

Beyond the Unicorn Eater: Social Approaches to Healthy Eating and Food Security in Aotearoa New Zealand

A Summary Report Prepared for the Agri-food Systems Working Group in the Our Land and Water Toitū te Whenua Toiora te Wai National Science Challenge, for the 'Aotearoa Food Cultures' Programme

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1. Background

There are disparities in Aotearoa/New Zealand's food production and distribution systems that result in food poverty in some cases, and food waste in others. Food insecurity and related issues of nutritionally deficient diets negatively impact on the health and wellbeing of individuals, whānau and wider communities. To sustainably reduce food insecurity, a complex array of interconnected economic, socio-cultural, political and environmental issues must be addressed in a coordinated manner. A more nuanced understanding is required of how culturally informed knowledge systems and conceptual frameworks of "good food" and "healthy eating" influence the dietary choices of individuals, whānau and their communities and the way in which they access, store, cook and consume food.

Increasingly, a plethora of school- and community-based food provision initiatives have arisen that aim to foster optimal health, wellbeing and educational outcomes for students, whānau and wider communities, and to fill the food poverty gaps being experienced around the country. Many of these "healthy eating" programmes are devised and then assessed according to ingredient biochemistry and nutritional content. However, despite the abundance of food grown and produced in Aotearoa New Zealand and the promulgation of such "healthy eating" initiatives, many people still experience food poverty and consume suboptimal levels of critical food groups such as fruit and vegetables.

2. The Research Project

2.1 Overview

A two-phased programme of research (MAUX4022) was funded by the Our Land and Water Toitū te Whenua Toiora te Wai National Science Challenge¹ in 2022-2023. The first phase, summarised in the next section, conceptualised the categories and relationships for food, eating and health, as this tacitly guides the direction of dietary policy in Aotearoa New Zealand. A more comprehensive analysis of this review can be found in Henry & Morris (2023)² and will be explored further in an article in the Journal of the Royal Society of New Zealand's (JRSNZ) upcoming Special Issue on 'Feeding New Zealand people better – from farm to fork'.³

The second phase of the research programme built upon the findings of phase one by reviewing the national and international literature about food insecurity and related "healthy eating" programmes including school- and community-based food provision initiatives. This was followed up by case studies with school- and community-based food providers throughout Aotearoa New Zealand, to improve our understanding of how school and community-based food providers help to address food insecurity in local communities and to better understand factors that hinder or aid their successful implementation.

Hardy et al. (2024a) provide a more comprehensive description of the phase two research, including collective insights for participating organisations and other educational institutions and/or food outreach organisations are provided on factors that contribute to the effectiveness of such food

¹ <https://ourlandandwater.nz/>

²Henry, M., Morris, C. (2023). Between what we eat and what we should eat: Towards a Synthesis Framework. Report prepared for the Agri-food Systems Working Group, Our Land and Water National Science Challenge. School of People, Environment and Planning, Massey University, Palmerston North.

³ Henry, M., Morris, C. (2024, abstract accepted for publication in 2024). What We Should Eat and What We Eat: Towards a Thinking Infrastructure. Royal Society of New Zealand's (JRSNZ) upcoming Special Issue on Feeding New Zealand people better – from farm to fork.

delivery programmes, and ways to mitigate or overcome barriers. Key frameworks and analysis emanating from this second phase of the research are also being published, including Venkateswar et al. (2024)⁴ in the *Royal Society of New Zealand's (JRSNZ) upcoming Special Issue on Feeding New Zealand people better – from farm to fork*; other articles in development include Palakshappa et al.⁵ and Hardy et al.⁶

2.2 Research Phase 1 – Between What We Eat and What We Should Eat: Towards a Synthesis Framework

Henry and Morris (2023) address four key themes in the development of their synthesis framework for conceptualising the relationships between food, eating and health, as summarised below.

2.2.1 Eating as Conceived

The first theme identified by Henry and Morris notes that the state in Aotearoa New Zealand has had long standing concerns with the diet and health of Aotearoa New Zealanders. The character of those problems has changed over time, and consequently so too has the range of policy and programme interventions designed to improve specific matters of concern among a range of different populations. The current nutrition framework articulated through the Food and Nutrition Guidelines represents a particular nutritional territorialisation which has long historical roots. While the advice contained within this framework has changed as the benefits of specific foods have been reassessed, the enduring focus of this assemblage has been guided by the nutricentric logic of identifying 'good' and 'bad' foods, and of promoting the consumption of the former.

2.2.2 What We Eat

The second theme related to how nutrition policy in Aotearoa New Zealand has been framed around what should be eaten to optimise health. Less attention has been paid to what is actually eaten and why. What we eat on a daily basis is rarely the simple product of individual choice. Instead, what is possible to eat, what we actually eat, and what we aspire to eat when we think of eating better (questions of availability, accessibility and affordability), is a day-to-day assemblage framed by wider sets of relationships (culture, capitalism, colonialism) that are historically embedded, ubiquitous and largely taken-for-granted (see Figure 2.1). Our eating is channelled on a day-to-day basis because we eat within food worlds that have invisible walls. In the face of these invisible walls, food policies that rely on the exercise of individual choice are largely irrelevant in changing behaviours.

⁴ Venkateswar et al. (2024, abstract accepted for publication in 2024). Farming to Flourish: building diverse diets, equity and inclusivity into Aotearoa New Zealand's domestic food economies. Royal Society of New Zealand's (JRSNZ) upcoming Special Issue on Feeding New Zealand people better – from farm to fork.

⁵ Palakshappa et al. (draft). The role of social enterprises in fostering community wellbeing (working title). For submission to Journal of Business Ethics.

⁶ Hardy et al. (draft). School- and community-based programmes to reduce food poverty in Aotearoa New Zealand (working title). For submission to Food Culture and Society.

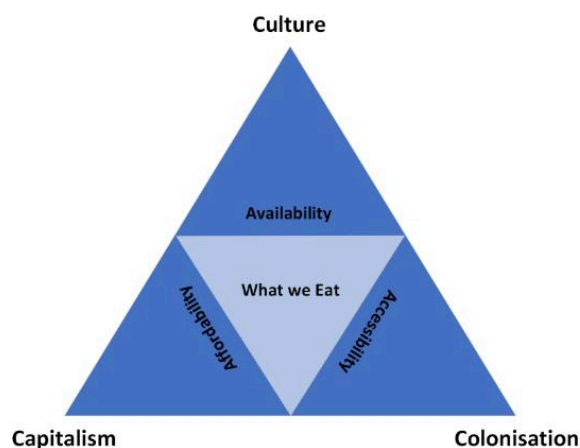


Figure 2.1 What We Eat

2.2.3 Te Ao Māori Health Frameworks

The third theme outlines how the development of health frameworks rooted in Te Ao Māori offer alternative ways of thinking about food and eating relations. Two key ideas flow from this way of thinking about healthy eating. First, hauora is the sum of relationships - corporeal and spiritual, individual and collective - whose combined presence is necessary. Wellbeing cannot be said to exist unless all these relationships are positive; and work in one dimension needs to simultaneously, recognise, maintain and enhance the other dimensions. Second, wellbeing is not simply an individual quality, but rather is enabled through an individual's connection and embeddedness into larger collectivities beginning with whānau. Wellbeing then is as much social as it is individual.

2.2.4 Theme 4: Beyond Nutricentric Individualism

The final theme identified by Henry and Morris (*ibid.*) argues that the traditional agent of implementation for dietary policy has been the responsible, rational individual who has the capacity and desire to prioritise health through nutrition centric eating. This person is a unicorn, and devising policy based on the universality of this subject is doomed to failure. We know that generally people understand what a nutritionally defined 'good' diet is. We also know that people define 'good' diets in terms that are much broader than exist in nutritional advice. Choices about eating do not begin with either individuals or with a blank slate. Policy models need to frame good health and nutrition as the emergent product of economic, political, and cultural wellbeing rather than treating eating as a biophysical relationship between an individual and food. This relationship is synthesised in Figure 2.2.

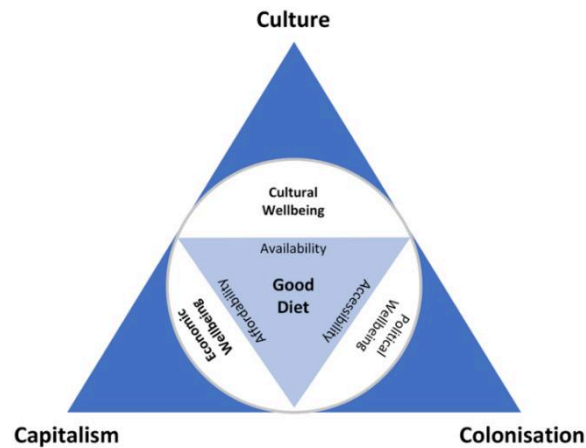


Figure 2.2 Synthesis Framework

2.3 Research Phase 2: School and Community-Based Food Provision

2.3.1 Research Aims

Building on the synthesis framework developed by Henry and Morris (2023, 2024) above, this second phase of the research programme sought to facilitate a more nuanced understanding of food insecurity and related school and community-based food provision and “healthy eating” programmes; and to explore factors that affect the accessibility, affordability, and availability of culturally preferred foods, particularly to groups at greater risk of experiencing food poverty.

2.3.2 Data Collection

A review of the national and international literature was undertaken about New Zealand’s food production and distribution system and related issues of food (in)security, global and national healthy eating frameworks/programmes – with a focus on school and community-based food provision programmes – and assessments of the effectiveness of such programmes.

Interviews, workshops and/or site visits were conducted with various entities involved in food provision through schools and communities at grass-roots levels, including:

- Kura Kai – a voluntary community-based charity operating in 37 schools throughout Aotearoa New Zealand. Fourteen interviews were conducted with Kura Kai managers and volunteer coordinators, teachers, school nurses and counsellors, Māori wardens, industry participants and others regarding sourcing and provision of kai through schools and their extended networks.
- Manawatū-based organisations involved in agri-food network collaborations and innovations including:
 - a school that is delivering meals in-house via the Ka Ora, Ka Ako (KOKA) Healthy School Lunches government-funded programme. This included a visit to the school, a korero with the principal and an interview with the manager of school’s KOKA programme.
 - the Manawatū Food Action Network (MFAN) is a collective of social services, food resilience groups in the environmental sector, Massey academics, health organisations (and other community stakeholders) working together to increase collaboration, education and service opportunities to benefit the local community around issues of food security, food resilience,

food sovereignty and food localisation. They focus their main activities on food banks and sharing sites, food waste capture, harvest capture, food resiliency, localising food, community gardens, community food education, crop swaps, seed banks, composting and more. This included participation in multiple workshops hosted by MFAN, and a kōrero with their coordinator regarding their mahi in the food resilience and sovereignty space and their vision for the future.

-live2give Organics (previously Wholegrain Organics) is a social enterprise organic farm focussed on regenerative principles. This included a farm visit and workshop and a review of reports about their operations and research to learn more about their community collectivist efforts in the food provision space, as well as their innovative regenerative agricultural practices to enhance diverse vegetable production in the face of climate change, whilst enhancing soil quality.

2.4 Key Findings and Recommendations

2.4.1 Availability, Affordability and Accessibility of Good Food

Henry and Morris's (2023, 2024) synthesis framework conceptualised the categories and relationships for food, eating and health. It found that capitalism, culture and colonisation influence food and nutrition policies, dietary choices and holistic wellbeing, and that food accessibility, affordability and availability impact on how "good" – a person's diet is.

Building on Henry and Morris' synthesis framework, the second phase of the research explored school and community-based food provision and "healthy eating" initiatives, with a focus on improving food accessibility for groups at greater risk of experiencing food insecurity.

Food poverty is a complex problem influenced by interrelated issues including accessibility, availability and affordability constraints. From a biological perspective, there are people who regularly experience hunger as they simply do not have enough food, largely due to financial hardship. This links into the biochemical aspect of food poverty, whereby some people's diets contain inadequate amounts of critical nutrients for optimal health because they cannot afford or access the diversity of ingredients required for optimal health. Furthermore, cultural factors impact on whether affordable food, or even free food, is actually consumed if it is unappealing and does not meet peoples' cultural preferences.

Public healthy eating programmes typically target the biochemical aspect of food poverty by promoting consumption of foods from a range of food groups in recommended amounts, with the onus typically put on the individual or their whānau to "make better food choices". However, to be effective, such approaches must also incorporate mechanisms to improve people's access to affordable food of sufficient nutritional content, that meets their cultural dietary needs. To some extent, school and community-based programmes are attempting to address all facets of food poverty to some extent (see the next section).

Food delivery programmes that intentionally plan and then deliver "good food that people want to eat" consider far more than just the nutritional content of the food or meals provided, but also its appropriateness for the people the food is being provided to. This necessitates an awareness of the food norms and preferences of whānau and communities and the attractiveness of the meals at the time of consumption. Additionally, it is critical that people involved in food provision policy development and programme delivery, particularly to people experiencing food poverty, consider the factors affecting peoples' capacity and capability to grow, store, prepare and heat "optimally-

nutritious” meals. For food distribution programmes that are designed for people to take food home to eat, this also requires consideration about the “shelf” life of the food, and whether people have the equipment at home to store or reheat it.

“Good food” that appeals to one person or group may never be consumed by another group. Food cultures and dietary preferences provide a critical role in improving people’s health and wellbeing and reducing their food security. Thus, consideration must be given to how is viewed, from the culturally determined perspective of the cultural groups to whom that food is being provided, in addition to what they consider to be “healthy food” from a nutritional perspective.

While New Zealand’s agri-food system meets the needs of many people, it is failing others who continue to experience food poverty. The resilience and diversity of local, national and international food production and distribution systems influence food accessibility, availability and affordability. This research identified the importance of consistent and reliable provision of food to people who need it. To meet the varied dietary preferences of Aotearoa New Zealand’s increasingly multicultural population, a range of affordable food needs to be produced for domestic consumption by our agri-food sector that meets people’s dietary needs and preferences, that they can then access. Transportation and logistics networks, the food provision industry, and community-based providers play a pivotal role in connecting food that is affordable and desirable with the people who want it.

It is evident that poverty and related hardships are having a profound impact on many people, whānau and communities, which impacts on funds available for purchase of food. Food poverty is interlinked with wider socio-economic issues, and it is critical that they are holistically addressed in a systematic way. There was widespread acknowledgement by research participants of the depth and complexity of food insecurity issues, and the need for prioritisation of government spending on the most critical needs first, such as for food and housing, to ensure most basic needs are provided before other higher-level goals can be considered. Food provision programmes must be designed to consistently meet the diverse food-related needs of targeted groups, including addressing the social, cultural and financial factors that contribute to food poverty.

Diversity of diet becomes a lesser priority to whānau and their communities when they are struggling to provide three meals a day to their children, in which case their focus is on sourcing affordable ingredients within limited budgets. The rising price of fruit and vegetables results in less of such things being included in regular diets. School- and community-based programmes are thus intentionally attempting to build local food resilience and sovereignty amongst whānau and communities, to reduce reliance on costly and unreliable supermarket food suppliers and strengthen personal/community food resilience systems. This is explored more in the next section.

2.4.2 Effective School- and Community-Based Food Provision Programmes

School- and community-based food provision programmes aim to address food poverty in their communities, particularly for people most at risk of food poverty, but often struggle to meet the scale of need. Such programmes are typically voluntary-run, under-resourced, and have the least-defined problems. This research aimed to describe and build understanding of this struggle and identified factors that hinder or help the effectiveness of such initiatives. Our case study research provided huge insights into the food poverty being experienced by some people and groups throughout Aotearoa New Zealand, the significant role that school- and community-based organisations can play in addressing food insecurity, and key factors that contribute to their success.

The case studies explored in this research shared common traits that contributed to their success in food provision, including having: a clear vision and purpose to address food insecurity, requisite leadership and personal attributes, a sustainable customisable operating model where people work

to their strengths and collaborate with others to draw on the resources within their networks, and clearly linked operations to ensure delivery of impact in the community.

Effective school food programmes are well supported by the school principal and other teachers involved in relevant courses and incorporate the initiative throughout the school syllabus and activities, thereby enabling a holistic education linked to the food programme. They are appropriately resourced and run by the “right” people who are passionate about both food and people, and tailor the programme to the food needs and preferences of the particular demographic in their school or community. This reduces food waste and encourages positive participation in the programme. Furthermore, school food programmes were able to facilitate greater impact if they had an in-situ kitchen space in which rangatahi were able – and encouraged – to go if they needed food, or wanted to talk to the teachers/staff in the kitchen about anything that was troubling them, thereby recreating a “safe space” for rangatahi, akin to a “kitchen being the heart of the home” environment at school.

Alternatively, school food programmes are less successful when they are inadequately or inappropriately resourced, have minimal integration of the programme into the school curriculum, and the programme managers have less understanding of the specific food needs and preferences of its community and does not therefore cater to those diverse needs. School food programmes that are designed and then assessed according to the nutritional content of the ingredients, without also taking into consideration the social and cultural components of people’s diets tend to have less uptake of the programme, resulting in reduced consumption of “healthy food”, or indeed reduced consumption of any food provided at school, with resultant food waste.

Schools are well placed to act as community hubs connecting other groups with similar food related initiatives to collaborate and support each other, creating synergistic benefits for all. Involving rangatahi/students in food provision programmes provides mana-enhancing opportunities for them to contribute to their whānau and the wider community, whilst developing life skills through a holistic education that will enhance their own food security into the future. Reconnecting rangatahi and the wider community to knowledge systems about the growing, harvesting, cooking, preserving and consumption of culturally preferred diets also helps (re)-build social connectedness, cultural identity and wellbeing.

Grass-roots efforts to address food insecurity in local communities can foster significant benefits both for the recipients of the food programmes, as well as for the people involved in the delivery of these programmes. Well designed and operated school food programmes deliver significant benefits to rangatahi, their whānau and the wider community, and there are widespread calls for programmes such as KOKA to be continued and even extended to other schools and into the early childhood education sector, where early food habits are established.

Government supports to coordinate school food programmes within regions, and between local growers and school food programmes, such as KOKA, are recommended as a way to reduce the load on school staff while maximising the potential gains from such programmes. Facilitating the collaboration between all groups engaged in local and regional food provision with people linked to schools providing food, would also enable better use of resources and improved outcomes for all.

Government agencies can also support the effectiveness of community-based initiatives by facilitating collaboration between groups operating within the food resilience space; helping to connect people in need of resources with those who have underutilised resources within the community – e.g., underutilised commercial kitchen spaces for bulk cook ups or storage of surplus

food resources; garden spaces; providing requisite expertise in areas such as grant writing, gardening, menu planning and budgeting; and syllabus development in related topics. Government funding should be directed to those groups who are already operating on the ground and have well-functioning distribution networks in place to efficiently get food directly to the people who need it in a timely manner.

3. Future Research

Ongoing research is required to help us better understand the issues facing school- and community-based groups in delivering food to people most at risk of food poverty. Studies to explore how to maximise consumption by target groups of such food provision programmes, including the cultural factors that influence dietary consumption patterns, are also recommended. Further research and policy emphasis is also required to better understand the extent of food insecurity and related social issues, particularly in rural communities, where accessibility can be even more problematic than in bigger cities.

Opportunities for different groups engaged in initiatives to reduce food poverty to come together to share their learnings would help to maximise the uptake of learnings from research such as that reported here about effective models for school- and community-based food provision programmes.

As climate change increasingly impacts on our agri-food system, both in Aotearoa New Zealand and the world, it is also recommended that further research is conducted on the resilience of our food production and distribution systems. It would also be beneficial for future research to explore how local food sovereignty efforts can be better supported to build food security, particularly within people currently at the greatest risk of food poverty, including for localised climate-resilient farming.

4. Outputs from this Research Programme

Outputs from this programme that further explore the frameworks, policy implications and operational learnings for people involved in the agri-food, food security, resilience and sovereignty spaces in Aotearoa New Zealand include:

Hardy, D.J., Palakshappa, N., Venkateswar, S. (2024a). *School- and Community-Based Approaches to Healthy Eating and Food Security in Aotearoa New Zealand*. A Comprehensive Report prepared for the Agri-food Systems Working Group, Our Land and Water National Science Challenge. School of People, Environment and Planning, Massey University, Palmerston North.

Hardy, D.J., Palakshappa, N., Venkateswar, S. (draft, 2024b). School- and community-based programmes to reduce food poverty in Aotearoa New Zealand (working title). For submission to *Food Culture and Society*.

Hardy, D.J., Palakshappa, N., Venkateswar, S., Henry, M., Morris, C. (2024c). *Beyond the Unicorn Eater: Social Approaches to Healthy Eating and Food Security in Aotearoa New Zealand*. A Summary Report prepared for the Agri-food Systems Working Group, Our Land and Water National Science Challenge. School of People, Environment and Planning, Massey University, Palmerston North.

Henry, M., Morris, C. (2023). *Between what we eat and what we should eat: Towards a Synthesis Framework*. Report prepared for the Agri-food Systems Working Group, Our Land and Water National Science Challenge. School of People, Environment and Planning, Massey University, Palmerston North.

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Palakshappa, N., Hardy, D.J., Venkateswar, S. (draft). The role of social enterprises in fostering community wellbeing (working title). For submission to *Journal of Business Ethics*.

Venkateswar, S., Hardy, D.J., Palakshappa, N., McLeod, H. (2024, abstract accepted for publication). Farming to Flourish: building diverse diets, equity and inclusivity into Aotearoa New Zealand's domestic food economies. *Royal Society of New Zealand's (JRSNZ) upcoming Special Issue on Feeding New Zealand people better – from farm to fork.*