



**EDUCATION AND
SOCIAL WORK**

An Analysis of Needs and Opportunities to Inform a Sustainable Food Strategy for the Kaipātiki Project

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EXECUTIVE SUMMARY

Colleagues from the Kaipātiki Project and The University of Auckland partnered on a project to capture the experiences of stakeholders to help identify the people in the local community who are food insecure and to identify ways to connect them with support to address this need. We aimed to establish a gap analysis of: where we have food insecurity in our community; where the interest/opportunities are to address this need; and what are known ways to connect the need with opportunities.

We invited local service providers across five local board areas in Auckland's North: Kaipātiki, Upper Harbour, Devonport-Takapuna, Hibiscus & Bays and Rodney to share information about perceived needs related to food insecurity, actual and possible responses, and ongoing interest in supporting the needs. A total of 25 people participated in 6 online discussions via zoom.

Discussions about where food insecurity is most felt in communities resulted in three interconnected themes: income instability, isolation, and disconnection from soil. The level of access and connection food insecure individuals have to networks and systems will help or hinder their management and experience of these three conditions. Aspirational conversations about what success in food security could look like highlighted five conditions: access to healthy food, relationships with and through food, closed-loop food systems, visible and responsive food provision, and sufficient resources. Each of these five conditions are critical to how communities address barriers within food insecure environments.

In terms of responses currently in place to address food insecurity, participants stated that their communities respond through three major strategies: food security education, utilising social media, and collaborations between food providers. In terms of what we should be doing to address food insecurity, participants explicated several areas for improvement: navigating bureaucratic and funding barriers, embedding values of food security, and innovating in the face of challenges to food insecurity.

A strong theme running through all the discussions, both in current and aspirational response, is the need for supporting a collective approach. Recommendations, informed by the *Water of Systems Change* theory, include:

- structural change, including policies related to land access, waste management and minimisation; practices related to local, sustainable food production; and sufficient resource flows.
- relational change, including effective collaboration between local agencies, sharing knowledge, deepening community connections for upskilling and offering regenerative opportunities.
- transformative change at an individual and societal level to nurture a taonga value for kai, a mindset of '*purpose beyond profits*' and valuing of "*care-fair-share*" principles.

We see these changes, which demand co-ordinated and collective, multi-level responses, as next steps to building food secure communities.

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BACKGROUND

An objective of Kaipātiki Projects' strategic plan is to sustain a community of practitioners that are growing and sharing food. We seek to develop a local food strategy that engages all stakeholders, responds to the local community, and embeds a 'success is succession' approach for ongoing sustainability. To enable this, we implemented a project to determine how we can identify and reach those in our community who are food insecure and those with interest to contribute to an effective food strategy.

FOOD SECURITY

This research was begun by inviting input from the network of Kore Hiakai, a collective that supports community food organisations across New Zealand. Kore Hiakai has longstanding experience in the slower, deeper work of addressing hunger's root causes. They generously shared the mana-to-mana tool, aimed at approaching food inequality in a way that honours Te Tiriti and cultural dignity. This drew together both Kore Hiakai members and other providers, producers, and community agencies locally involved in this space.

Kore Hiakai regards food insecurity as "a state of being without reliable access to a sufficient quantity of affordable, nutritious, sustainably sourced, culturally appropriate food. This includes the right to self-determine how you access food. Provision of food through food parcels, no or low-cost meals provided by charities are examples of responses to food insecurity present in our communities". Food insecurity is limited or uncertain availability of nutritionally adequate and safe foods or limited ability to acquire personally acceptable foods that meet cultural needs in a socially acceptable way. The New Zealand Health Survey (Household Food Insecurity among Children: New Zealand Health Survey) estimates indicate that although the majority of children live in food-secure households, a substantial share of New Zealand children does not. In 2015/16, almost one in five children (19.0%) lived in severely to moderately food-insecure households. This is an important public policy concern, both from the perspective of children's rights and potential adverse health, development, and education consequences.

The report highlights that specific subgroups of children are more likely to live in food-insecure households. Socioeconomic factors (household income in particular) played an essential role in many of these group differences. Children in food-insecure households had poorer parent-rated health status, poorer nutrition, higher rates of overweight or obesity, and a higher prevalence of developmental or behavioural difficulties. Parents of children in food-insecure households were more likely to report psychological and parenting stress, as well as have poorer self-rated health status food for well-being.

The Child Poverty Monitor 2020: Technical Report (otago.ac.nz) - states over half (56%) of children living in families receiving financial assistance don't always have enough healthy food to eat, compared to just 12% of children living in families not receiving financial assistance. The number of hardship assistance grants for food increased from 675,894 in March 2019 to over a million (1,120,733) in the year to March 2020. Kaipātiki Project's Teaching Garden is positioned to support communities to build soil and grow food, increasing their food security and building local community resilience. To reach food sovereignty, Kore Hiakai advocates for "Empowering people, as individuals and as groups, to make their own choices about the food they eat, where it comes from, how it is produced and their relationship to its production".

FOCUS OF THE PROJECT

The project captured the experiences of stakeholders to help identify the people in the local community who are food insecure and to identify ways to connect them with support to address this need. We aim to establish a gap analysis of:

- Where we have food insecurity in our community
- Where the interest/opportunities are to address this need
- What are known ways to connect the need with opportunities

The overarching aim of our project is to develop a local food strategy that enables a community of practitioners who are actively sustaining each other and their places to grow and share food, thereby reducing food insecurity. To achieve this, we aim to co-design an assessment tool that will allow the Kaipātiki Project to identify steps to resource, support and sustain a food strategy. This will create a base to co-create a tool that will support the assessment of community food needs and effective measures to address these needs from local sources.

The research will help identify the people in our community who are food insecure and identify interests, opportunities and effective ways to address this need. This will inform the development of future initiatives. The expected benefits/outcomes include:

- Short-term: A strategy to connect the supply and demand for a sustainable food strategy in the community while reducing their environmental footprint
- Medium-term: A tool to enable the assessment of community food needs and effective measures to address these needs from a local source
- Long-term: Mitigate the impact of children living in food-insecure households while supporting job creation and economic recovery from the Covid-19 pandemic.

METHODOLOGY

We invited local service providers across five local board areas in Auckland's North: Kaipātiki, Upper Harbour, Devonport-Takapuna, Hibiscus & Bays and Rodney to share information about perceived needs related to food insecurity, actual and possible responses, and ongoing interest in supporting the needs. Using a snowball sampling

technique, we approached known local service providers to participate in an individual face-to-face or zoom group interview and asked them to recommend others. These zoom discussions were recorded where practicable. We used *Google Jamboard*® to collect data. *Jamboard* is a digital whiteboard that allows participants to collaborate in real time using either a web browser or mobile application. We additionally designed an online poll to capture participant profiles.

A total of 25 people participated in 6 online discussions via zoom. All participants are engaged in one or more of the 5 local board areas across Auckland's North. Many of them are active across multiple local areas (see Table 1). The participants included managers, volunteers, and staff involved in education and community engagement, from a range of food growers, foodbanks, community houses with food programmes, and school or community gardens. One hui included a researcher. Across all the online hui, experience in the field ranged from two to 10+ years.

Table 1. *Food Security Partner Participants.*

Organisation	Number of Participants	Experience in the sector		
		10+ years	5-10 years	2-5 years
Community House (with food programme)	4		3	1
Food Grower	3		3	
Food bank	8	7		1
School or Community Garden	3	2	1	
Other	7		5	2
TOTAL	25	9	12	4

The questions posed at the hui were as follows:

Scoping the need for food security

- 1) Where in our communities is food insecurity most felt?
- 2) How do we identify and reach people experiencing food insecurity?

Opportunities for success in food security

- 3) How would our communities regard success in food security?
- 4) What barriers prevent us from realising this success?

Responding to food security needs

- 5) What responses are currently in place to address food insecurity, and how well are they working?
- 6) What other solutions would build food security in your communities?

Thematic analysis of the interview data highlighted a preliminary list of key areas of needs and interest.

FINDINGS

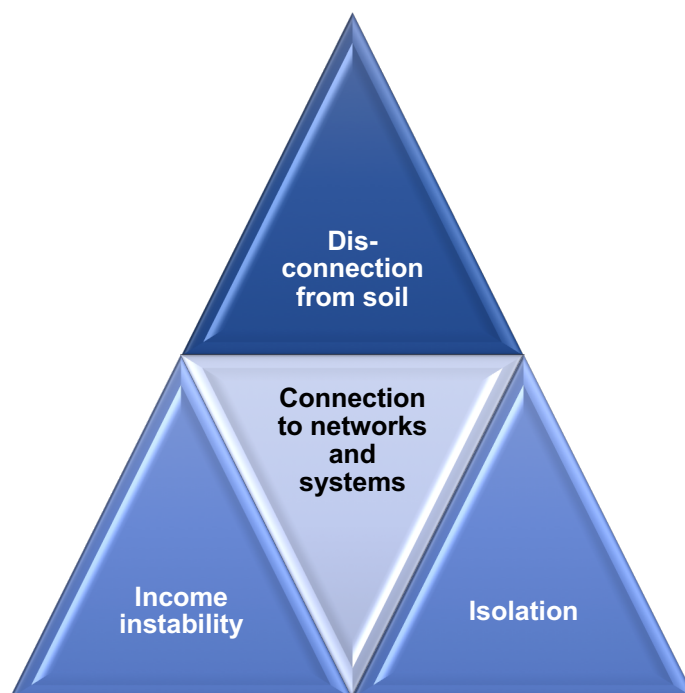
Scoping the need for food security

Discussions about where food insecurity is most felt in communities and how we identify and reach people experiencing food insecurity resulted in three interconnected themes (see Figure 1). Participants mentioned that food insecurity is most felt where each of the following conditions exist and interplay:

- Income instability
- Isolation
- Disconnection from soil

The level of access and connection food insecure individuals have to networks and systems will help or hinder their management and experience of these three conditions. Figure 1. illustrates that income instability, isolation and a disconnection from soil are factors impacting food security, but that these can be mitigated through increasing connections to networks and systems that can support creative solutions. Conversely, a lack of connection can increase levels of food insecurity.

Figure 1. *Factors impacting food security*



Income instability

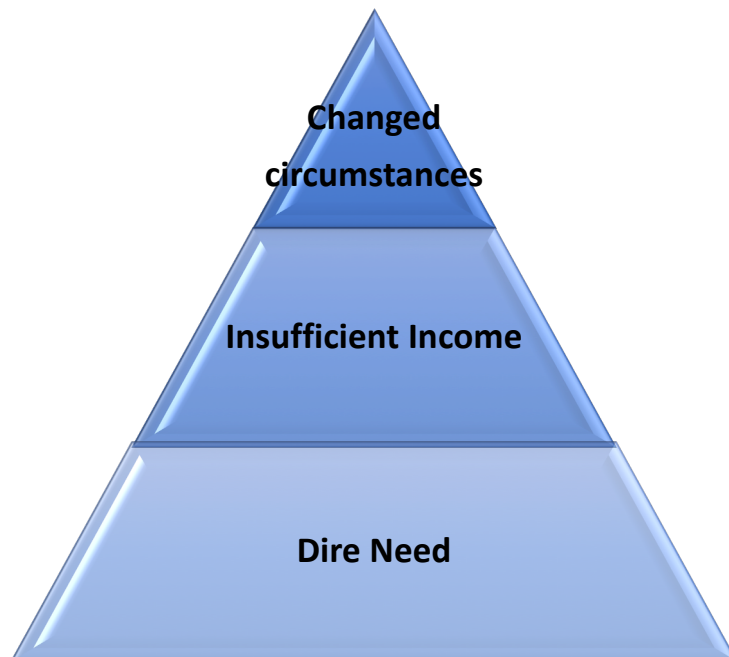
People with limited or lower incomes, lack of money for food, unexpected large bills, insufficient money for rent, being recipients of wage subsidies, and related monetary challenges were at the forefront of discussions on where food insecurity in communities are most felt. An analysis of participant responses highlighted three levels of income instability impacting food insecurity in their communities (see Figure

2). At the bottom level of the needs pyramid, income instability includes those **individuals in dire need**, experiencing high debt, unemployment, homelessness or living rough. Those living these particular realities are almost always going to experience a greater degree of food insecurity. These findings are unsurprising, given income has previously been described as the most significant predictor of food insecurity in New Zealand (Bowers et al., 2009; Carter et al., 2010; Bowers et al., 2009; Reynolds, Miroso, & Campbell, 2020).

The middle level represents those individuals with **insufficient income** (e.g., inadequate money to purchase nutritious food or enough nutrient-rich food for their families, or limited income to enable regular travel to access food). Included in this category were older people living on limited pensions, people in Kainga Ora housing, single-income households, and wage subsidy recipients.

The top level represents those individuals who experience food insecurity related to **changed circumstances** that make them more vulnerable to income instability. In such cases, participants indicated that income instability may be dictated by circumstances like growing and busy families, being newly-separated, refugee families, living with long-term mental illness, disabilities or having poor health, and multi-shift workers. It is important to note that not of these will necessarily have income instability, but it can make individuals and families more vulnerable.

Figure 2. *Food security in relation to income instability*



Isolation

An analysis of participant responses highlighted that isolation was the second main theme potentially impacting food security for communities. Two forms of isolation were prominent: personal and consumer.

Personal isolation pertained to those living alone, with disabilities or long-term mental illness, fear of going outside (due to COVID-19), or being geographically isolated and needing to travel to access food options. Participants viewed individuals belonging to any of these groups as food insecure.

Consumer isolation referred to people in communities experiencing food insecurity because their food consumption choices are constrained by different reasons. It might be that they live in a 'food desert' where there is no immediate access to growing food, the quality of the food available may be low or have poor nutritional value, there is a lack of opportunity to buy local, food delivery is non-existent or expensive, or even that shelves are empty due to COVID-19 supply challenges or buying patterns.

Disconnection from soil

Participants suggested that food insecurity exists where community members experience "a disconnection from soil". Disconnection from soil may be historical (i.e., growing one's own food as an unfamiliar aspect of a person's life trajectory) but can also result from changing circumstances in people's lives. An individual may for instance transition from a home with a garden, or garden access, to a property with no land, thereby seriously limiting their options to access food and therefore widening their disconnection to soil. Connectedness to soil were categorised by two concepts: 1) Gardener's confidence and 2) Consumer confidence.

Gardener's confidence refers to an individual's trust in their ability to grow their food, fostering a greater connection to the soil. Participants indicated that *gardener's confidence* would be higher, potentially decreasing food insecurity, under the following conditions:

- if community members have the time or space to do the work (i.e., growing) properly;
- if community members have knowledge of the best growing practises, including knowledge of healthy soil;
- if community members have access to the appropriate materials (e.g., for growing or cooking food); and,
- if community members have access to suitable soil.

Consumer confidence refers to people's understanding of where the food they eat comes from and how it is grown. Participants stated that food insecurity was high in communities where knowledge around what constitutes healthy food options was

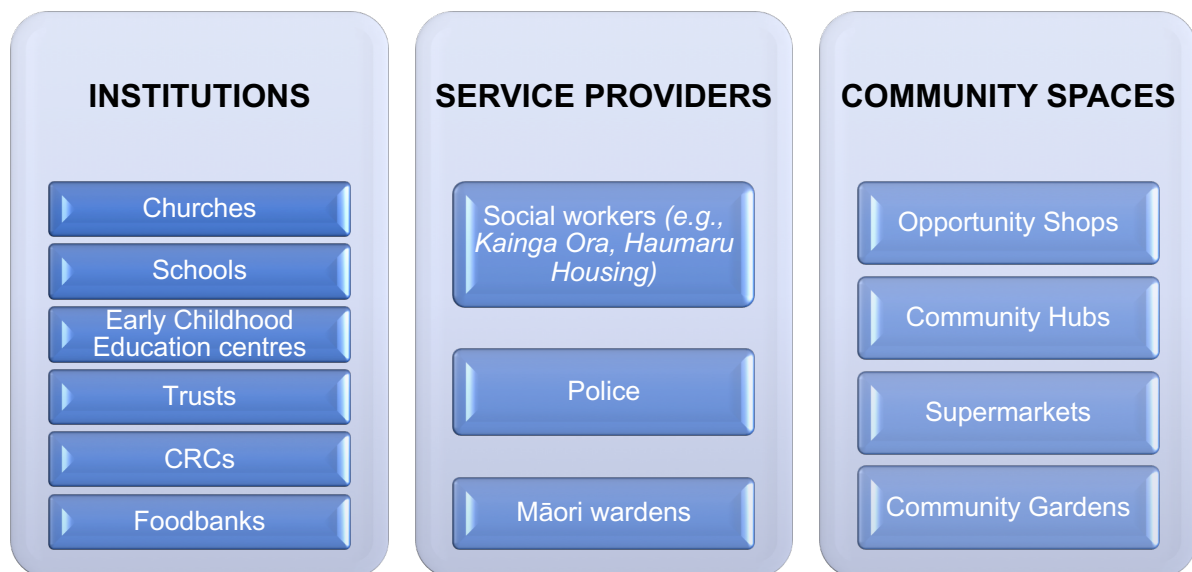
lacking. Similarly, low nutritional food consumption was seen where perceptions of consuming healthier options were associated with higher costs.

Connection to networks and systems

As mentioned earlier, the mitigating factor for any of the three main themes of income instability, isolation or disconnection from soil, is where individuals and families have established connections to agency and institutional supports. This can disrupt the pathway to becoming food insecure. Participants indicated several obstacles to enabling connection with services, including compliance to qualify for support, a growing anxiety and disconnection from schools and community during lockdown and a reluctance to make their needs known. They cautioned that these barriers must be identified and carefully bridged.

Participants listed several institutions, service providers and community spaces as channels to identify and reach people who experience income stability, isolation or may feel a disconnection from soil (see Table 2).

Table 2. Channels to reach people experiencing food insecurity.



Opportunities for Success in Food Security

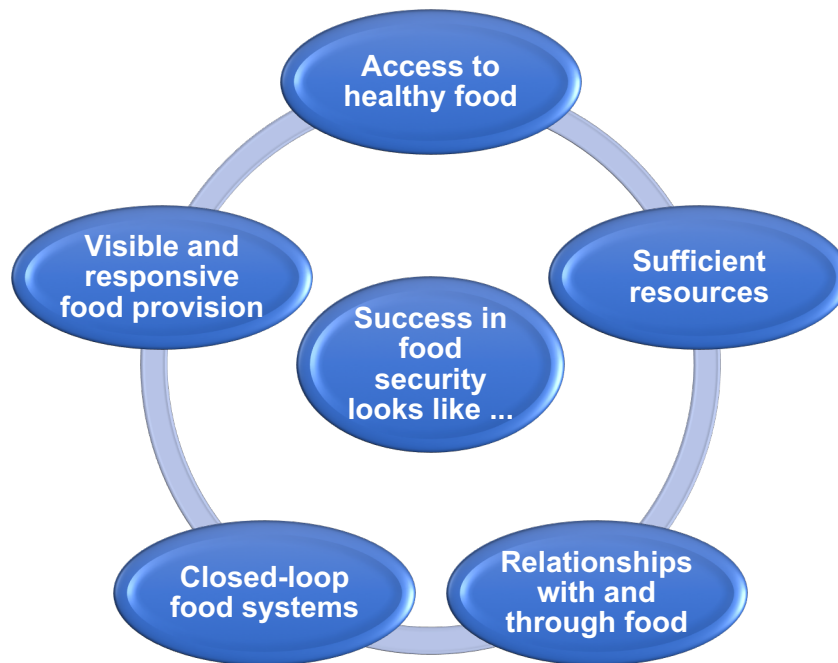
After highlighting the opportunities and barriers to achieving food security, participants focused on the second topic for the hui, and had aspirational conversations about what success in food security could look like for their communities and the barriers that can potentially prevent such success (see Figure 3). The barriers were positioned as the counterpart to the success factors.

When food security has been achieved, participants envisioned five conditions prevailing:

1. Access to healthy food
2. Relationships with and through food
3. Closed-loop food systems
4. Visible and responsive food provision
5. Sufficient resources

Each of these five conditions are critical to how communities address barriers within food insecure environments.

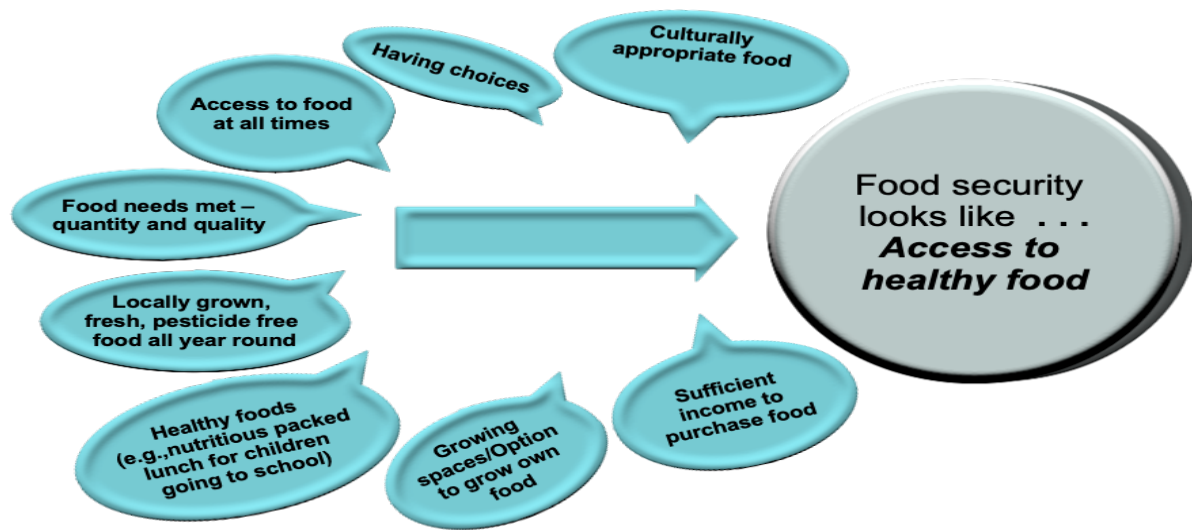
Figure 3. *Opportunities for success in food security.*



Access to healthy food

The first condition, access to healthy food, was a common sentiment across all hui. The eight sub-themes related to healthy food access are illustrated in Figure 4. In particular, participants considered continuous access to adequate quantity and quality food for all, as critical to food security. Participants further articulated having choice and access to culturally appropriate food that meets dietary needs is another important factor. It would also indicate success in food security if communities have access to food that was locally grown (with the option and space to grow their own food) or sufficient income to purchase different or healthier food options.

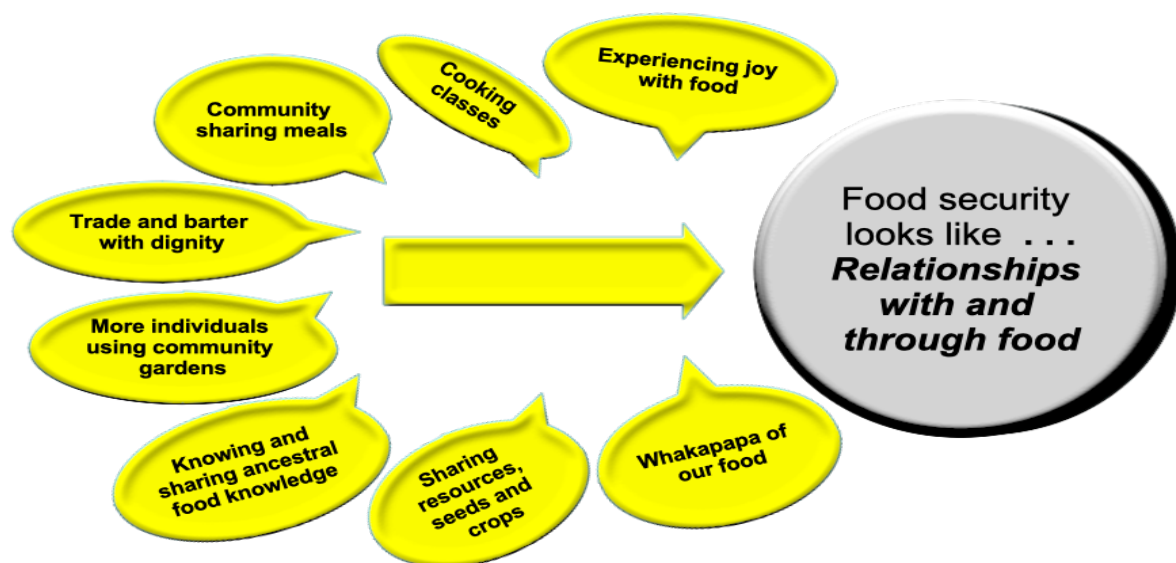
Figure 4. Access to healthy food.



Relationships with and through food

The second condition, relationships with and through food, also comprised eight sub-themes as illustrated in Figure 5. Connecting with others through food, either as a means of enhancing mental and social well-being or to sustain food systems was regarded as important by a majority of participants. Relationships with and through food was explained by participants as experiencing joy and the connection that food can cultivate, knowing where food comes from, and sharing that knowledge, and practices. Participants noted relationships were formed through sharing resources, seeds and crops, which was discussed as a strong component to achieving food security. Success would imply that individuals would know the whakapapa of their food, participate in cooking classes, could trade and barter with dignity and there would be greater use of community gardens.

Figure 5. Relationships with and through food.

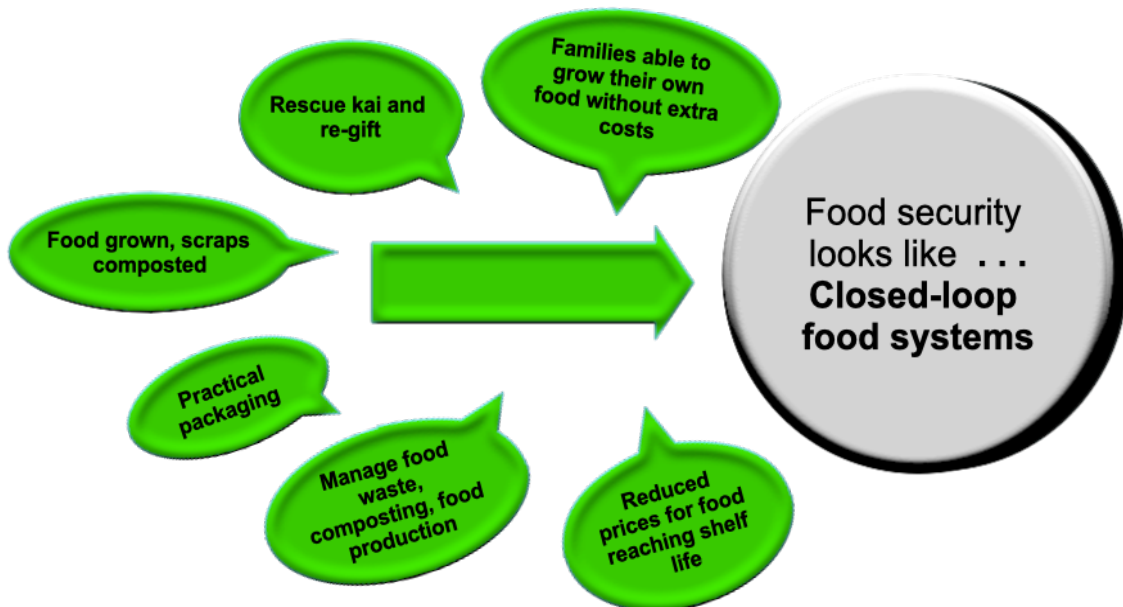


Closed-loop food systems

The third condition, closed-loop food systems, comprised six sub-themes as illustrated in Figure 6. Participants connected closed-loop food systems to climate change, sustainable growing practises and increases in use of and reduction in waste. Closed-loop food systems represent alternatives to the business model that currently exists in terms of the commodification of food.

Participants described features of what a closed-loop food system in a food secure area might include such as kai rescue and re-gifting practises or reducing prices for food nearing its shelf life and knowledge of 'best before' food. Prioritising sustainable packaging along with managing food waste, composting to produce new food that would enable families to grow their own food without extra costs were all elements participants suggested would be part of food secure communities.

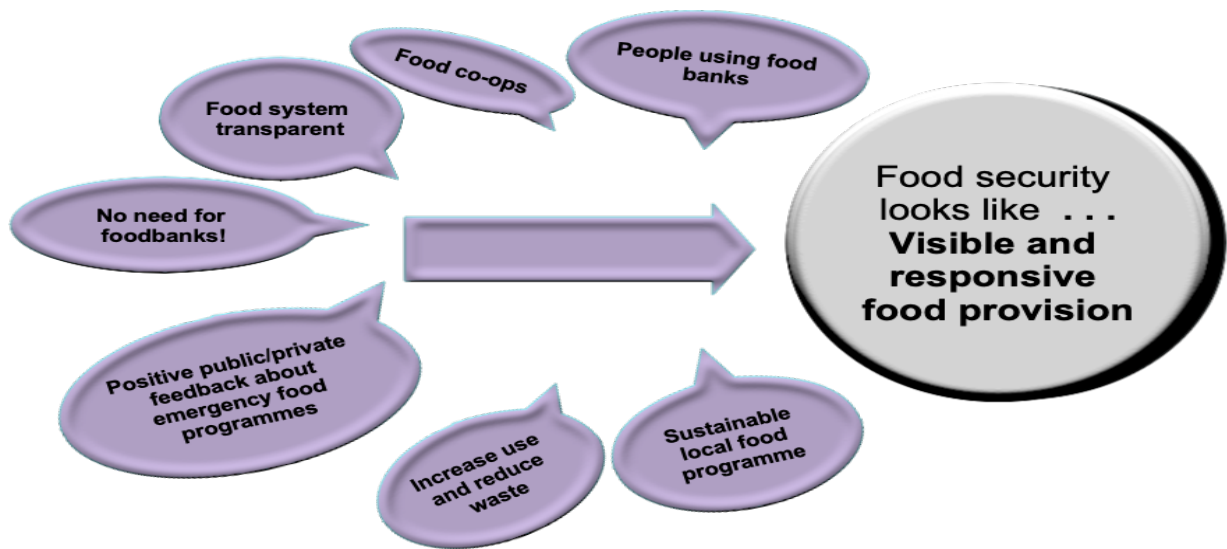
Figure 6. *Closed-loop food systems.*



Visible and responsive food provision

The fourth condition, visible and responsive food provision, comprised seven sub-themes as illustrated in Figure 7. Participants emphasised the necessity of visible and responsive food provision as meaningful to achieving food security in communities. For participants, the visibility of food co-ops and local food programmes alongside a reduction in or elimination of the need for foodbanks represented a food secure state. Responding to food security was also described as requiring a transparent food system and increasing the use and reduction of waste.

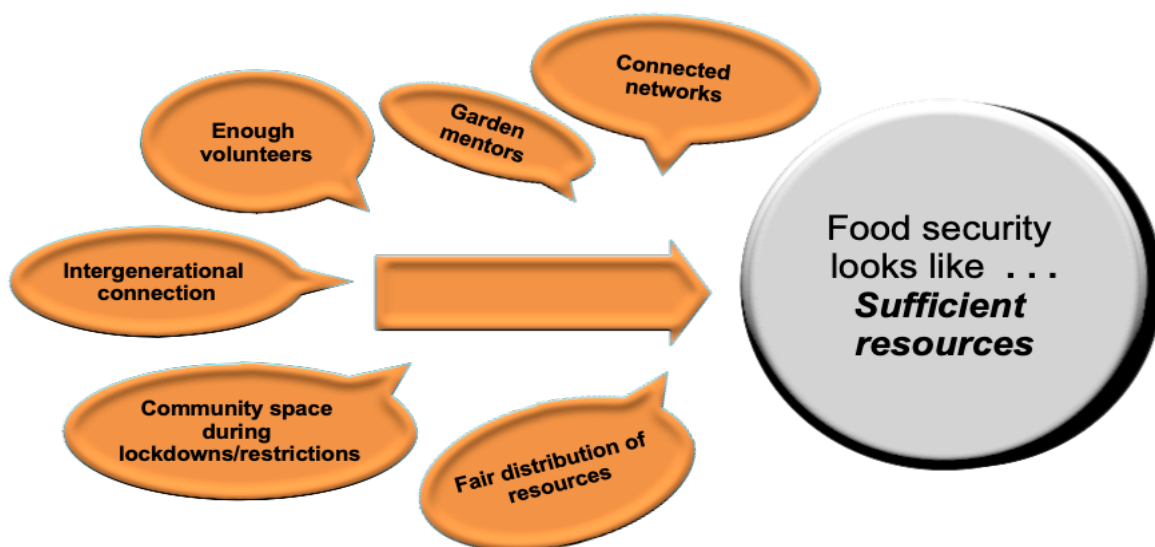
Figure 7. *Visible and responsive food provision.*



Sufficient resources

The fifth and final condition, visible and responsive food provision, comprised six sub-themes as illustrated in Figure 8. To achieve a state of food security in communities, participants across all hui suggested the need for sufficient resources in order to start and sustain closed-loop food systems. To maintain projects such as community gardens, participants identified garden mentors, enough volunteers, and no constraints to access during periods such as COVID-19 lockdowns as necessary resources to achieving food security. In addition, participants highlighted fair distribution of resources and the need for connected networks to obtain resources. Specifically, participants referenced the significance of intergenerational connections as resources for learning and passing on ancestral food knowledge and growing practices.

Figure 8. *Sufficient resources.*



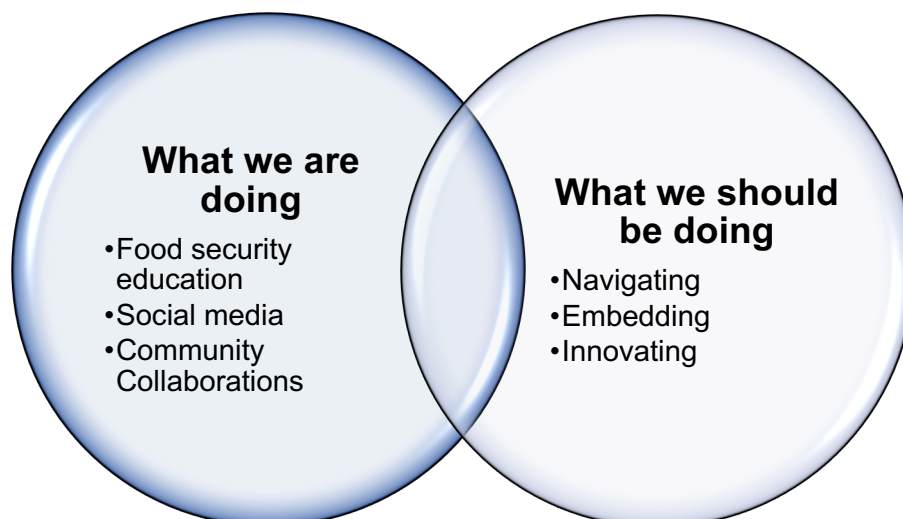
Responding to Food Security Needs

After highlighting the opportunities and barriers to achieving food security, and aspirational conversations about what success in food security could look like for their communities and the barriers that can potentially prevent such success, the third topic for discussion in the hui focused on participants' views about responding to food security needs. Discussions focused on responses currently in place to address food insecurity, how well they are working, and solutions that would build food security in communities.

This resulted in two overarching themes (see Figure 9):

- 1) What we are doing
- 2) What we should be doing

Figure 9. *Responding to Needs.*



What we are doing

In terms of what we are doing, participants stated that their communities respond to food security needs through three major strategies as summarised in Table 3: 1) Food security education 2) Utilising social media, and 3) Collaborations between food providers.

Education includes partnering with institutions (e.g., MSD), sharing food bank information in a given area, and offering educational workshops. Food security education programmes such as Garden to Table exist as an educational effort to particularly reach young people. While both existing community initiatives and food security education efforts are making progress, these are also areas that participants noted could be improved upon and are open to innovative solutions.

Table 3. *Current responses to food security needs.*

Food security education	Social media to share excess	Collaborations between food providers
<ul style="list-style-type: none"> • Partnering with institutions (e.g., MSD), • Sharing food bank information in a given area • Offering educational workshops and programmes 	<ul style="list-style-type: none"> • Magic bean app • Foodprint app • Ollo app • Other social media 	<ul style="list-style-type: none"> • Community gardens • Iwi-based initiatives • Faith-based assistance • Meal programmes <ul style="list-style-type: none"> ○ Community food pantry ○ Garden to table initiatives at schools ○ Foodbanks ○ Food co-ops ○ Op shop seedlings ○ BBCP Community Eats programme ○ Pātaka kai/community food stores

What we should be doing

In terms of what we should be doing to address food insecurity, participants explicated several areas for improvement. An analysis of these responses resulted in three main categories (see Table 4):

- 1) navigating bureaucratic and funding barriers
- 2) embedding values of food security
- 3) innovating in the face of challenges to food insecurity

Table 4. Future responses to food security needs.

Navigating	Embedding	Innovating
<ul style="list-style-type: none"> • Labour to manage gardens and projects • Investment in pilot initiatives • Processes for using community spaces • Greater collaboration between providers • Stronger partnerships with social service agencies • Food provision as part of wrap--around services 	<ul style="list-style-type: none"> • Perceiving food and the land it grows on as sacred • Empowering communities to food sovereignty • Networks conducting placemaking activities around food insecurity • Wrap-around supports • Embedding the mindset of ‘<i>purpose beyond profits</i>’ • Valuing of “<i>care-fair-share</i>” principles 	<ul style="list-style-type: none"> • Sufficient resourcing for education • Awareness of food insecurity and destigmatising of disclosures • Practises for sustainable harvesting in food deserts • Penalties for food waste • Incentives for waste reduction and food growing • Activism for land access • Corporate sponsorship of innovations

Developing practises to more effectively **navigate** bureaucratic and funding barriers was detailed as an important future action to address food insecurity. Navigating funding for labour to manage gardens, facilitation and coordination of growing projects as well as investing in pilot projects were prominent in participant responses. Similarly, participants described navigating bureaucratic processes associated with using community spaces as challenging. They identified a need for greater collaboration between providers, stronger partnerships with social service agencies along with in-built food provision as part of wraparound services.

Embedding values of food security is a second action highlighted by participants. They suggested that these values might translate into communities perceiving food and the land it grows on as sacred. They discussed the importance of empowering communities to food sovereignty, whereby strong networks exists with opportunities for seed swaps and seed banks. Participants envisioned established networks conducting placemaking activities around food insecurity (e.g., food growing and sharing as place for connection and belonging).

Embedding values of food insecurity meant more than access to food for the participants. They envisioned wrap-around supports to better address the various complexities resulting in food insecurity. This process involves embedding the mindset

of 'purpose beyond profits'. The acknowledged that such a mindset is difficult to achieve as this requires balancing the convenience of purchasing against time and efforts of growing your own food. Participants also shared aspirations where greater valuing of "care-fair-share" principles over profitability was imperative for sustainable food programmes. To combat the commodification of food participants suggested a need to look towards an economically viable business model where initiatives could leverage scale while maintaining community ownership.

Innovating in the face of challenges to food security re-emphasised the need for sufficient resourcing, but with specific regards to education in food insecure communities. Participants highlighted the need for enhanced educational efforts around awareness of food insecurity and for destigmatising disclosures of food insecurity. Participants suggested a good starting point for this education is for food security to feature more strongly in the New Zealand school curriculum.

Some participants mentioned innovations in terms of targeted practises for sustainable harvesting, including shared gardening spaces in massive housing developments, rental properties, or rest homes where many live in food deserts. Some suggestions were portable, vertical options and permission for raised garden beds. One participant innovatively suggested a new tenants welcome pack with seedlings and ideas for growing.

Building on these ideas, participants suggested penalties for food waste and incentives for waste reduction and food growing. For such innovations to transpire and be more widespread, activism for access to land was discussed. Participants also touched on the possibility of corporate sponsorship of these innovations.

CONCLUDING COMMENTS

A strong theme running through all the discussions, both in current and aspirational response, is the need for supporting a collective approach. All partners, from first responders to producers, including social and cultural agencies, have a significant part to play, both in meeting immediate need and in supporting changes needed for self-determination. This step will enable solutions that build dignity and sovereignty into the food supply chain.

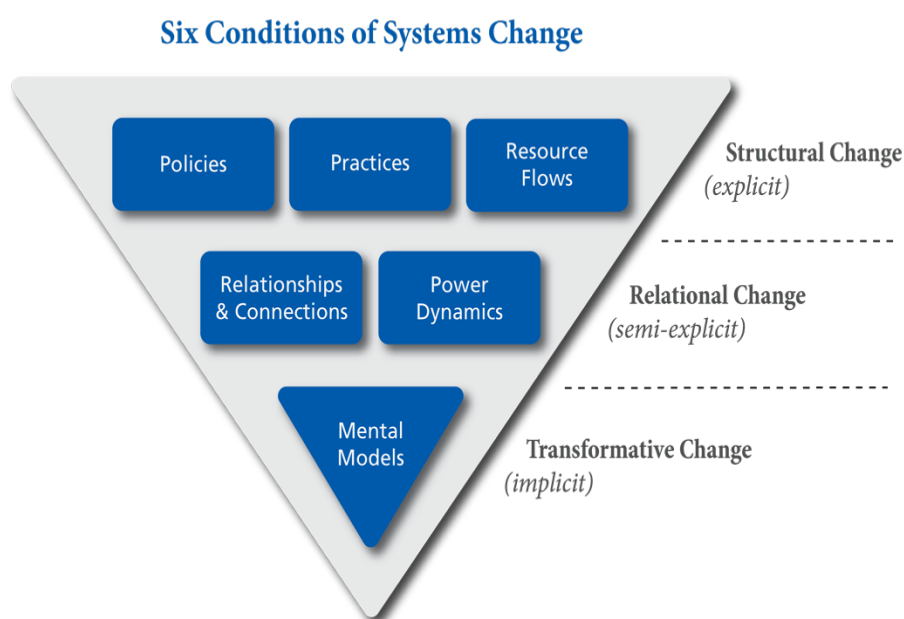
Real change, as supported by the *Water of Systems Change* theory, is determined by six conditions (see Figure 10). These conditions can be mapped against the future responses detailed in this report:

- Innovation is mostly required at the structural change level for policies (*tikanga and kawa*; rules and ways of being) related to land access, waste management and minimisation; practices (*tohungatanga*; what and how we do) related to local, sustainable food production for addressing underlying social inequity and

the ability to choose alternative provision; and for sufficient resource flows (*taonga*; what and how we share).

- Navigation will largely focus on the relational change level (*whanaungatanga*; how we work together) to grow effective collaboration between local agencies with the shared intent toward enabling rather than maintaining. Sharing knowledge, deepening community connections for upskilling, and offering regenerative opportunities with awareness of power dynamics (*rangatiratanga*; who influences and leads) are essential components that look beyond emergency provision and toward self-determination.
- Embedding will require transformative change actions at an individual and societal level (*whakairo*; how we think) to nurture a *taonga* value for *kai*, a mindset of ‘*purpose beyond profits*’ and valuing of “*care-fair-share*” principles as well as place-making activities in food-secure responses, and actions to empower sovereignty.

Figure 10. *Conditions of Systems Change* (Kania, Kramer & Senge, 2018).



We see these changes, which demand co-ordinated and collective, multi-level responses, as next steps to building food secure communities. Locating skill-sharers, funding initiatives that build knowledge and belonging, making land accessible to community, and addressing local provision should become the goals of collaborative concern going forward. In keeping with an approach that supports self-determination, such collaboration should wisely seek direct input from those who experience food insecurity, whether through short or long-term circumstances. Visible and responsive, local and self-generated solutions, must include avenues identified by the vulnerable and to which resources can be committed for provision.

REFERENCES

- Bowers, S., Carter, K., Gorton, D., Heta, C., Lanumata, T., Maddison, R., & Pearce, J. (2009). *Enhancing food security and physical activity for Māori, Pacific and low-income peoples*. Wellington, New Zealand: Clinical Trials Research Unit, University of Auckland; GeoHealth Laboratory, University of Canterbury.
- Carter, K. N., Lanumata, T., Kruse, K., & Gorton, D. (2010). What are the determinants of food insecurity in New Zealand and does this differ for males and females?. *Australian and New Zealand journal of public health*, 34(6), 602-608. <https://doi.org/10.1111/j.1753-6405.2010.00615.x>
- Duncanson, M., Richardson, G., Oben, G., Wicken, A., van Asten, H., & Adams, J. (2020). *Child Poverty Monitor 2020: Technical Report (Child Poverty Monitor Series)*. New Zealand Child and Youth Epidemiology Service. Retrieved from <http://hdl.handle.net/10523/10585>
- Kania, J., Kramer, M. & Senge, P. (2018). *The Water of Systems Change*. FSG. Retrieved from https://www.fsg.org/publications/water_of_systems_change
- Kore Hiakai: Definitions and Descriptions. Retrieved from <https://www.zerohunger.org.nz/resources/definitions>
- Ministry of Health. 2021. *Regional Data Explorer 2017–2020: New Zealand Health Survey (Household Food Insecurity among Children: New Zealand Health Survey)*. Retrieved from <https://minhealthnz.shinyapps.io/nz-health-survey-2017-2020-regional-update>
- Reynolds, D., Miroso, M., & Campbell, H. (2020). Food and vulnerability in Aotearoa/New Zealand: A review and theoretical reframing of food insecurity, income and neoliberalism. *New Zealand Sociology*, 35(1), 123-152. search.informit.org/doi/10.3316/informit.219515053019306