusion of cultural values and traditional food knowledge
- Inclusion and promotion of cultural foods
- Environmental sustainability.

The next section examines the solutions that have emerged from the Te Pūtahitanga o Te Waipounamu funding commissioning approach.



*The commissioning pipeline is participatory by design, whānau are engaged in self-work and self-generating change within their local communities*

*Te Pūtahitanga o Te Waipounamu provides resources to in-community change agents who are committed to enacting social transformation they know meets the needs and aspirations of their community.*

# COMMISSIONING TO ACHIEVE WHĀNAU ORA

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Te Pūtahitanga o Te Waipounamu was formed in 2014 to realise the aspirations of Te Waipounamu iwi for whānau through Whānau Ora. It is a legal partnership between the nine iwi of Te Waipounamu: Ngāi Tahu, Ngāti Apa ki te Rā Tō, Ngāti Tama, Ngāti Kua, Ngāti Koata, Te Ātiawa, Ngāti Toa Rangatira, Rangitāne and Ngāti Rārua.

Te Pūtahitanga o Te Waipounamu has a responsibility for commissioning Whānau Ora outcomes in a localised and responsive manner for the iwi in this partnership. It is an iwi-led Whānau Ora model that recognises investing in whānau as critical to realising positive social change. The purpose can be understood as addressing 'decades of injustice and inequality' (Savage, Leonard, Te Hēmi, Hynds, Dallas-Katoa & Goldsmith, 2018).

Te Pūtahitanga o Te Waipounamu is one of three organisations in Aotearoa New Zealand responsible for promoting and supporting the kaupapa of Whānau Ora. Each agency has the autonomy to create and develop its own pathways to achieve Whānau Ora.

Te Pūtahitanga o Te Waipounamu has created five pathways to achieve Whānau Ora.

1. A social enterprise model (the commissioning pipeline)
2. Whānau Ora Navigator model
3. Capability Development model
4. Whānau Resiliency Model
5. Research, innovation and advocacy model

This report is focussed on the investment stream 'commissioning pipeline', which is directly responsive to whānau needs and aspirations. The commissioning pipeline of Te Pūtahitanga o Te Waipounamu has been noted as being '*at the cutting edge of innovation in the Whānau Ora commissioning context*' (Wehipeihana, Were, Akroyd & Lanumata, 2016, p. 57).

Commissioning involves open funding rounds which invest in whānau-centred initiatives, held twice yearly. The commissioning pipeline is participatory by design, whānau are engaged in self-work and self-generating change within their local communities (Savage, Goldsmith, Tikao, Leonard, Te Hēmi & Hynds, 2021). The Whānau Ora commissioning process is strengths-based and empowering. It offers opportunities to reflect on transformations across Te Waipounamu for all whānau, hapū and iwi.

Within this model, Te Pūtahitanga o Te Waipounamu provides resources to in-community change agents who are committed to enacting social transformation they know meets the needs and aspirations of their community. Those change agents use "kaupapa initiatives<sup>6</sup>," encompassing a new organisation, service, programme, social business entity or the like to catalyse social change (McMeeking, Leahy & Savage, 2020). Since 2014 Te Pūtahitanga o Te Waipounamu have funded over 550 different initiatives.

A number of these have been directly related to addressing kai food security. The following section examines solutions that have emerged from the Te Pūtahitanga o Te Waipounamu Wave funding commissioning approach.

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<sup>6</sup> A number of these enterprises could be considered social enterprises or social innovations; however, we use "kaupapa enterprise" for the purposes of this report. There are various aspects to social innovation initiatives, however there is not enough space to do justice to this literature within this report.

## SOLUTIONS THAT HAVE EMERGED FROM THE TE PŪTAHITANGA O TE WAIPOUNAMU WAVE FUNDING COMMISSIONING APPROACH

In this section, Waves 1 to 13 were scanned for any initiative related to Indigenous Food Sovereignty. There were 49 initiatives funded within 39 entities. Approximately 15 percent of all funding into direct commissioning (up to Wave 13) involved kai/food sovereignty.

The initiatives broadly fall into six interrelated themes or categories.

- Māra kai and Māra rongoā
- Mahinga kai
- Food production and sales
- Wānanga
- Nutritional support
- Food distribution

An analysis of the initiatives demonstrates the holistic nature of Māori approaches to whānau hauora, kai security and sustainability. It is challenging to determine a single category for many initiatives, as they overlap, involving multiple activities.

Common to all is that they were/are whānau-led, holistic, localised solutions to address a specific problem or gap related to hauora, and the provision of nutritious kai and whānau access to it. Through the process of engagement whānau have developed and/or strengthened particular capabilities (skills and knowledge) for self-sufficiency, as well as capacities (resources) which have contributed to collective health and wellbeing. Importantly, the initiatives have strengthened their connections to te ao Māori and the values, knowledge and aspirations of their tūpuna. Mana motuhake kaitiakitanga, manaakitanga, kotahitanga and whanaungatanga are common values underpinning the initiatives.

***Mana motuhake kaitiakitanga, manaakitanga, kotahitanga and whanaungatanga are common values underpinning the initiatives.***

They also typically reflect holistic, interrelated principles essential for hauora (health and wellbeing) for Māori communities (Durie, 1984, 2001). There are four key pou or realms of being:

- taha tinana (highlighting physical dimensions)
- taha hinengaro (highlighting cognitive and emotional dimensions)
- taha whānau (highlighting social dimensions)
- taha wairua (highlighting spiritual dimensions)

Durie notes that when there is balance in these four dimensions – there is hauora.

### *Māra kai and Māra Rongoā*

In this category, commissioning has resulted in the production of traditional healthy kai, through whānau access to traditional and introduced fruit and vegetables, and rongoā. Bee-keeping and honey production have also been included in this theme. Some initiatives have focussed solely on the reclamation and production of traditional kai, such as taewa<sup>7</sup>, as seen in the Taewa Māra project. This initiative has enabled whānau to reconnect kai or their tūpuna with their connection to whenua in ways that strengthened their capabilities as kaitiaki and their participation in te ao Māori.

Other initiatives have created important partnerships or collaborations with local marae to create gardens, as seen in the māra kai initiatives at Ōtākou and Omaka Marae. Importantly māra kai is a collective intergenerational activity involving whānau of all ages to participate and learn together, for the benefit of all. Māra kai can also involve whānau working in partnership with other community groups and/or specialists (Māori and non-Māori).

***Importantly māra kai is a collective intergenerational activity involving whānau of all ages to participate and learn together.***

<sup>7</sup> Māori potatoes

Māra kai have been created at people's homes and/or established in community gardens. Regardless of location, whānau are involved in preparing, planting, maintaining and harvesting kai. There is also a focus on preparing and cooking nutritious kai as well as sharing recipes, seedlings and produce across the community. By growing their own healthy kai, whānau are able to save money such as in Te Hauora o Ngāti Rārua – Māra Oranga initiative described below. Besides ensuring whānau access to healthy, nutritious kai, māra kai benefits include increased physical exercise, improved relationships and sense of belonging as well as increased confidence and pride to participate in te ao Māori.

*The **Māra Oranga (Blenheim)** project engaged a local Māori horticultural scientist who worked with whānau to create a māra project on behalf of Te Hauora o Ngāti Rārua. Whānau built fourteen home-based māra kai at the homes of whānau, with a focus on kaumātua.*

*Whānau wanted the project to contribute to a sustainable lifestyle. They used locally recycled timber to build the māra and sourced heirloom seeds to grow. Each whānau established a composting system to help nourish their māra and it provided a way to utilise garden and kitchen waste, further increasing the sustainability of their lifestyle. Whānau learnt about building, planting, maintaining, and harvesting kai from their māra. They also shared their existing and new knowledge with others in their whānau, particularly tamariki and mokopuna who were keen to join in. Having access to a variety of fresh kai meant they also had to learn how to prepare and cook the kai, and how to preserve excess kai for leaner times.*

*Whānau lifestyles became healthier with an increased access to fresh vegetables and the physical activity of building and maintaining the māra kai. By preserving excess kai produced in the māra, their access to highly nutritious foods was maintained throughout the year. They were also proud to share their kai with other whānau. Growing vegetables in the māra at home, meant whānau were able to redirect the money normally spent on kai to pay for other necessities like power*

*and heating. This enabled whānau to move into a more aspirational space as their economic situation became more stable. Whānau also bartered seedlings, harvested kai, and preserves with each other which increased the variety they were able to grow in each māra kai and the kai they got to eat. The bartering system was another way to stabilise their economic base and create a healthier lifestyle.*

***By preserving excess kai produced in the māra, their access to highly nutritious foods was maintained throughout the year.***

Māra rongoā initiatives focussed on developing whānau knowledge and access to the health benefits of particular plants. Wānanga were run with kaumātua and rongoā practitioners teaching whānau about plant identification and making rongoā products. Importantly wānanga involved tamariki which enabled them to learn about the beneficial attributes of particular plants, along with recycling and planting procedures. As a result, intergenerational knowledge sharing and learning together on the marae has increased.

***Te Kura Taiao (Dunedin)** created curriculum resources around māra rongoā and māra kai at Te Kura Kaupapa Māori o Ōtepoti. Whānau and tamariki participated in gardening and harvesting efforts, with a focus on kaitiakitanga and hauora. Tamariki learned how to make rongoā products and these have been sold for fundraising to assist the bilingual kaupapa.*

*Through the māra kai and māra rongoā curriculum development, tamariki have reconnected with the whenua. They have learnt about kai, rongoā, sustainability, pests, ecology, biodiversity, healthy kai, native animals, and plants. Tamariki have worked with whānau during working bees and gone to St. Clair wetlands for wānanga. Tamariki have learned about products that can be made with what they grow in the māra. For example, lip balm and seed bombs. These have been sold in an online forum and at a fundraising gala.*

*Whānau learned appropriate karakia for hunting and harvesting activities, as well as sustainable harvesting quotas and protection of the kai environment.*

### *Mahinga kai*

Mahinga kai initiatives relate to natural and traditional resources as well as harvesting for sustainability. Typically, through these initiatives whānau learn about mahinga kai through diving, fishing, hunting, and harvesting activities.

***Tokomairiro Waiora (Milton)*** was created to support whānau to return to traditional hunting and gathering methods of providing food. Whānau were brought together to learn about water safety and processes of collecting mahinga kai through diving, fishing, and hunting. Ministry of Fisheries staff taught whānau about kaimoana quotas and measurements. They organised expeditions for whānau and reimbursed whānau for costs to participate. Whānau learned appropriate karakia for hunting and harvesting activities, as well as sustainable harvesting quotas and protection of the kai environment. They learnt how to prepare and cook mahinga kai and shared their kai with whānau.

Whānau whanaungatanga increased through shared activities, bringing together the different generations within their whānau. Whānau learnt from and with each other and had a deep sense of achievement and pride in being able to collect the kai and share it with kaumātua. Whānau learnt the karakia and Māori ingoa for the kai they were collecting.

## Food production and sales

These kai initiatives involve making and selling kai. A variety of initiatives specialise in producing and selling healthy kai. These enterprises are generally established using traditional ingredients with contemporary preparation methods, such as kombucha, condiments and low sugar drinks.

**Kiwi Kai (Nelson)** developed a drink, utilising kawakawa, lemon and lime under the Atutahi brand. They wanted to develop a low sugar, minimal additive and colour product using medicinal kawakawa. They partnered with Kombucha Bros Brewery to conduct compliance and shelf-life testing and worked with the syrup developers, the local council and MPI. Keeping the product development and compliance mahi local enabled whānau to work through the process quickly, keep fees down, and keep control of the process. In subsequent waves they have developed new flavours, one is sugar-free, and both have rongoā properties. Whānau partnered with Otago University to develop the sugar-free flavour and shift the product from cans to bottles. Whānau have learnt more about product development and global food distribution as part of their growing business understanding. Their new skills and understanding of the process of developing a food product and getting it to market has given them confidence in the success of this new product and sustainability of the business.

**Manaaki Preserves and Condiments<sup>8</sup> (Blenheim)** produced at Omaka Marae, are a range of delicious handmade preserves and condiments using traditional Māori ingredients with a modern spin. Through the Manaaki Sales and Marketing initiative whānau have learned about kai product development, marketing, and business enterprise. This enabled whānau to improve the visibility of their products. The kai is sold from the Manaaki Kai Kart at community market events and in some stores. Sales from the kai are used to increase the economic security of the marae and supply woolen blankets for local whānau through a service provider. Whānau learn about kai product development, marketing, and business and enterprise. Whānau handmake the kai products with a strong demand for the condiments. Their products have featured in national magazines and been nominated for New Zealand Artisan Awards<sup>9</sup>.

**Soul Full Superfoods (Christchurch)** provide a healthy option in the food truck industry. The initiative was originally designed to occupy empty space in the Christchurch post-quake CBD and offer healthy kai for rebuild workers. Over the year the business has evolved to meet the demands of different clients. Soul Full Superfoods supports events that promote healthy lifestyles such as the Weetbix Triathlon, powerlifting competitions, and exercise classes. As well as providing healthy food options, the business has run wānanga for whānau and schools. In one school they inspired tamariki to set up their own healthy kai business as a fundraiser for their bi-lingual unit. All the wānanga have led to whānau and tamariki making healthy kai choices and promoted positive messaging about Māori kai.



**Whānau have learnt more about product development and global food distribution as part of their growing business understanding.**



<sup>8</sup> <https://www.tastemanaaki.com/>

<sup>9</sup> <https://www.mnz.co.nz/national/programmes/afternoons/audio/2018662383/the-aunties-behind-manaaki-s-award-nominated-maori-condiments>



### *Wānanga*

Wānanga are another common feature of initiatives. Many wānanga have a holistic purpose achieving interrelated benefits for whānau. Often wānanga are related to other categories, such as whānau engagement in the creation of māra kai. Wānanga are often used throughout the initiative, to ensure whānau deliberate, consider, and evaluate the impact of initiatives. There is often an intergenerational focus.

**He Waka Kōtuia Kapa Haka Club (Dunedin)** whānau wanted to strengthen kapa haka capability in rangatahi so an adult kapa haka group from Dunedin might come out of their mahi. A Haka Fit initiative was set up and rangatahi were mentored to become leaders and trainers for Haka Fit. As part of the mentoring process a healthy kai workshop around rangatahi making healthy kai choices was developed. This initiative has positively impacted rangatahi, mātua, kaumātua, and whānau.

**He Waka Hauora (Dunedin)** used wānanga to enable rangatahi to learn more about the role of nutritious kai to enhance hauora, particularly as they engaged in fitness training for kapa haka. Healthy Food Choices ran several wānanga to inspire tamariki, rangatahi and whānau to emphasise the role of healthy kai for health and wellbeing. Tamariki and rangatahi were then

*inspired to set up their own healthy kai business as a fundraiser for their bi-lingual kura. These wānanga also led to whānau making healthy kai choices and promoted positive messaging about Kai Māori.*

**Te Whakapiki Wairua (Moeraki)** utilised wānanga to reconnect whānau to their role as kaitiaki of whenua, awa and moana. Whānau learned about sustainable harvesting of kai moana and other resources. These wānanga were subsidised by income generated through a coffee kart enterprise. Wānanga are also common in māra kai initiatives, such as Te Ngākinga nui a Wairua. Through wānanga whānau learned how to prepare and cook vegetables from the initiative's māra kai. Other wānanga were facilitated by rongoā practitioners teaching whānau about plant identification and how to make rongoā products. Wānanga strengthened relationships and brought whānau together. The sharing of tūpuna knowledge is a common feature of wānanga and an acknowledgement of the expertise within te ao Māori. Whānau feel a sense of pride in being Māori and by strengthening their own capabilities for self-sufficiency.

**Wānanga strengthened relationships and brought whānau together.**



### *Nutritional support*

Initiatives in this category typically work with whānau to change their dietary habits by enabling them to learn about the health benefits of fresh, nutritious kai.

**Hale Compound Conditioning (Christchurch)** was originally established to support whānau to increase physical activity at a low cost. Over the years the initiative has evolved into a holistic model of hauora to support whānau wellbeing. Originally a mobile gym and training service, they have developed their own gym space, built shared and whānau māra, supported whānau to become personal trainers, and provided nutritional and online physical support.

The community māra and worm farm was designed to boost the intake of healthy kai for all whānau involved. Nutritional support began as they organised speakers to support whānau with their training and disease prevention, such as diabetes nutrition. This evolved into comprehensive online nutritional programming and workouts that whānau can access from anywhere in Aotearoa.

**Whānau Whānake (Christchurch)** provides hauora support for whānau with chronic illnesses to help lower the markers of their illnesses. The training philosophy is based on the holistic model of Te Whare Tapa Whā. While clients of Whānau Whānake are individuals, the whole whānau are included in the training and supported to attend all training sessions and participate in all events. As part of making healthy lifestyle choices and participating in physical fitness training, whānau are given advice and support to make healthy kai choices as part of their hauora changes.

**Wero Warrior (Invercargill)** provides nutritional support to whānau leading and managing healthier lifestyles. Nutritional advice was an important part of a holistic approach to hauora. The initiative also included whānau learning te reo Māori, improving fitness, weight loss, learning about the history of their local whenua, and developing relational and spiritual connections to each other and te ao Māori.



### *Food distribution*

Initiatives focussed solely on improving whānau access to healthy kai during times of stress or great challenge. Many of these initiatives scaled up during the COVID-19 restrictions to ensure whānau who may have been susceptible to food insecurity had access to healthy kai.

**Purpose HQ Fitness Trust (Tapawera)** is a community-based gym that promotes healthy life choices for whānau including through healthy kai. They delivered food parcels to whānau, particularly kaumātua, who were isolated and vulnerable during the pandemic. During the lockdown they cared for Pacific seasonal workers ensuring they remained connected, had access to kai and necessities. The initiative also provided the local food bank with suitable freezer storage and fuel for three months.

**Foodbank Canterbury (Christchurch)** was a recipient of wave funding. They wanted to expand their food distribution to the rural regions in the northern central half of the South Island. The Foodbank collects and re-distributes fast moving consumer goods (FMCG) from supermarkets, growers, and any other source they can find.

Food is distributed to service organisations, and beneficiary agencies, which then distribute the food to whānau across Canterbury. The pandemic and subsequent restrictions highlighted concern for whānau in the regions who did not have ready access to the foodbank's resources. The Foodbank created the 'Food for Hope' programme and established a Regional Development Manager. The Foodbank Mobile Hub is a pantry-on-wheels that brings fresh produce and staple foods to rural areas. The programme increases access to healthy food and nutrition throughout the region primarily helping whānau experiencing economic set-backs due to COVID-19.

***The pandemic and subsequent restrictions highlighted concern for whānau in the regions who did not have ready access to the foodbank's resources.***



## COMMONALITIES ACROSS KAI INITIATIVES

Through commissioning, whānau have been able to be innovative and create their own response to the challenges they experienced with food sovereignty. The process of commissioning enabled whānau to be self-determining in pursuit of their hauora aspirations (Savage, Leonard, Grootveld, Edwards & Dallas-Katoa, 2014).

While there is considerable variation in the types of activities that whānau have undertaken in pursuit of food sovereignty – they have several common themes.

- The initiatives are all localised, drawing on local resources and networks. Whānau are leading their own change and utilising local resources within their communities.
- The initiatives all involved intergenerational collective activity that built the capability (knowledge and skills) of whānau as well as supporting sustainable use of resources. Whānau bring their previous skills, experience and aspirations to the kaupapa sharing these skills with other whānau.
- Importantly all the initiatives were focussed on hauora rather than solely improving access to quality kai. A holistic view of whānau wellbeing underpinned all the kai initiatives with the importance of connecting to te ao Māori fundamental to all initiatives. Food gathering and harvesting efforts enabled whānau to engage in their local cultural practices, enhancing their confidence to participate in te ao Māori. Food production initiatives were often modern recipes created from native ingredients from local māra.
- The initiatives supported social cohesion, were innovative and adaptive, mobilised, and provided opportunities for new knowledge to be created. They were enabled by a flexible commissioning environment.

These findings support the literature review results presented earlier. These solutions exist along a continuum of self-determination related to Indigenous Food Sovereignty.

Food sovereignty through commissioning is expressed at multiple levels by whānau, hapū, iwi as well as Māori groups and collectives. The common characteristics identified in the earlier literature review were apparent in the commissioning initiatives. These include:

- Whānau / family / community ownership and self-determination – strengths-based approach
- Inclusion of cultural values and a holistic focus
- Capacity (resource) and capability (skills and knowledge) development related to kai/food production.

Furthermore, the literature analysis emphasised that 'solutions' must be localised and framed around whānau/Indigenous community values, beliefs, lived experiences and knowledge systems. The findings from the commissioning scan reflect the common principles of IFS efforts by Maudrie et al. (2021).

- Community ownership and self-determination
- Inclusion of cultural values and traditional food knowledge
- Inclusion and promotion of cultural foods
- Environmental sustainability.

The next section presents a series of case studies to further illustrate the impact of these whānau-led enterprises.

- ***The initiatives are all localised, drawing on local resources and networks.***
- ***Whānau bring their previous skills, experience and aspirations to the kaupapa sharing these skills with other whānau.***
- ***Food gathering and harvesting efforts enabled whānau to engage in their local cultural practices, enhancing their confidence to participate in te ao Māori.***

# CASE STUDIES

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## KOHA KAI CASE STUDY (INVERCARGILL)

Koha Kai is focussed on creating social transformation within the disability sector through meaningful employment and education leading to nationally recognised qualifications. Koha Kai was founded by Janice Lee in August 2013.

After years working in the disability sector, Janice knew that many whānau living with disabilities (tāngata whaikaha) were constrained by low income which impacted their nutritional choices. They didn't have enough money, knowledge or confidence to meet their own nutritional needs.

Koha Kai was designed to bring tāngata whaikaha together to pool their resources collaboratively and learn together. Janice would walk alongside tāngata whaikaha taking them to the supermarket, identifying seasonal produce and learning how to get value for money on grocery items. Then they would work together to prepare five nutritionally balanced meals, which they would each take home for the week.

It didn't take long before they had outgrown the home kitchen, and a larger commercial grade kitchen was found within a school. The school didn't charge for the use of the kitchen. Their koha for the use of space was providing lunches for the children and charging a gold coin per meal, per child. Janice and her team quickly expanded to providing lunches to children in need while still providing healthy meals for the tāngata whaikaha who prepared and cooked them.

Since then, the initiative has grown, and Koha Kai has developed to provide training and employment opportunities. In 2014, a Trust was created to plan a clear pathway forward. Funding from Wave 4 and 5 supported the development of a feasibility study and a business plan to ensure the initiative could become a sustainable social enterprise. In Wave 7, further funding was received to develop Koha Kai into a teaching and learning social enterprise. Tāngata whaikaha earn qualifications supporting transition to employment either with Koha Kai or another employer. Most recently Koha Kai has focussed on increasing cultural capability,

and use of te reo in their kitchen and garden to support whānau on their cultural journey.

The initiative gained a horticultural arm in 2015, run by those interested in growing the kai to support the lunches in schools. As well as enabling whānau to create a good quality home cooked meal that is affordable, Koha Kai whānau can choose to learn about planting, recycling, composting, harvesting, pruning and identifying nutritional benefits of the plants and vegetables they are growing.

In 2018, Koha Kai became an official 'Lunches in Schools' provider. Koha Kai has expanded its operations to include growing its own produce and selling meals to the wider community. The Lunches in Schools initiative empowers whānau whaikaha while addressing the issue of child poverty and poor nutrition. The activity incorporates the core values of whakawhanaungatanga and manaakitanga into everyday practices within the kitchen or māra. The number of tamariki receiving a nutritious, balanced meal every weekday has increased across Murihiku due to Koha Kai.

Koha Kai has their own māra kai and have expanded their teaching programme. Essentially every person now entering the programme follows the process 'paddock to plate' including the sourcing of kai from seeds to growing, to harvesting, to cooking and then on to developing skills to sustain employment. Koha Kai follow specific mātauranga and tikanga, growing seasonally, companion planting to avoid the use of chemicals and using intergenerational growing practices. The māra kai is significant to their mahi. Unfortunately, Koha Kai does not own the māra kai land and it will be sold this year. However, they are about to finalise a collaborative partnership with a national disability service provider who will be providing 12 acres to them. This means they will be starting again; with the additional knowledge they have developed through the previous site. They have also formed a partnership with another group called Murihiku Kai Collective that will enable them to extend their seed saving and kai distribution, ensuring they can supply their own

kitchens, as well as other collaborative networks and Farmers Markets. The goal is to address inequities in the food system and ensure food sovereignty within their own region.

With food sovereignty as a focus, Koha Kai has also joined with Te Puni Kōkiri to initiate a Kōanga Kai programme through Te Wharekura o Arowhenua. This encourages whānau to learn how to grow kai in the kura garden and to enable whānau to establish their own gardens at home. The programme has proven very popular with whānau. Janice Lee has been concerned about fractured families Māori and non-Māori who have lost the skills to grow their own kai, due largely to the pressures of working and demands outside the home.

The impact on the health and wellbeing of the Koha Kai whānau has been significant. All those who participate in Koha Kai are encouraged to complete a food diary, so they can share knowledge about the food and nutrition the trainees are consuming and cooking with. Ensuring the kai they are providing to the tamariki is healthy, balanced and nutritious is important to the Koha Kai whānau.

Koha Kai has had a positive impact across much of the Murihiku community. The most significant impact appears to be for the trainees. Survey data, case studies and interviews consistently report an increase in the overall wellbeing of trainees, they are self-managing, living healthier lifestyles, report increased social connection and whanaungatanga support for whānau. They describe how they are given more responsibility, are more social, have more friends and have feelings of purpose and pride.

***"I'm more independent – don't need to rely on people. Can do things for myself. No longer receiving disability support services ... didn't have a relationship with my kids before, or my Mum, now I'm a lot closer, I'm more confident."***

(Trainee)

***"I get to do stuff every day. I don't have support anymore, I'm learning new stuff, I have made heaps of friends."*** (Trainee)

***"Making new friends and doing new stuff. I love cooking in the yellow kitchen, I like people seeing me in my uniform."*** (Trainee)

***"Hanging out with my friends outside of work hours."*** (Trainee)

Whānau of the trainees and the local community also experience the ripple effect of Koha Kai. Trainees have reported being recognised in their Koha Kai uniform and have been stopped in the supermarket to be thanked by members of the community for their contribution to ensuring their children have a healthy, well-balanced lunch at school.

***"I find it inspiring and am full of respect and admiration for what you do through Koha Kai – I know it has had a profoundly positive effect for my sister, who has visibly grown in confidence since being involved. She loves her Koha Kai whānau."*** (Whānau member)

When Janice was creating Koha Kai, she based much of her thinking on Te Whare Tapa Whā which identifies four cornerstones of Māori health – taha tinana (physical), taha wairua (spiritual), taha whānau (family) and taha hinengaro (mental). All are connected and align with Whānau Ora, a holistic approach to wellbeing. Janice describes Koha Kai as, "More or less a contemporary view of Māori culture as it has always existed." The idea of, 'it takes a village' is evident in the coming together of tāngata whaikaha, school whānau and community, all contributing to the growth and development of each other.

***"... it's a way of being, a way of supporting the whole person or the whole whānau and understanding that what we do is just throwing a stone into a pond and seeing the ripple go out."***

(Janice Lee)

Kai is recognised as an important conduit of manaakitanga. Learning to prepare kai for their friends and whānau enabled the trainees to show manaakitanga and care for the important people in their lives. The culture of manaakitanga is an enabler of social connection and creates whanaungatanga, a sense of family connection.

Relationships gained through shared experiences and working together provide people with a sense of belonging and connection. While these cultural values may appear to be a naturally occurring spill over from the work that has been carried out, it is evident that Janice and her team have taken deliberate steps to create an environment that promotes their development. The social gains of working together and for the children in schools have been significant for many tāngata whaikaha.

During the pandemic, Koha Kai was able to pivot its activity quickly and support whānau, particularly kaumātua, in the community with pre-made frozen meals. They started preparing 250 meals a day, and quickly moved to 400 a day to meet demand. Koha Kai delivered the meals around the Southland community at a cost of \$5 each. For many kaumātua and people living alone the pre-made meals ensured they were receiving a nutritious kai during the lockdown.

The social impact of the work of Janice and her Koha Kai team has been widely recognised. Janice was named Southlander of the Year in 2015, the Trustpower Supreme Winner NZ in 2016; and they have gained Westpac Business Excellence Awards in both the Not for Profit and New and Emerging Business Awards categories 2017, the NZ Māori Business Awards 2018 – People and Capability Award Winners, the Kiwibank Local Hero Award Winner 2018, and the Southland Business Excellence Awards - Invercargill Licensing Trust Not for Profit Award 2021.

## CASE STUDY – HĒMI

Hēmi<sup>10</sup> had been within the mental health system for most of his life. When Hēmi first came to Koha Kai, he was very overweight, living in residential intensive long-term care, and supported by a forensic nurse. During his first four months with Koha Kai, Hēmi learnt about healthy food choices, he became more active and had the opportunity to work with a dietician. As a result, he was able to lose more than 20 kilos. He has reported reduced knee pain, more energy, and his blood results have improved which is likely to positively impact on his diabetes and hypertension management.

<sup>10</sup> Hēmi is a pseudonym and is not the participant's real name.

Being part of the team provided Hēmi with a sense of belonging and purpose improving his overall quality of life. Both Hēmi and his mother describe an increase in self-esteem and self-worth. Since graduating he has had a casual contract with Koha Kai, supporting his mum and living independently. He has started his own men's group which meets once a month where members cook, have dinner together and connect socially.

This is a phenomenal change given where Hēmi started. It is evidence that in addition to learning basic kitchen and food skills trainees are learning fundamental life skills such as communication and interpersonal skills, resilience and self-management.



## KEY IDEAS

- **Koha Kai provides a social context to support collective change for tāngata whaikaha.**
- **Māra, nutrition, cooking and preparing kai are situated in the concept of manaakitanga – providing care for others.**
- **The focus is holistic wellbeing, tāngata whaikaha are more active, have improved nutrition, increased social connection and increased opportunity through the social enterprise.**
- **Tāngata whaikaha are building capability and becoming leaders within the programme, some move on to other employment opportunities within hospitality.**

## KAI CONNOISSEURS (ARANUI, CHRISTCHURCH)

Kai Connoisseurs is a holistic approach to kai. It's not just a café, or a catering service, but a whānau that promotes healthy living, centred around kai, through a variety of activities.

Sachiko Shimamoto (Ngāi Tahu, Ngāti Kahungunu, and Japanese) established Kai Connoisseurs in 2019. Sachiko has a passion for Japanese kai inspired by her whakapapa. Two and a half years ago she took \$100 out of her grocery budget to make some dumplings and sell them. She would take the money from the sales and reinvest over and over again until she had created a small business catering company. In 2020 she applied to Te Pūtahitanga o Te Waipounamu for Wave 11 funding. This enabled her to open the Kai Connoisseurs café in April 2021, situated in Hampshire Street, in Aranui Christchurch. She now employs six wāhine.

The café and catering business is run as a social enterprise. The profit from the two income earning streams gets fed back into positive activities in the community. The café holds weekly te reo classes that are free and open to the community. Reo is incorporated into the café, the programmes and the delivery as everything comes from a te ao Māori perspective.

***"I didn't intentionally go, oh, this business is going to be kaupapa Māori, or it's going to be te ao Māori. It just is what it is because that's who we are."*** (Sachiko)

The café also runs *Kai for a Koha*, offering free food for whānau in Aranui. Sachiko didn't want pūtea to be a barrier for coming to the café. They offer eggs on toast, soup and toast, or hot drinks for a koha or nothing. Kai Connoisseurs provides grocery packs for families that are struggling. Sachiko has found affordability of healthy food is a significant constraint for many whānau, nutritious food is getting more expensive, and the minimum wage doesn't match a living wage. In addition, whānau are also time poor and many are not confident in the kitchen to cook different meals. They will often cook the same meals over and over again, simply because it requires less energy and time.

After doing research Sachiko found the cooking classes available in Christchurch are high end, quite expensive, and more suited to business team building exercises, than for whānau on the east side. As a result, Sachiko and her staff developed Kai Coach which is designed to support whānau to gain confidence working in the kitchen, to learn new skills, to learn about nutrition, about planning and preparation, all on a practical level. Woven through the programme is making connections with others, whanaungatanga. The Kai Coach programme is hands on, so it's person to person support within a social environment. They offered a dumpling making class and had 60 whānau sign-up. The classes were so popular they filled up within hours.

Once the whānau come into the whare, they are able to go through the kawa and the tikanga of the whare. They learn and practice karakia and work together to learn new skills.

The classes are being developed into an eight-week programme, 10 whānau sign up and are invested into change, learning and gaining skills that could potentially transform and change their lives. The idea is that at the end of the eight weeks, they will have more confidence to cook at home. They will be able to plan a weekly menu, budget and shop for that. Whānau will be able to save money as they learn meal planning, shopping and preparation.

***"There's a high chance that eating wholefoods regularly is going to improve your hauora, and the hauora of your whānau."***  
(Sachiko)

### FUTURE ASPIRATIONS

During her studies at Canterbury University, Sachiko was exposed to research that demonstrated the connection between food and mental health. She is particularly interested in whānau who present with mental health challenges being supported to implement holistic natural ways to improve and enhance their health.



***"Mental health challenges are directly connected to our gut health, and it's not something that is supported or promoted, I don't know if there are many places that offer (kai) support at low cost, available to whānau."***

(Sachiko)

Sachiko has seen how whānau who present with mental health are easily prescribed anti-depressants. She believes there is opportunity, in exploring holistic ways of improving mental health, particularly through food, prior to exploring medication. She is also interested in working with wāhine around body image and relationships with food. Sachiko has found there is a lack of support for wāhine, and tāne around access to eating-related challenges and changing the narrative in Aotearoa.

***"There's this blanket of shame, and there's this blanket of struggle and difficulty, which I think is connected to confidence, to our mana."***

(Sachiko)

Her hope is that Kai Coach will be able to enhance the mana of wāhine who participate, particularly around their own relationship with food and their bodies. Sachiko draws on her personal journey breakthrough, as she examined her relationship with her body and food and the whakapapa behind that. The experience changed her life entirely and it changed the way she saw herself.

***"I attribute many of the successes, many of the things that I do today, and the strength and the capacity, with healing my relationship with myself, my body and with food. I want to just awahi other wāhine through the journey."***

(Sachiko)

Previously, Sachiko's interest in food led her to be a facilitator for the Appetite for Life, a DHB funded Ministry of Health programme. She was inspired by the content but felt the programme was not specifically targeted for Māori whānau. Her aspiration has long been that Kai Coach could potentially sit alongside Appetite for Life and be a Ministry-funded kaupapa with referrals from numerous places including GP's. Sachiko's future aspirations include gathering the evidence to demonstrate the impact of nutrients on wellbeing

and the impact of the Kai Coach programme on whānau wellbeing.

Her big dream is to build a multipurpose Whare Kai. Her vision is an organisation that supports whānau wellbeing with the kaupapa centred on kai. There would be a Kai Coach teaching kitchen, a café would run during the day, a food bank would be onsite, and whānau could access other holistic hauora services such as mirimiri, counsellors and so on.



## KEY IDEAS

- Kai Connoisseurs uses a social enterprise model to support the local community
- The approach is hands on, person-to-person support to learn new skills
- Pūtea is not a barrier to participation for whānau
- Aspirations are situated in holistic ways of improving mental health through kai
- Shame and struggle are intertwined, creating a major barrier to whānau reaching out
- Reo, tikanga and cultural practices are just part of how they operate as Māori
- Kai Connoisseurs aspires to support whānau wairua and mental wellbeing through kai.

## MATARIKI MUSHROOMS (MOTUEKA)

Mihau Weinboecker (Polish and German descent) and his wife Valetta Sówka (Ngāti Rārua, Ngāti Tūwharetoa, Te Arawa) are the owners of Matariki Mushrooms, a new business situated in Motueka. They converted a garage on their property into a workshop, where organic straw is transformed into nutrient-rich substrate. In a shipping container they have created a laboratory and two temperature-controlled compartments. In the far end of the container, dark, warm conditions replicate an underground environment, where mycelium (the fine threads fungi send out) colonise bags of substrate. Mihau studied environmental science and permaculture at university and brings this knowledge into the work the couple do now.

With a Wave funding grant from Te Pūtahitanga o Te Waipounamu, Mihau and Valetta hope to share their knowledge and spread the benefits of growing native mushrooms, harore, both as a beneficial food source and an organic remediation process for the whenua. This year they ran three wānanga for local whānau connected to Te Awhina Marae in Motueka. Over twenty whānau, including tamariki and partners attended. They taught the diverse ways that whānau can grow harore, including on logs, in a mulch bed garden and indoors.

The focus has been on providing people with the knowledge to grow a sustainable food source as part of their own food sovereignty. The pandemic has made Mihau and Valetta even more aware that whānau need to be able to access food, particularly if their food supply stopped. They recognise that the disruption of knowledge surrounding ancestral food practices has had significant impact on Māori food sovereignty.

They want to bring awareness to grow harore but also to the importance of food sovereignty, and ancestral kai as healthy kai. In their wānanga they share their knowledge with whānau of how their ancestors used to eat.

***"It was a very different diet to when the Pākehā came, they bought a whole different diet, and our people accepted that. Tūpuna kai is very healthy."*** (Valetta)

The couple emphasise the tūpuna kai, ancestral diet. They believe it is empowering for whānau to hear that their tūpuna were strong and healthy, and resilient.

Whānau who have attended the wānanga report that they enjoy growing the mushrooms at home with tamariki and other whānau. The couple have enjoyed hearing from whānau who have reconnected with ancestral knowledge, which has led them to feel empowered about being able to grow their own kai. They encourage whānau to start a small patch and grow their favorite vegetables. They don't need to have a huge veggie garden and can just start with one thing. By creating a small mulch garden, they can suppress the weeds and grasses, grow a few crops of mushrooms and then the soil is rich and able to grow vegetables. This creates more sustainable food practices and encourages whānau stewardship of their own land.

Part of their kaupapa is raising awareness about healthy eating. They focus on mushrooms as a sustainable source of food that people can grow easily at home to supplement their diet.

Mihau and Valetta focus on native mushrooms, harore, which are overlooked as part of the New Zealand food system. Knowledge of native mushroom species is lacking, and they are not readily available on the market. Similar mushrooms, like pink oyster mushrooms, are available but these strains are generally sourced from Bali. There is very little awareness that there are alternative sources of native mushrooms that taste delicious and grow fast. They see their work as a way of protecting native species.

As part of their Wave funding, they have been working on a new project 'Heal the Whenua.' The project is designed as a micro remediation pilot using fungi to heal the land of contaminants. It is a method to use fungi to break down toxins like DDT, which is a major problem on the whenua. Native mushrooms are especially good at breaking down toxins in soil. Locally in Mapua, they have dug up soil, put it in trucks, taken it somewhere else and burnt it because of contamination. They are hoping to demonstrate that using fungi as a micro land remediation intervention works in New Zealand.

The couple have been working towards creating a sustainable business supplying customers with fresh native mushrooms. Part of their business plan was to sell at local markets, but the pandemic restrictions interrupted these plans. Instead, Matariki Mushrooms has partnered with a local 'Farm Fresh to you' network which sell the harore on their behalf. These local relationships and connections have worked well for them, and as they are not interacting face-to-face with customers enabling the model to continue during lockdowns.

## KEY IDEAS

- **A colonised food system in Aotearoa has resulted in illness for Māori and loss of ancestral food systems**
- **Returning to tūpuna kai and an ancestral diet is an important part of Māori food sovereignty**
- **Protecting and promoting harore is a key outcome as they are underutilised as a food source**
- **Local relationships and connections have provided distribution and a market**
- **The wānanga support whānau to learn together and create a community of harore growers.**





# kōanga K A I

## HEI WHAKAPIKI MAURI (CHRISTCHURCH)

Te Pūtahitanga o Te Waipounamu saw an opportunity within the kai system to extend the approach to kai security, and furthermore into kai sovereignty. In 2021, the Kōanga Kai programme was established, which invested more than \$1,000,000 across the South Island by enabling 27 entities to deliver in-home māra kai packs for whānau, with expert support and guidance, to grow, harvest, prepare, and consume their own fresh produce. Several hundred whānau will benefit from this investment in kai sovereignty over the next year, including the connected network of entities that will enhance the strength and sustainability of the initiative. Each entity brings strengths and unique characteristics to the network that will enhance the collective response through individual specialities.

***This whānau rangatiratanga by building healthy and sustainable kai production practices, influenced by the traditions and mātauranga of tūpuna. It provides physical resources and coaching so whānau can create gardens in their homes and communities, and engage in planting, hunting, gathering, foraging, producing, preserving and preparing kai.***

***Kōanga Kai is about self-determination and sustainability – kai production that puts whānau in charge of creating healthy lifestyles, and that is environmentally and economically sustainable.***

Hei Whakapiki Mauri is a Whānau Ora initiative that brings Māori with disabilities and their whānau together to awahi each other using a te ao Māori approach. Whānau Ora Navigators employed through Hei Whakapiki Mauri work kanohi-ki-te-kanohi with whānau in Waitaha who have a Māori family member with a disability. A Navigator's role is to help whānau find pathways to achieve their goals and aspirations. Navigation is also about supporting whānau and whaikaha to find their voice and advocate for themselves.

Waikura and Billy are Navigators and have been employed by Hei Whakapiki Mauri since the organisation's inception. During the first COVID-19 lockdown it was evident they needed to pivot the navigation support provided to the whānau they worked with. Tāngata whaikaha (whānau Māori with disabilities) often have complex needs and compromised health. While all New Zealanders were affected by COVID-19 and the resulting lockdowns, the restrictions exposed and exacerbated some existing inequities in disabled people's enjoyment of human rights (The Independent Monitoring Mechanism's Report on the New Zealand Government's Response to the COVID-19 Emergency, 2021). Issues with supply and demand, high prices, and access further compromised the already tenuous food security of tāngata whaikaha.

It was evident to Billy and Waikura that whānau were suffering from isolation, were home bound and unable to access the healthy kai they needed. They believed having a māra (garden) of their own would serve several purposes. It would enable them to grow healthy kai, positively supplementing their diet. Secondly it would provide whānau with an activity and distraction while they were at home. Thirdly, the pride they felt as they grew their own kai would enhance their mana and feelings of self-worth. With support from Hei Whakapiki Mauri management and a small budget, Billy was able to source sufficient prefabricated garden boxes, soil, plants and seeds to start nine whānau on their gardening journey. When Te Pūtahitanga o Te Waipounamu made funding available through the Koanga Kai<sup>11</sup> funding stream, Hei Whakapiki Mauri

successfully applied for funding to enable them to expand the initiative to more of their whānau.

There are now more than 20 boxed gardens of various sizes provided to tāngata whaikaha through this initiative. In addition, a landowner has donated a piece of land for Hei Whakapiki Mauri to develop as a garden so māra kai can be gifted to members of the Hei Whakapiki Mauri whānau who need it.

## IMPACT

While Billy and Waikura correctly predicted positive impacts from this initiative, the actual impacts have been astonishing. There is evidence of:

### WHĀNAU IMPROVING THEIR DIET

Tāngata whaikaha typically live on a benefit. This constrains their food choices and dictates the types of food they are able to eat. The price of salads and vegetables often meant they were out of reach. Consequently, their diets were largely comprised of cheaper, high carbohydrate foods. As Billy explained, "Before they might have been able to afford a chop and a potato. Now they can have vegetables or salad on their plate." Growing their own vegetables provided enhanced food security, allowing them to pick or cut vegetables as they needed them.

### INCREASED SOCIAL CONNECTION

Different whānau have different strengths and varying knowledge. This knowledge is shared across the whānau during hui or via the Hei Whakapiki Mauri Facebook page. Tāngata whaikaha who were previously very quiet now have something to contribute; gatherings inevitably start with discussions about māra, who is growing what and how it's progressing.

'Mā te tuakana ka tōtika te teina. Mā te teina ka tōtika te tuakana.'

'As the experienced teach the inexperienced, the inexperienced teach the experienced.'

<sup>11</sup> The Kōanga Kai Fund was established in 2021. Kōanga Kai is about self-determination and sustainability – kai production that puts whānau in charge of creating healthy lifestyles, and that is environmentally and economically sustainable (see <https://www.teputahitanga.org/what-we-do/funding/koanga/>).

## SHARED AND REMEMBERED MĀTAURANGA

The māra have been a vehicle for whānau to remember the important lessons they learnt from their parents and grandparents. Whānau are able to share what they know (if they choose to). Billy and Waikura facilitate workshops to teach and revitalise some of the mātauranga that may have been lost e.g., how to grow and nurture a rewana bug from your own potatoes.

## ENHANCED WHĀNAU CONNECTION

Whānau have improved their relationships as they garden together. The action of gardening, side by side, has enhanced whanaungatanga (whānau cohesion). Tamariki are more likely to eat vegetables they have grown, making mealtimes more pleasant for all.

## INCREASED MANA

The ability to grow kai and give it away to other tāngata whaikaha, or to members of their wider whānau has been mana enhancing for the gardeners. When they have an over-abundance of produce they advertise through Facebook and whānau indicate their interest in receiving. Giving has enabled them to move from receivers of help and support to providers. They are able to show and experience manaakitanga. This is an important shift in how they view themselves and how they believe they are perceived by others.

## IMPROVED MENTAL WELLBEING

Billy and Waikura have noticed a considerable improvement in mental wellbeing since the commencement of this initiative. Improved diets, consequent improvements in gut health and increased energy mean whānau are feeling better. Their māra gives them a purpose. For some whānau it is their reason to get out of bed. Whānau with compromised health and/or addiction issues are able to experience success. In addition, being part of the māra community, sharing their produce and helping out their wider whānau gives positive feelings of increased self-worth. Tāngata whaikaha who care for tamariki have less stress because they are able to provide for their children with a healthier diet.

## SUCCESS FACTORS

There are several success factors that make this initiative work. Firstly, the initiative is based on strong relationships. Billy and Waikura have longstanding relationships with the Hei Whakapiki Mauri whānau, they are known and trusted. This gives them access to whānau that would not be given to an unknown person, no matter how well intentioned. Billy and Waikura have an approach that enables whānau to feel safe. They present themselves with humility, not as expert gardeners, but as learners who are learning with tāngata whaikaha as they go. The ability to create a safe and non-judgemental environment is important.

Secondly, this is a localised solution informed by local knowledge. The initiative is a local solution to a local problem, developed by those who were familiar with the context. Contextual knowledge has enabled Hei Whakapiki Mauri to develop a bespoke, fit-for-purpose solution to address the issue. Their knowledge of the wider community enabled them to access the resources the whānau needed. They are close to the whānau they support, and therefore able to respond quickly to challenges as they arise.

Thirdly, this is a Kaupapa Māori initiative. Developing māra through a kaupapa Māori organisation, with Māori Navigators and with an ao Māori approach is an important success factor. Whānau learn about the māramatanga, companion planting and organic practices. They are able to reconnect with Papatūānuku, and through their gardening, enact kaitiakitanga; improving the quality of their soil and therefore the health of Papatūānuku. Billy spoke about one tāngata whaikaha who has not started his garden (yet) but attends hui and workshops because he is interested in the mātauranga being discussed.

Billy and Waikura are able to shape their advice and support to best suit the whānau. The shape, size and height of the garden can be varied. At times whānau are encouraged to start with a small herb garden to get them started. One whānau member ate mainly smoothies, so was supported to plant a garden with vegetables best suited for that purpose. Flexibility and adaptability enhance effectiveness. Change is planned alongside whānau so it will work for them.



The māra approach has developed a ripple effect into other communities and whānau. Tāngata whaikaha have become examples to other members of their whānau, as have Billy and Waikura. As whānau see the benefit of having their own māra, and the pride the gardeners have in their produce, they realise having their own māra is achievable and enjoyable. Further they witness the nutritional and budgetary benefits of growing their own healthy kai. Rāpaki Marae, where Waikura is chairperson of their hauora committee, successfully sought their own Koanga Kai funding and now have 20 of their own whānau growing their own māra. This demonstrates how whakapapa (ancestral links) and whanaungatanga (relationships) allow a kaupapa to spread in unexpected ways.

## FUTURE IDEAS

Billy and Waikura have numerous ideas for how this initiative could continue to evolve and grow.

Within the current initiative they are continually adding new tāngata whaikaha gardens. They are aware that every member of the Hei Whakapiki Mauri whānau is different. They have varying health needs and it will take some longer than others to get on the māra waka.

Increasing the ao Māori aspect of this kaupapa is a continual priority. Billy and Waikura are interested in accessing ancestral seeds and expanding their knowledge of traditional practices.

They intend to continue enabling whānau to learn from and with one another through workshops, hui and online. Learning to preserve and pickle and swapping recipes and ideas has generated an idea for a cookbook.

They have been approached by whānau outside the Hei Whakapiki Mauri kaupapa who are keen to start a garden but are not funded to support them. Consequently, they know there are opportunities for other, similar initiatives to make similar impacts, particularly in lower socio-economic areas.

## KEY IDEAS

- **Whānau living on benefits have difficulty affording healthy food choices.**
- **Whānau will supplement their diet with healthy kai if it is available.**
- **Whānau are more likely to engage in a healthy kai initiative when they have a pre-existing, trusting relationship with the provider.**
- **Locally designed solutions are more likely to solve local issues.**
- **Initiatives grounded in kaupapa Māori and mātauranga Māori are engaging for Māori. They ensure multiple outcomes enabling: ako (reciprocal learning); manaakitanga (the enhancement of mana); kaitiakitanga (care for the environment), and; whanaungatanga (relationships).**
- **Face-to-face and online hui and workshops, and social media support whānau to learn together and create a community of kaimāra (gardeners).**
- **Whakapapa and whanaungatanga enable a ripple effect, ensuring the impact of the initiative is felt beyond those directly involved.**

# INTERGENERATIONAL PERSPECTIVES AND THEIR INFLUENCE ON WHĀNAU CONSUMPTION OF KAI

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## TRANSMISSION OF CULTURAL KNOWLEDGE

We start this section with a reminder that from a Māori worldview, kai is more than just a source of nutrition or sustenance. As discussed earlier, the role of kai and its contribution to whānau hauora has spiritual, social, emotional, and physical dimensions. With this focus in mind, we consider how an intergenerational perspective informs the ways in which whānau consume kai.

The health and wellbeing of whānau, hapū and iwi is closely interlinked to the health and wellbeing of whenua, awa and moana through whakapapa (Reid, Rout, Tau & Smith 2017). An example of this can be seen through Tainui waka and Ngāti Tūwharetoa who identify Waikato Te Awa as a tūpuna and taonga that sustains mauri. Kaitiakitanga (protection and guardianship) of the natural world has both spiritual, physical and emotional dimensions to ensure the health and wellbeing of whenua, awa and moana. The kai harvested from the rohe in turn sustains the health and wellbeing of whānau. The intergenerational transmission of cultural knowledge, associated with kai and kaitiakitanga is essential for informing the way in which whānau consume kai.

There is evidence across the commissioning pipeline that whānau enterprise is informing an intergenerational perspective on the role of kai in hauora. The commissioned initiatives have facilitated intergenerational impact, as mokopuna, tamariki, rangatahi, mātua and kaumātua have been involved in kai initiatives and strengthen their abilities for kaitiakitanga. For example, Te Kura Taiao enabled tamariki, their whānau and Kaiako to reconnect with their whenua in ways that enabled them to strengthen their knowledge of kai, kaitiakitanga and hauora. Taewa Māra empowered whānau to reclaim and produce traditional, nutritious kai in ways that strengthened their capabilities as kaitiaki and their connection to te ao Māori. Kōanga Kai supports whānau rangatiratanga by building healthy and sustainable kai production practices, influenced by the traditions and mātauranga of tūpuna.

***Intergenerational transmission of cultural knowledge, associated with kai and kaitiakitanga is essential for informing the way in which whānau consume kai.***



Common to the initiatives is the importance of place, language and culture to whānau wellbeing, with kai being the conduit that brought whānau together in ways that strengthen relationships and togetherness. Māra, nutrition, cooking and preparing kai were situated in the concept of manaakitanga and whanaungatanga – providing care for others. This can be seen in the intergenerational transmission of knowledge, culture and whenua, as kaumātua shared their knowledge with others. For example, māra rongoā initiatives enabled kaumātua to run wānanga with tamariki to teach them about the health benefits of particular plants and how to care for them. Such activities improved wellbeing through intergenerational knowledge sharing and learning together on the marae. Mahinga kai initiatives, such as Tokomairiro Waiora also brought whānau together as they strengthened their knowledge related to natural and traditional kai resources and how to harvest these sustainably. Whānau whanaungatanga increased through shared activities, bringing together different generations. Whānau learned from each other and developed pride in their abilities to collect kai and share it with others. Such examples illustrate the importance of manaakitanga and whanaungatanga to whānau wellbeing and how important it is to experience success as a whānau.

***Māra, nutrition, cooking and preparing kai were situated in the concept of manaakitanga and whanaungatanga – providing care for others.***



## STRENGTHENING WHĀNAU CAPABILITIES TO LEAD HEALTHIER LIVES THROUGH KAI INITIATIVES

The examples presented in this report, emphasise the various ways in which whānau intergenerational capabilities were strengthened. The many, varied initiatives have enabled whānau to lead healthier lives. The initiatives were whānau-led, collective (involving different generations) holistic, and localised solutions to address specific problems or gaps related to hauora, the provision of nutritious kai and whānau access to it. Through the process of engagement, whānau of all ages developed their capabilities to lead healthier lifestyles and impact the lifestyles of others. All of the initiatives had a collective, rather than an individualised focus. Importantly, Te Pūtahitanga o Te Waipounamu's investment in over 550 kaupapa initiatives in five years has created a layered effect, generating ripples of impact that amplify the regeneration and re-institution of whānau self-determination (McMeeking, Leahy & Savage, 2020).

Learning is a situated activity; a process of development through active participation within a particular practice community (Lave & Wenger, 1991). Situated learning can be seen in initiatives such as Koha Kai and the emphasis on strengthening the capabilities of tāngata whaikaha. Through specific learning activities tāngata whaikaha learned how to work together to prepare, cook and eat healthier meals. They were able to gain qualifications supporting transition to employment. Data gathered through the initiative showed how their active engagement in the initiative had strengthened their overall health and wellbeing. They developed pride and confidence through their accomplishments. The impact of such initiatives like Koha Kai has impacted other people's ability to access healthy kai in the community.

***Whānau of all ages developed their capabilities to lead healthier lifestyles and impact the lifestyles of others.***

Through the different initiatives, kai is recognised as an important conduit to whānau hauora. Examples such as Matariki Mushrooms and Kōanga Kai, demonstrate how knowledge about ancestral kai can be passed on in practical ways to all members of the whānau, in ways that improve their pride and confidence in their abilities to grow healthy kai at home. These initiatives involved whānau members of all ages, including mokopuna, tamariki, mātua and kaumātua. At the same time, these initiatives have enabled whānau who were leading change to strengthen their business and social enterprise capabilities and realise their aspirations. For example, Kai Connoisseurs provides a holistic approach to kai through a variety of whānau based activities, supported by a café and catering service. Kai Coach is part of Kai Connoisseurs' social enterprise. It supports whānau to gain confidence working in kitchens, whilst learning about nutrition and meal planning and preparation on a practical level. Through the process, whānau learn the kawa and tikanga of the whare, and work together to strengthen their capabilities to prepare and cook healthier, affordable meals at home.

***Knowledge about ancestral kai can be passed on in practical ways to all members of the whānau, in ways that improve their pride and confidence in their abilities to grow healthy kai at home.***

Importantly, these examples demonstrate how 'solutions' are localised and framed around whānau aspirations, values, beliefs, lived experiences and knowledge systems. This aligns with previous research that illustrates the importance of Indigenous Food Sovereignty efforts for the health and wellbeing of Indigenous communities (Whyte, 2016; Maudrie et al., 2021; Blanchet et al., 2021; Blue Bird et al., 2021; Budowle, Arthur & Porter, 2019; Coté, 2016; Merriam, 2021; Smith & Staines, 2020).



# CONCLUSION

This report adds to the current knowledge base about the role of kai/food and its contribution to the health and wellbeing of whānau and other Indigenous communities. Results emphasise the importance of Indigenous Food Sovereignty efforts and whānau-led self-determination for hauora. More needs to be done to continue this approach and to track the impact and outcomes over time. Table one summarises the key findings related to each research question.

**TABLE 1. KEY FINDINGS**

RESEARCH QUESTIONS	FINDINGS
What do we already understand about the role of kai in the complex lives of whānau and other Indigenous communities?	<ul style="list-style-type: none"> <li>• Food sources are more than just nutrition</li> <li>• Language and culture are sustained through tikanga associated with kai and kaitiakitanga</li> <li>• Mana and manaakitanga are intertwined with kai</li> <li>• Kai is a motivator for collective capability development</li> <li>• Holistic approaches are important for understanding the role of kai in hauora (spiritual, cognitive, physical and social dimensions)</li> </ul>
What are the barriers that prevent whānau from making good food choices?	<ul style="list-style-type: none"> <li>• Absence of choice: Conventional food systems are monocultural and overlook Indigenous food systems</li> <li>• Obesity-Poverty Paradox – easy access to poor quality food at low cost. Cost of healthy, nutritious kai a barrier</li> <li>• Personal stress due to low incomes and lack of time</li> <li>• Conventional food systems do little to develop Indigenous community capabilities</li> <li>• Racial, deficit discourses result in stigma, shame and reduced motivation</li> <li>• Whānau distrust of mainstream health professionals</li> </ul>
What solutions are evident in the literature?	<ul style="list-style-type: none"> <li>• Indigenous Food Sovereignty</li> <li>• Whānau/family/community ownership and self-determination</li> <li>• Inclusion of cultural values and a holistic focus</li> <li>• Inclusion and promotion of traditional kai/foods</li> <li>• Capacity (resource) and capability (skills and knowledge) development related to kai/food production</li> </ul>



RESEARCH QUESTIONS	FINDINGS
<p>What solutions have we seen emerge from the Te Pūtahitanga o Te Waipounamu Wave funding commissioning approach?</p>	<ul style="list-style-type: none"> <li>• Māra kai and Māra rongōā</li> <li>• Mahinga kai</li> <li>• Food production and sales</li> <li>• Wānanga</li> <li>• Nutritional support</li> <li>• Food distribution</li> </ul>
<p>What do these solutions have in common?</p>	<ul style="list-style-type: none"> <li>• Initiatives are localised, drawing on local resources and networks.</li> <li>• Strengths-based, drawing on existing skills and knowledge</li> <li>• Intergenerational collective activity</li> <li>• Holistic focus</li> <li>• Enabled capability and capacity development</li> <li>• Enabled by a flexible commissioning environment</li> </ul>
<p>How can an intergenerational perspective inform the way in which whānau eat?</p>	<ul style="list-style-type: none"> <li>• Importance of access to, and participation in, te ao Māori</li> <li>• Revitalisation of traditional plants and mātauranga</li> <li>• Intergenerational action related to kai and kaitiakitanga strengthened whānau capabilities</li> <li>• Whanaungatanga increased through shared activities</li> </ul>

Analysis has also highlighted opportunities for further research, particularly the need for longitudinal research to track hauora outcomes for whānau over time. Such research would give more insight into the enablers and barriers to whānau access and consumption of healthy kai. Continuation of kai initiatives through targeted funding is highly recommended.

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# APPENDIX 1

## LITERATURE REVIEW METHODOLOGY

The following section explains the literature review process and approach to analysis.

Insights emerged from review of a range of documents. Analysis methods followed integrative literature review protocols. This, "is a form of research that reviews, critiques, and synthesises representative literature on a topic in an integrated way such that new frameworks and perspectives on the topic are generated" (Torraco, 2005, p. 356). It is a method that permits the presence of diverse sources and methodologies (including experimental and non-experimental research) and has the potential to contribute significantly to policy design and evidence-based practices.

Integrative reviews can clarify concepts and review theories by presenting an overview of the present state of a phenomenon. In this way an integrative literature review contributes to theory development. This is done by analysing and highlighting methodological issues and debates, whilst pointing out gaps in current understandings. It provides evidence that has direct applicability to practice and policy (Torraco, 2005).

## SEARCH PROCESS AND TERMS

The following search terms were used to locate relevant documents: health(y) eating, nutrition, interventions, food security/insecurity, hunger, food, poverty, sustain(ability), food access, food self-determination, food sovereignty, obesity, coupled with kai, Māori, Indigenous communities/groups, tribes.

Inclusion of literature sources was conducted through peer review against a set of clear inclusion criteria constructed to align with the research questions. Information on the total number of documents identified and screened was included in an electronic template and reviewed. The template recorded the number of included literature sources and key findings from analysis. Thematic analysis was employed with all included literature sources. Data analysis integrated within literature reviews requires that the data from primary and secondary sources are ordered, coded, categorised, and summarised into a unified and integrated conclusion about the research problem (Cooper, 1998). A thorough interpretation of reviewed documents, along with an innovative synthesis of the evidence, were the goals of the analysis stage. Critical analysis involved deconstructing the topic into its basic elements (for example how kai/food/nutrition and life-style interventions are framed or described; barriers and/or solutions to access healthy foods; as well as the effectiveness of such efforts for different groups). Forty-two sources were reviewed for this work. The table below indicates the type of sources reviewed.

**TABLE 2. LIST OF SOURCES**

Theses/Unpublished academic papers	5
Peer reviewed journal articles	19
Reports	7
Books/book chapters	3
Websites	8
<b>Total</b>	<b>42</b>

It is important to note that additional literature has been included in this report, that was not part of the literature review. This was done to further consider findings.

