Value for Investment analysis of Ka Ora, Ka Ako

Boyd Swinburn, Carolina Mejia Toro, Julian King, David Rees, David Tipene-Leach

Ka Ora, Ka Ako – Value for Investment analysis

- Study funded by *National Sciences Challenge – A Better Start*

- Part of *Nourishing Hawke's Bay: He wairua tō te kai* project evaluating Ka Ora, Ka Ako

- Uses the Value for Investment analysis system developed by Dr Julian King

- Workshops (n=3) with community & government stakeholders to determine 'value', criteria for measurement, and judgements

- Evidence from Ka Ora, Ka Ako evaluations, research and monitoring and international literature on free school lunches (detailed references available)

- Preliminary findings only – Judgements have yet to be validated by stakeholders in a final workshop

The context for Ka Ora, Ka Ako

- **Substantial food insecurity**
  - Currently 21% of children (35% for Māori, 40% for Pacific) live in households with food insecurity

- **Poor childhood nutritional health**
  - Currently 33% of children (45% for Māori, 51% for Pacific) have overweight or obesity

- **Low and declining education achievement**
  - Students with food insecurity are 2-4 school years behind in PISA, TIMMS and PIRLS scores compared to food secure students (adjusted for socio-economic status)

- **Post-Covid economic recovery**
  - Substantial government investment has helped to maintain the economy during and post Covid pandemic with many projects (including Ka Ora, Ka Ako) receiving large funding boosts

Ka Ora, Ka Ako programme roll out

- **Pilot project** initiated to help reduce food insecurity under the Child and Youth Wellbeing strategy in 2019
    - Designed as free, daily, healthy, and universal (to avoid food poverty stigma)
    - Pilot roll out in 3 tranches in primary and intermediate schools in 3 regions in 2020
- **Massive expansion** to one quarter of students using the Covid economic recovery funding from 2021
    - Includes 25% of students in primary, intermediate, and secondary schools with the most disadvantaged Equity Index rankings from 2021
    - By September 2022, it was feeding 225,000 children in 981 schools (now >1000)
- **Evaluations** – MoE funded 3 impact evaluations, 2 kaupapa Māori evaluations, nutrition analysis, carbon footprint, routine school and supplier monitoring data; independent evaluations and studies

Purposes of Ka Ora, Ka Ako (based on Cabinet papers)

1. Alleviate hunger in schools (and reduce material hardship in disadvantaged households)

2. Improve child nutrition (and, long-term, influence food choices in adulthood and health outcomes)

3. Increase quality, local job opportunities (including supporting Covid economic recovery)

4. Reduce barriers to education (and, medium to long term, improve education outcomes)

8-step process for Value for Investment analyses

DESIGN

EVALUATION

Understand the program	Criteria	Standards	Evidence needed	Gather evidence	Analysis	Synthesis & judgement	Reporting
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**

For example:

Context

Stakeholders and users

Needs

Questions

Theory of change

Value proposition

Context-specific definitions:

Criteria (aspects of good resource use and value creation, e.g., equity, cost-effectiveness, effectiveness, efficiency and economy)

Standards (levels of good resource use and value creation, e.g., excellent, good, adequate and poor)

What evidence is needed and will be credible to address the criteria and standards?

What methods should be used to collect the evidence?

Including economic methods of evaluation where feasible and appropriate

---

Descriptive analysis of each stream of evidence

Causality/ contribution

Bring the streams of evidence together

Evaluative judgements using the criteria and standards

For example:

How is value created, for whom?

How well are resources used?

Is enough value created?

How can more value be created?

inter-disciplinary | mixed methods | evaluative reasoning | participatory

VALUE PROPOSITION: For Ka Ora, Ka Ako

From Hawke's Bay community stakeholders and Ministries of Education and Health

IMPROVED HEALTH AND WELLBEING

Through:
- Alleviating hunger at school
- Improving eating patterns of students and whānau
- Improving access to healthy foods
- Helping students to attain healthy growth
- Improved diet-related health outcomes (dental health, NCD risks)
- Improving mental health
- Improving mana and self-esteem
- Improving cultural identity by:
  - embedding Mātauranga Māori,
  - preventing poverty stigma,

IMPROVED LEARNING OUTCOMES

Through:
- Alleviating hunger at school and improving students' and whānau food security
- Improving students' nutritional status
- Targeting schools most in need
- Reducing the stigma of poverty (through universality design)
- Embedding manaakitanga and environmentally-sensitive nutrition education in the curriculum.
- Increasing educational attainment and classroom engagement
- Improving attendance through removing food insecurity-related barriers and improving motivation
- Increasing high-school retention

IMPROVED LOCAL ECONOMIES AND COMMUNITY COHESION

Through:
- Investing in distribution infrastructure and economically viable systems to include local food in lunches
- Enacting procurement policies to support sustainable and local content of school lunches and including Iwi procurement

IMPROVED ENVIRONMENTAL SUSTAINABILITY

Through:
- Embedding sustainability considerations in meal planning
- Embedding sustainability in procurement and contract policies
- Reducing packaging and food waste (including collaboration with food rescue organisations)
- Linking to education about sustainability
- Including more locally produced foods
- Supporting more small-scale producers

A healthy, tasty, sustainable, equitable, free school lunch system that contributes to improving food security, nutritional health and wellbeing, learning outcomes, environmental sustainability, and local economies and communities.

5-E framework for value proposition

ECONOMY
- Resources are well managed through procurement/provision/distribution policies and practices
- Fair balance of cost to govt vs quality of lunches, pay for staff and profit for providers

EFFICIENCY
- Certainty of continuity of the programme
- Productive delivery (delivering healthy, safe, sufficient, locally-based meals, on time, within budget)
- Optimal level of food surplus and minimal level of food and packaging waste
- Efficiencies in design and continuous quality improvement systems in place
- Systems in place to prioritise local sustainable procurement and meal planning

EFFECTIVENESS
- Alleviating hunger at schools
- Healthy eating (lunches are healthy, safe, and high quality; promote healthy eating habits and food culture)
- Improved diet-related outcomes (mental health, healthy weight, dental health,)
- Reduced financial burden on disadvantaged households
- Strengthened local economies (local employment at living wage, local and Iwi-centred procurement and distribution)
- Reduced barriers to education and improved long-term educational outcomes (attendance, classroom engagement, educational attainment, high-school retention, curriculum links including mātauranga Māori, sustainability and nutrition)
- Improved mana and self-esteem
- Improved community cohesion (whānau engagement with schools, improved cultural identity through food)
- Increased food system resilience (% local food in lunches, strong and short supply lines, access to healthy affordable foods)
- Lunch menus, packaging and operations are sustainable
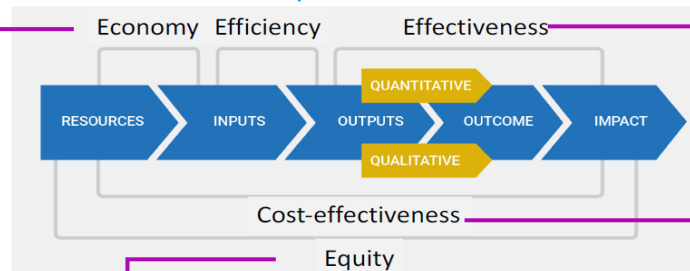
EQUITY
- Across schools: the programme resources and targets schools to reach the students most in need
- Within schools: design minimises food poverty stigma
- Provisions for tailoring to school needs with policies and support systems for smaller schools and small-scale suppliers

COST-EFFECTIVENESS
- The programme creates more value than it consumes based on break-even analysis of monetisable investments and benefits, and qualitative consideration of intangibles

Central diagram:

What did we put in?   What did we get out?

Economy   Efficiency   Effectiveness

RESOURCES → INPUTS → OUTPUTS → OUTCOME → IMPACT

QUANTITATIVE

QUALITATIVE

Cost-effectiveness

Equity

Was it worth it?

Standards

Standard	Generic definition
Excellent	Meeting or exceeding all reasonable expectations/targets bearing in mind context. Room for incremental improvements.
Good	Generally meeting reasonable expectations/targets, allowing for minor exceptions. Some improvements needed.
Adequate	Not meeting expectations/targets but fulfilling minimum requirements and showing acceptable progress overall. Significant improvements needed.
Poor	Not fulfilling minimum requirements or not showing acceptable progress overall. Urgent improvements needed.

1. Alleviating hunger at school

- Large reductions in hunger, especially among food insecure students; [strong support from international literature from high income countries]
- **Provisional assessment**: Excellent

2. Healthy eating

- Lunches are nutritious and 78% of nutrients meet >1/3 of daily requirements; high food safety; quality measures in place for acceptability, age-appropriateness, and culturally appropriateness; food quality KPIs in provider contracts; qualitative evidence and anecdotal evidence of some improvements in eating habits and opportunities for food cultural practices (tikanga and manaakitanga); [international literature shows improved long-term eating behaviours]
- **Provisional assessment**: Excellent

3. Improved diet-related outcomes

- Large improvements in mental health and wellbeing indicators, especially among food insecure students (9-20% improvements); no NZ data on healthy weight; no discernible impact on dental health in Hawke's Bay; [international literature supports mental health outcomes, potential effect on weight and growth]

- **Provisional assessment:** Good (excellent for mental health)

4. Reduced financial burden on disadvantaged households

- Annual household savings between $1000 (1 child in primary school) and $5000 (3 children in secondary school); qualitative findings of reduced hardship, food insecurity and time burden from focus groups and interviews with whānau; [international literature strongly supports these findings]

- **Provisional assessment**: Excellent

5. Strengthened local economies

- >2,455 new jobs created by March 2022 (>½ fulltime, all living wage); >180 business providers; Māori business providers supply 126 schools + iwi/hapu model supplies 40 schools; estimated 18% of funding returns to local communities through employment, rising to 36% with a local procurement model; technical support for small businesses; [international literature in high-income countries supports these findings]

- **Provisional assessment:** Excellent

6. Reduced barriers to education and improved long-term educational outcomes

- Qualitative studies report reduced barriers to attendance and classroom engagement. After programme introduction, schools reported positive shifts in student attendance (59-64%), student engagement (73-83%), student behaviour (66-74%), student achievement (46-53%). Interim evaluation showed no difference in school absenteeism but 'deep dive' evaluation found extra 3 days/year attendance for underserved children; strong impact (=2-4 years learning) of food insecurity on PISA , TIMSS, PIRLS scores; no NZ data on education outcomes or high-school retention; few formal curriculum links [international literature strongly supports improved school engagement and long-term improved education outcomes]

- **Provisional assessment**: Good (but long-term data on educational outcomes needs to be collected)

7. Improved mana and self-esteem

- Qualitative evidence for the programme being mana-enhancing, promoting self-esteem and the universality design prevents food poverty stigma; improved mental health outcomes (9-20% in food insecure students); [international literature supports these findings]

- **Provisional assessment:** Excellent

8. Improved community cohesion

- Qualitative evidence of increased whānau/hapu/iwi engagement with schools (family-friendly employment, hapu/iwi provider models); provider engagement with school and students in their KPIs; [international literature supports the potential for increased community engagement with schools and strengthened community cohesion]

- **Provisional assessment**: Good

EFFECTIVENESS:

9. **Increased food system resilience**

- Likely stronger 'local food ecosystems'; ~90% of schools supplied by local providers; no data on % of local food of lunches; no data on impact on stimulating community access to healthy, affordable foods; potential for food resilience in emergencies. [international literature supports evidence for stimulating relationships, diversity, adaptability, local food system resilience]

- **Provisional assessment**: Adequate (but more data is needed on local supply and food ecosystem)

10. **Lunch menus, packaging, and operations are sustainable**

- Sustainability KPIs in 2024 supplier contracts for waste minimisation plan and measurement of food and packaging waste to landfill; resources on website; No guidelines on sustainable menu planning; [international literature shows the power of the procurement policies on increasing food system sustainability]

- **Provisional assessment**: Adequate (but menu guidance, supplier support, and procurement policies for sustainability are needed)

11. Resources are well managed through procurement/provision/distribution policies and practices

- Adherence to the Govt procurement policy 'Achieving Broader Outcomes from Government Procurement' eg involvement of NZ businesses in contracts (including Māori, Pasifika, and regional businesses, and social enterprises); >8% contracts to Māori businesses; living wage for catering contracts; assessing and reducing GHG emissions and waste.

- Multiple internal policies (eg 'Managing performance issues with external suppliers') and relationship management processes with suppliers

- **Provisional assessment**: Excellent

12. Fair balance of cost to govt vs quality of lunches, pay for staff, and profit for providers

- Lunch quality: very rare complaints on menu appeal (88) and quality (201) since Nov 2021 (from ~1M lunches/week)

- Pay for staff: Employment at least at living wage (procurement provisions)

- Profit for suppliers: Close calibration of pricing/lunch each term to inflation

- Flexibility: Options for small and remote providers

- **Provisional assessment**: Excellent

EFFICIENCY: 'How well are inputs converted into outputs?' 1/3

13. Certainty of continuity of the programme

- Programme funded year-on-year from Covid recovery funding with no certainty of ongoing funding; substantial school and provider feedback that lack of continuity is a major barrier to investing in systems, people, supply chains, and equipment for improved efficiency.

- **Provisional assessment**: Poor

14. Productive delivery of healthy, safe, sufficient, appealing, locally-based meals, on time, within budget

- Lunches meet nutrition guidelines; lunches mostly provide >1/3 nutrient needs; provision for special diets; food safety systems and all suppliers meet standards; standards on sufficient portions and student acceptability; rare food safety/ suitability incident reports (56) ; ~90% of schools supplied by local providers; rare incident reports on late deliveries (91); high ratings of programme success from schools (4.5/5) and suppliers (4.7/5); detailed logistics for delivery for each supplier; staying within budget allocations despite inflation increases in costs.

- **Provisional assessment**: Excellent

15. Optimal level of food surplus and minimal level of food and packaging waste

- School surveys: Mean food surplus (untouched lunches) now <10%; Of the surplus, 58% to students in need, 21% to food rescue, 9% managed by supplier, 11% other.
- Provider surveys: Mean food surplus <5%. Of the surplus, 56% is stored/distributed by schools, 28% to food rescue organisations, 6% to landfill, 10% other.
- Public food service sector suggested surplus should be ~7%
- Food waste (part eaten lunches) and packaging waste to landfill: no data, but included in new supplier KPIs
- New systems implemented for more closely matching the number of lunches with the number of students expected on the day and measuring surplus lunches daily
- All providers have waste minimisation plans and multiple resources and guidance materials available on Ka Ora, Ka Ako website
- **Provisional assessment**: Excellent

EFFICIENCY: 'How well are inputs converted into outputs?' 3/3

16.Efficiencies in design and continuous quality improvement systems in place

- Within-school universality (provision of lunches to all students) is a highly efficient design.

- Monitoring surveys of schools and providers each term (eg uptake, surplus, satisfaction); detailed contracts and KPIs for providers with performance management provisions; substantial technical support; incident reports; complaints register and processes; regular MoE monitoring (eg absenteeism, stand downs); programme evaluations (4 completed, 1 near completion); nutrition evaluation; menu reviews against standards; adjustment of per lunch payments each term based on inflation.

- **Provisional assessment**: Excellent

17.Systems in place to prioritise local sustainable procurement and meal planning

- Some sustainability provisions in the provider contract KPIs (waste minimisation plans, surplus and waste monitoring); carbon footprint of lunches completed; sustainability support materials and guidelines on Ka ora, Ka Ako website; no regular assessments of menus.

- **Provisional assessment**: Good (sustainability of menus needs more focus)

EQUITY: 'How fairly are benefits distributed?' 1/2

18. **Across schools: the programme resources and targets schools to reach the students most in need**

    - Programme design uses Equity Index to identify the schools with the most disadvantaged students; 25% of students attend eligible schools; the programme is not stopped if a school's Equity Index rises above the 25% threshold.

    - The majority (~60%) of students from households with food insecurity are NOT covered by the programme.

    - **Provisional assessment**: Adequate (good given the budget, but most students in need across NZ miss out on the lunch programme)

19. **Within schools: design minimises food poverty stigma**

    - Universality design (provision of lunches to all students within the school) minimises food poverty stigma.

    - **Provisional assessment**: Excellent

20.Provisions for tailoring to school needs with policies and support systems for smaller schools and small-scale suppliers

- Several delivery models available and flexibility in design, particularly for schools with challenging circumstances (eg remoteness, special needs schools).

- Support systems for schools in setting up their model and tailoring to school needs.

- Support systems and flexibility for small suppliers (eg training, sourcing expertise like nutrition, reducing administrative burden)

- Very little negative feedback in school and provider surveys on design and support issues apart from some push-back on programme rigidity around events (eg Matariki, cultural days)

- **Provisional assessment:** Excellent

COST-EFFECTIVENESS:

'How much impact does the programme have relative to the inputs invested in it?'

21. The programme creates more value than it consumes based on break-even analysis of monetisable investments and benefits, and qualitative consideration of intangibles

- Investment of ~$325M/year

- Monetisable benefits depend on time horizon; formal analyses not done for Ka Ora, Ka Ako; [international evidence: Canadian analysis suggests a 2.5-7x benefit, Swedish study found substantial health gains and long-term income for students exposed to the programme].

- Many intangible benefits, eg 20% increase in mental wellbeing among the students with food insecurity

- **Provisional assessment:** Adequate (but needs NZ cost-effectiveness analyses)

Preliminary assessments of Value for Investment for Ka Ora, Ka Ako

DOMAINS	CRITERIA (primary outcomes in red)	ASSESSMENT
EFFECTIVENESS	Alleviating hunger at schools	EXCELLENT
	Healthy eating (lunches are healthy, safe, and high quality; promote healthy eating habits and food culture)	EXCELLENT
	Improved diet-related outcomes (mental health, healthy weight, dental health)	GOOD
	Reduced financial burden on disadvantaged households	EXCELLENT
	Strengthened local economies (local employment at living wage, local and Iwi-centred procurement and distribution)	EXCELLENT
	Reduced barriers to education and improved long-term educational outcomes (attendance, classroom engagement, educational attainment, high-school retention, curriculum links including mātauranga Māori, sustainability and nutrition)	GOOD
	Improved mana and self-esteem	EXCELLENT
	Improved community cohesion (whānau engagement with schools, improved cultural identity through food)	GOOD
	Increased food system resilience (% local food in lunches, strong and short supply lines, access to healthy affordable foods)	ADEQUATE
	Lunch menus, packaging and operations are sustainable	ADEQUATE
ECONOMY	Resources are well managed through procurement/provision/distribution policies and practices	EXCELLENT
	Fair balance of cost to govt vs quality of lunches, pay for staff and profit for providers	EXCELLENT
EFFICIENCY	Certainty of continuity of the programme	POOR
	Productive delivery (delivering healthy, safe, sufficient, locally-based meals, on time, within budget)	EXCELLENT
	Optimal level of food surplus and minimal level of food and packaging waste	EXCELLENT
	Efficiencies in design and continuous quality improvement systems in place	EXCELLENT
	Systems in place to prioritise local sustainable procurement and meal planning	GOOD
EQUITY	Across schools: the programme resources and targets schools to reach the students most in need	ADEQUATE
	Within schools: design minimises food poverty stigma	EXCELLENT
	Provisions for tailoring to school needs with policies and support systems for smaller schools and small-scale suppliers	EXCELLENT
COST-EFFECTIVENESS	The programme creates more value than it consumes based on break-even analysis of monetisable investments and benefits, and qualitative consideration of intangibles	ADEQUATE

Summary

- **Summary**
  - **21 assessment areas:** **12 Excellent; 4 Good; 4 Adequate; 1 Poor**
  - Overall, very good performance with many improvements underway
- **Main areas for improvement:**
  - Get programme onto a secure funding system
  - Build in sustainability through menu planning and procurement policies
  - Undertake a formal cost-effectiveness study
  - Include monitoring long term educational and health outcomes
- **Implications**
  - Strong Value for Investment credentials means the current programme should not be cut and policy work should examine potential scale-up to cover all children