

Supplementary File: Policy Pathway Tables for Ka Ora, Ka Ako

As referenced in: Garton, Riddell, McKelvie-Sebileau, Glassey, Tipene Leach, Rees & Swinburn. Not just a free lunch: a logic model and evidence review for the Ka Ora, Ka Ako | Healthy School Lunch programme. *Policy Quarterly*, May 2023: 75-87.

Table 1. Programme logic model: child-level

Programme aspect	Mechanism	Outcome area	Outcomes (immediate)	Manifestations / Long term outcomes or impacts
Regular provision of kai	Reliable access to lunch every day	Satiety	<ul style="list-style-type: none"> Less stress Improved self-worth Not distracted by hunger (1,2) More energy (3) Eating etiquette (less stockpiling) 	<ul style="list-style-type: none"> Improved wellbeing(4) More engagement in school (presence/attendance, participation /attention, progress/attainment)(3,4) Fewer behavioural incidents(5,6,7,8,9) Improved eating habits (1,4,10,11,12) Improved lifelong earning potential(13,14)
	Wairua / aroha / manaakitanga / kaupapa	Children feel loved and cared for		
Healthiness of kai	More nutritious diet (nutrient intake)	Physical health – growth/healthy weight	<ul style="list-style-type: none"> Better physical functioning (4), stronger immune system Healthier weight & growth (10,13,15,16,17,18,19,20,21) Reduced decayed, missing, or filled teeth (22) Improvements in mood, calmness (2,4,6,11,23,24,25,26) Reduced autoimmune skin irritations (27,28) Improved ability to make healthful choices (12,29,30,31,32,33,34,35,36) 	<ul style="list-style-type: none"> Improved overall wellbeing(2,4,11,23,24,25,26) Sick less often Reduced risk of NCDs & obesity(3,4,15,20) Reduced need/costs of healthcare (now and later in life) (3)
	Developing tastes, attitudes and values toward healthy kai	Oral health Mental health Skin health (immune) Acceptability		
Variety of kai	Exposure to novel kai (including different cuisines, cultures)	Interest and acceptance of different foods	<ul style="list-style-type: none"> Improved ability to make healthful choices (11,12,29,30,31,32,34,35,36) 	<ul style="list-style-type: none"> Better long-term dietary habits (11,12,37)
Engagement with kai (process)	Socialisation & cultural connection	Learning by doing Tikanga around kai	<ul style="list-style-type: none"> Eating etiquette e.g. karakia, eating together (11) Māra kai/growing kai Conscious waste reduction 	<ul style="list-style-type: none"> Social cohesion / whanaungatanga(4,38) Building values around sustainability, conservation of the land / kaitiakitanga Connections with Mātauranga Māori
Universality	All children in school are enrolled, and receive the same kai	Reduced stigma Peer support	<ul style="list-style-type: none"> Reduced shame/whakamā, mental health burden of participation(4,6,15,39,40,41,42,43,44,45) Engagement in trying new foods(11) 	<ul style="list-style-type: none"> Reduced barriers to uptake(9,39,42) Level playing field (12,13,42)

Citations for evidence from New Zealand are indicated in **bold**. Systematic Review citations are *italicised*. Outcomes/impacts without references are theoretical.

Table 2. Programme logic model: whānau-level

Programme aspect	Mechanism	Outcome area	Outcome (immediate)	Manifestations / Long term outcomes or impacts
Regular provision of kai	No cost	Financial (Lower grocery bill) Ability to feed tamariki	<ul style="list-style-type: none"> Improved food security (ability to access enough food) (4,11,14,46) More resources for other whānau needs(11) 	<ul style="list-style-type: none"> Less material hardship (4,6,13,14,15,47) Less stress (4) Dignity, self-worth for parents (4,11)
	No preparing meals	Time/effort of meal preparation	<ul style="list-style-type: none"> More time / less stress (including for older siblings who might be preparing meals) (4,6,11,48) 	<ul style="list-style-type: none"> More time to work (48) Educational impacts (siblings)
	Redistribution of surplus	Food insecure households	<ul style="list-style-type: none"> Extra food may be sent home (6) 	<ul style="list-style-type: none"> Reduced hunger
	Opportunities for employment	Whakamana, empowerment Financial / income	<ul style="list-style-type: none"> Whānau access to (school-time friendly) jobs, living wage 	<ul style="list-style-type: none"> Financial stability (13) Time with kids
Engagement	Child influences rest of household	Diffusion of knowledge and practices, preferences	<ul style="list-style-type: none"> Children ask for healthier food options at home(47,49) 	<ul style="list-style-type: none"> Healthier home eating habits(11,50,51)
	Whānau – school engagement	Interactions with school, e.g. menus	<ul style="list-style-type: none"> Whānau try out new recipes More shared meals (11) Fewer behavioural call-ins 	<ul style="list-style-type: none"> More positive interactions with school
Universality	All children in school are enrolled, and receive the same kai	Reduced stigma	<ul style="list-style-type: none"> Less shame/guilt / whakamā for caregivers(4,14) 	<ul style="list-style-type: none"> Dignity, mana-enhancing (11)
		Child health / wellbeing benefits	<ul style="list-style-type: none"> Less stress, worry(4,11) Comfort in knowing child will get a meal (11) 	<ul style="list-style-type: none"> Whānau wellbeing Lower costs (time/\$) of care (e.g. health, dental)

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Table 3. Programme logic model: school level

Programme aspect	Mechanism	Outcome area	Outcome (immediate)	Manifestations / Long term outcomes or impacts
Provision	Interaction with other food programmes		<ul style="list-style-type: none"> Amplify or opportunity cost (+/-) Less fragmentation /crowding of initiatives (6) 	<ul style="list-style-type: none"> More efficient running of food programmes in schools
	Human resources	Reducing burden on those previously working outside the system to help feed hungry kids	<ul style="list-style-type: none"> Less out-of-pocket spending for teachers (6) Volunteers become employed 	<ul style="list-style-type: none"> Staff & volunteer retention, satisfaction Higher cost of admin /organization /advocacy / brokering (esp small schools, external models) (15,52)
		Admin costs & capacity	<ul style="list-style-type: none"> More staff to manage (esp. internal models in smaller schools) (52) Principal & teacher support required (11) 	
	Facilities	Use, availability, capacity		<ul style="list-style-type: none"> Opportunities (small amounts \$) to improve (11) Challenge/use of existing facilities (11)
Teaching & learning	Classroom environment	Students' engagement (presence, participation, progress) [as per child impacts]	<ul style="list-style-type: none"> Calmer, more focused classrooms(6,7,15,53) Potential distraction if lunches eaten during teaching 	<ul style="list-style-type: none"> Less teacher burnout Enhanced learning outcomes (learning environment) (53) Social cohesion
	Curriculum enrichment	Opportunities for enrichment & student credit placements	<ul style="list-style-type: none"> Suppliers providing nutrition education Employment pathways for rangatahi (2) Context learning & resource development (54) 	<ul style="list-style-type: none"> Food, nutrition & environment learning Holistic approaches to learning & pedagogy (54) Enhanced learning outcomes (content, variety) (11,54)
Engagement	Engagement with curriculum			
	With Mātauranga Māori & Tikanga around kai	Wairua / social wellbeing / knowledge / te reo / tukana-teina	<ul style="list-style-type: none"> Food included in school kaupapa 	<ul style="list-style-type: none"> Support identity, culture, and language of Māori students Align with / threaten schools' tino rangatiratanga (+/-)
	With community	Partnerships	<ul style="list-style-type: none"> Opportunities to partner with farmers, iwi, food outlets, councils, businesses (4,55) 	<ul style="list-style-type: none"> Social cohesion Community engagement Community resilience
	With School Charters/strategic plans, Boards	Alignment Relationships	<ul style="list-style-type: none"> Cost (time/effort) if Boards have low engagement initially (55) 	<ul style="list-style-type: none"> Contribution to strategic directions / commitments (55)

Citations for evidence from New Zealand are indicated in **bold**. Systematic Review citations are *italicised*. Outcomes/impacts without references are theoretical. Outcomes that are expected programme costs are indicated in **red text**.

Table 4. Programme logic model: community level

Programme aspect	Mechanism	Outcome area	Outcome (immediate)	Manifestations / Long term outcomes or impacts
Whole programme (Provision / healthiness / variety / engagement (process) / universality)	Local/Regional procurement	Employment	<ul style="list-style-type: none"> Increase local jobs (especially for women, flexible jobs/family-friendly) (unpublished MoE monitoring data) 	<ul style="list-style-type: none"> Stronger local economies (56) Build/develop local supply chains (56,57,58) Circular economies Community resilience(56) Greener, more sustainable communities (59) Local food varieties (56)
		Business	<ul style="list-style-type: none"> New/expanded businesses Support Māori businesses 	
		Local foodscapes	<ul style="list-style-type: none"> More growing Better packaging, food waste opportunities (investment in facilities) (59,60) Greater community support of schools 	
	Engagement	Connections / relationships		
		Tikanga around kai / mātauranga Māori		

Citations for evidence from New Zealand are indicated in **bold**. Systematic Review citations are *italicised*. Outcomes/impacts without references are theoretical.

Table 5. Programme logic model: food systems level

Programme aspect	Mechanism	Outcome area	Outcome (immediate)	Manifestations / Long term outcomes or impacts
Whole programme (Provision / healthiness / variety / engagement (process) / universality)	Coverage: reaching 25% of ākongā; in areas with greater socio-economic barriers	Equity Kai accessibility	<ul style="list-style-type: none"> More people with access to nutritious kai(61), fewer people going hungry(15,62) 	<ul style="list-style-type: none"> Reduced food insecurity (63,64) Improved equity across health and education outcomes (15,42,62–67)
	Engagement	Food & Nutrition Waste Mātauranga Māori	<ul style="list-style-type: none"> Improved awareness around food and understanding of healthy diet Challenges of waste (change in type) (68) Integration with Mātauranga Māori and cultural activities (+/-) 	<ul style="list-style-type: none"> Improved population nutrition (15) Better systems for managing recycling, waste, surplus lunches? (69) More/limited access to Mātauranga Māori and cultural activities Food sovereignty
	Living wage requirements	Income levels	<ul style="list-style-type: none"> More people earning living wage(68) 	<ul style="list-style-type: none"> Ripple effect of wage standards diffusing to other low paid sectors
	Government procurement for food	New procurement models & levers	<ul style="list-style-type: none"> Purchasing power benefits Market impacts, demand-driven production of food that is Equitable, Healthy, Low waste, Low environmental impact (70) 	<ul style="list-style-type: none"> More environmentally friendly growing (including organic) (71) Investments in regenerative agriculture Packaging requirements Reformulation (unpublished MoE monitoring data) Composting facilities (68) Food waste options (69)
	Food ecosystems	Adaptability, Diversity Relationships	<ul style="list-style-type: none"> Developing relationships and networks at different scales (68,70) 	<ul style="list-style-type: none"> Food system resilience to shocks (68,70)

Citations for evidence from New Zealand are indicated in **bold**. Systematic Review citations are *italicised*. Outcomes/impacts without references are theoretical.

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