

School Lunch Project Evaluation: Final Report 2024

FINAL EVALUATION FINDINGS FROM
THE 2022-23 SCHOOL LUNCH PROJECT

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Photography

The photographs of students used in this report have been provided by School Food Matters with permission. These students were not involved in the evaluation of the School Lunch Project.

Executive Summary

Background

The Tasmanian State Government initially committed \$1.52 million in 2021 to provide cooked school lunches to students at 30 government schools over two years (15 commencing in 2022 and an additional 15 commencing during 2023). The School Lunch Project is led by School Food Matters, a Tasmanian non-government organisation supporting school communities to promote and provide nutritious food. The project builds on a previous evaluation of a pilot project delivered over 20 days in three Tasmanian schools in 2020.

The Menzies Institute for Medical Research (Menzies) has undertaken a developmental evaluation of the School Lunch Project during its initiation and development phase. As a developmental evaluation the purpose is not to draw definitive conclusions about the effectiveness or impact of the project but to determine if the project has achieved its intended outcomes and to contribute to the project's ongoing development and refinement.

Schools could choose to prepare the meals from scratch using supplied recipes and ingredients or have meals prepared by a central kitchen (run by Loaves and Fishes Tasmania, a not-for-profit Tasmanian emergency food relief provider) and delivered to the schools.

Two thirds of schools (N=20) chose the centralised model. Lunches were served one to four days per week. The number of students receiving meals ranged from one class to the whole school.

Twelve of the 30 schools participated in a detailed evaluation (seven primary schools, two secondary school, three district schools) in 2022–23. Data were collected via surveys, interviews and discussion groups from parents, students, teachers and other school staff, principals and key stakeholders from School Food Matters, Loaves and Fishes Tasmania, the Tasmanian Department of Health (DoH), and the School Lunch Project advisory group. The 18 schools not selected for detailed evaluation were invited to provide basic information through a principal survey and/or interviews.

To assess the impact of providing cooked school lunches on student attendance and wellbeing, all 30 School Lunch Project schools were matched with 30 comparison schools and invited to provide consent for the Department for Education, Children and Young People to provide daily attendance data (2018–23) and Student Wellbeing and Engagement Survey data (2019–23). Seventeen School Lunch Project schools and 11 comparison schools provided consent.



Key findings

The School Lunch Project was well received by the schools with all those involved in the delivery of the project having a shared vision, and commitment to feeding students well at school. All stakeholders demonstrated flexibility and adapted to changing circumstances which proved to be critical for successful implementation.

The adoption of a centralised model of lunch preparation and delivery strengthened the collaboration between School Food Matters and Loaves and Fishes Tasmania with a partnership agreement signed in late 2022.

Key findings include:

SUCCESSFUL IMPLEMENTATION

In **2022**, the School Lunch Project provided:



In **2023**, the School Lunch Project provided:



71.5%

Of parents indicated their child ate the meals on the days they were available.



There was strong support and enthusiasm for the project from a range of partners, with new partnerships formed to support project delivery.



Loaves and Fishes Tasmania commenced the development of a local food procurement strategy.

Executive Summary CONTINUED



MENU DEVELOPMENT

- Dietitians, chefs and School Food Matters staff developed winter and summer menus based on the 2013 Australian Dietary Guidelines with minimal processed or packaged foods.
- Each meal consisted of a main and a side.
- Initially 10 meals were offered on a rotating basis, with a process for schools being able to select the meals introduced in late 2022 and 2023.
- An additional 10 meals were developed.
- Vegetarian options were available for each of the animal protein based meals.



ALLERGIES AND DIETARY REQUIREMENTS

- Schools were advised not to serve School Lunch Project meals to any student with an allergy or intolerance. Some schools took it upon themselves to cater for students with allergies.
- An Allergen Management Working Group was established, an allergen coordinator was employed by School Food Matters, and an Allergen Management Plan for the project was developed in late 2022.
- In 2023, one school piloted on-site preparation of modified meals for students with allergies or intolerances.
- Expansion of the allergen pilot is planned for 2024.
- Vegetarian meals were provided to the 58 students who requested this.



CHALLENGES FOR IMPLEMENTATION

- The short-term commitment and inadequate funding for the project worked against planning and operational efficiencies.
- There was a reliance on in-kind support from organisations and individuals to deliver the project.
- The school-based staff responsible for delivering the project did not always have the appropriate skill set and experience in foodservice delivery.
- Strategic direction around models of project delivery were identified as needing further development.
- An accurate estimate of the proportion of ingredients produced in Tasmania was not possible due to lack of detail in invoicing from food wholesalers.



BENEFITS FOR THE SCHOOL COMMUNITY

- The principal and staff reported benefits of the School Lunch Project were: students having access to a healthy lunch, promotion of healthy food, and the provision of opportunities for students to try new foods.
- Some staff reported enhanced social connection and positive behavioural change such as 'calmer' classrooms.
- Parents and staff witnessed a more positive attitude to food. Two-thirds of parents reported their child was more willing to try new foods. Some parents indicated this had a flow on effect at home and a willingness to sit down as a family for meals.
- There was limited food waste with schools demonstrating initiative in using uneaten meals to address food insecurity in their local community.
- Plate waste was mostly fed to animals and/or composted in school produce gardens and worm farms.
- Some schools linked the project to curriculum initiatives such as hospitality training and leadership. This was most apparent in secondary schools and district schools.

Executive Summary CONTINUED



CHALLENGES FOR THE SCHOOL COMMUNITY

- Challenges identified by principals and school staff included encouraging some students to try new foods, allocating sufficient time for students to eat the meals, providing students with the right amount of food, and catering to food allergies.
- Resource challenges identified by principals and school staff included reallocating school resource package funding to support the project, finding suitable staff to support implementation of the project, increased workload for other staff, and finding a suitable space for students to eat meals.
- Some principals and school staff indicated a lack of information around project expectations and requirements prior to commencement of the project.
- Menu options were limited due to budget restraints and the many schools offering lunches once or twice per week. Some students and staff felt the menu could have more variety. Parents considered the menu variety and serve sizes were right.
- Students requested more choice, a voice in the meal offerings provided each day and more involvement in the project.
- 48.5% of parents were still packing a lunch or snack food, just in case their child did not like the meal provided or in case they were still hungry.



PAYMENT MODELS

- Most parents (95.8%) indicated a willingness to pay for school meals with strong support for a discount for families that had more than one child.
- Parents were willing to pay \$1–\$12 per meal, with a median of \$3 per meal.
- Parents acknowledged payment was necessary for project sustainability.
- Parents and staff did not want the introduction of a payment system to preclude students with the greatest need from participating in the lunch project.



PROJECT COSTS

- There was wide variation in estimated costs by schools although some of these costs would have been incurred if the school had continued to run a school canteen.
- The median set-up cost was \$13,697 (range \$2,996 to \$37,492) per evaluation school in 2022 and \$10,972 (range \$881 to \$30,491) per evaluation school in 2023. This included purchasing and installing equipment covered by the project budget, additional expenses paid for by the school, and salary support for dietitians and the food safety officer.
- In 2023, the median total cost per meal was \$9.98 (range \$8.78 to \$13.36). This consisted of:
 - \$5.23/meal for Loaves and Fishes Tasmania to provide a cooked lunch,
 - \$1.73/meal for School Food Matters to manage the project,
 - \$0.35/meal for the Department of Health staff to support the project,
 - \$2.67/meal for schools to provide the school lunch.
- The total cost per meal decreased from \$11.55 in 2022 to \$9.98 in 2023, reflecting efficiencies in scale.



STUDENT ATTENDANCE AND WELLBEING

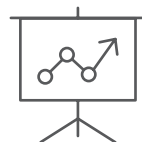
- Average attendance was similar on school lunch days and non-school lunch days for the 17 School Lunch Project schools that approved the use of attendance data. It was not possible to examine change in attendance among groups of students, for example those experiencing higher disadvantage or food insecurity.
- Average attendance was similar between the 11 School Lunch Project schools and the 11 comparison schools.
- The proportion of students classified as having high wellbeing was similar between the 11 School Lunch Project schools and the 11 comparison schools for five selected sub-domains (Cognitive engagement, Connectedness to adults at school, Emotional engagement with teachers, School belonging, Peer belonging) and 6.9 (95% confidence interval: -12.3, -1.4) percentage points lower for School climate in School Lunch Project schools than in comparison schools.
- Some schools provided the meals to different grades on different days of the week. As a result, many students (from four schools in 2022 and 10 schools in 2023) only received the meals one day per week, potentially limiting the impact of the project.

Recommendations



FOR IMPLEMENTATION TEAM AND SCHOOLS:

- Develop a governance structure that includes all key stakeholders, including a mechanism for incorporating school staff, students and parents/caregivers to bring together different perspectives, experiences, and knowledge.
- Develop a systematic induction process for schools that outlines expectations with respect to staffing, equipment, and other considerations.
- Continue to build on and implement actions identified in the Allergen Management Plan to ensure all students with identified allergies can participate in the project.
- Identify skills and knowledge required by staff to undertake their role in the project and provide training and support where this is lacking.
- Develop a system of capturing the source of food by wholesalers so that local food procurement can be accurately measured.
- Strengthen curriculum links and education to improve food literacy (i.e., the skills and knowledge required to make appropriate decisions about food) for students.



FOR POLICY MAKERS/ADVISORS:

- Consider introduction of a parent co-payment, with discounts for families with multiple school-aged children and subsidisation for families in need, to support project sustainability and enable the meals to be delivered by schools more days per week.
- Undertake a systematic audit of schools' resourcing needs (i.e., staffing, infrastructure) and seek support to address these needs to enable the meals to be delivered more frequently and contribute to planning for future scale-up.
- Build organisational capacity (School Food Matters, Loaves and Fishes Tasmania, Department of Health, Department for Education, Children and Young People, schools) to support ongoing delivery and expansion of the School Lunch Project so that cooked meals can become a normal part of the school day.
- Invest sufficient long-term funding to reduce reliance on in-kind support, goodwill, and philanthropic funding and enable investment in infrastructure to support identified project and operational efficiencies.
- Invest in evaluation to measure the effect of greater project 'dose' (e.g., meals every day for all children in the 30 schools) and longer-term outcomes such as the impact on student learning, local food procurement, social connectiveness/mental health of students and staff, employment opportunities, and food literacy.



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Abbreviations and Definitions

ATET	Average Treatment Effect on the Treated group. We estimated the effect of the school lunches (the treatment) on school attendance and student wellbeing and engagement in the School Lunch Project schools (the treated group). To do this we compared the School Lunch Project schools to comparison schools (see definition below). The analysis considers changes over time in attendance (or wellbeing and engagement) in all schools before the school lunches were provided. The Average Treatment Effect on the Treated is the estimated “extra” change that only occurs in the School Lunch Project schools in the years of the intervention (2022 and 2023), and not in the comparison schools (if there is any such extra change).
Comparison schools	The comparison schools were used in the analysis of the school attendance and student wellbeing and engagement data, to allow a comparison of what happened when meals were provided (School Lunch Project schools) with what happened when meals were not provided (comparison schools). The comparison schools were similar to the School Lunch Project schools regarding school type, size and level of disadvantage, but were not participants in the School Lunch Project.
DECYP	Tasmanian Government Department for Education, Children and Young People
District school	When primary and secondary schools are located on the same campus; includes Kinder to Grade 12
DoH	Tasmanian Government Department of Health
DPAC	Tasmanian Department of Premier and Cabinet
Evaluation schools	Schools selected from the School Lunch Project to participate in the evaluation
EU	European Union
ICSEA	Index of Community Socio-educational Advantage. A scale of socio-educational advantage that is calculated for schools based on student factors (parents’ education and parents’ occupation), the geographical location of the school and the proportion of Indigenous students. In this report the school ICSEA percentile is reported, which indicates where the school is placed relative to other Australian schools. For example, a school in the 11th percentile is more educationally advantaged than 11% of schools in Australia and more educationally disadvantaged than 89% of schools in Australia.
LFT	Loaves and Fishes Tasmania
Non-evaluation schools	Schools that were part of the School Lunch Project but were not included in the main data collection for the evaluation. Principals of these schools were invited to participate in an interview and provide consent for use of attendance and wellbeing data.
Ongoing costs	Ongoing costs were those expected to continue for the duration of the School Lunch Project (e.g., staff, ingredients).
PHS	Public Health Services
Set-up costs	Set-up costs were defined as one-off costs that incurred near the start of the School Lunch Project (e.g., equipment, installation costs).
SFM	School Food Matters
UN	United Nations
WHO	World Health Organization

NOTE: During 2022, two Tasmanian Government departments involved in this project were restructured. The Department of Communities was dissolved and its responsibilities moved into the Department of Premier and Cabinet. The Department of Education was renamed the Department for Education, Children, and Young People. In this report we refer to the different names of the departments according to the structure in place at the relevant point in time.

1. Introduction

1.1 Background

During 2021, the Tasmanian State Government committed \$1.52 million to provide cooked school lunches to students at 30 Government schools over two years. Notably, there was no funding allocated for a project manager position, which was subsequently funded by a philanthropist. There has been substantial in-kind support provided by the Tasmanian Department of Health (DoH), the University of Tasmania's Menzies Institute for Medical Research (Menzies), Loaves and Fishes Tasmania, and schools, which are captured in this report. An additional \$350,000 core funding was provided in 2022 with a further \$400,000 secured in the second half of 2023 for implementation during 2024, as part of the Tasmanian Department of Premier and Cabinet's (DPAC) Cost of Living initiative. Additional funding has been secured to continue operations into 2024 (beyond the scope of this evaluation). See Appendix 1 for a summary of funding and sources.

The School Lunch Project builds on an evaluated pilot in three Tasmanian schools in 2020 (Smith KJ 2021). That pilot was instigated following Julie Dunbabin of School Food Matters' Churchill Fellowship (Dunbabin 2020), which investigated lunch provision models internationally. The School Lunch Project also responds to the Food Security recommendation in the Premier's Economic and Social Recovery Advisory Council Final Report (PESRAC 2021). The Food Relief to Food Resilience Action Plan 2023 – 2025 (Tasmanian Government, 2023) strives to move from a focus on food relief to food resilience through investing in initiatives that address food insecurity. These initiatives involve collaboration and partnerships with local community and food relief sectors such as the School Lunch Project. Menzies was contracted over two years to evaluate the 2022-23 School Lunch Project.

The aim of the School Lunch Project was to determine the feasibility, benefits, and challenges of providing nutritious cooked school lunches to students in Tasmanian government schools. The project logic model is presented in Appendix 2. This final evaluation report provides information from the 2022-23 School Lunch Project and builds on the findings from the interim report (Jose et al 2023). This report presents data collected from the implementation team, school principals, school staff, parents, and students, and the Department for Education, Children, and Young People (DECYP).

1.2 Evaluation Aims

The School Lunch Project evaluation aimed to answer the following questions:

1. What resourcing and support was required by schools to deliver the School Lunch Project?
2. What resourcing and support was required by food relief agencies (Loaves and Fishes Tasmania and Foodbank) to support delivery of the School Lunch Project?
3. How was food transported to the schools and at what cost?
4. What impact did the model (prepared at a central kitchen versus cooking from scratch at the school) have on resourcing, and support needs?
5. What procurement process was established to support delivery of the project? How were local growers and producers incorporated into this process? How effective has this been?
6. How were the needs of students with allergies addressed to enable participation in the project?
7. What do key stakeholders (schools, School Food Matters, Department for Education Children and Young People, Department of Premier and Cabinet) perceive as the benefits, barriers, and enablers to implementing the School Lunch Project at scale?
8. What is the real cost (school foodservice staff, School Food Matters staff, Loaves and Fishes Tasmania, DoH dietitians and food safety officer) of providing the School Lunch Project in schools?
9. What did students, parents, and foodservice/school staff like and dislike about the School Lunch Project?
10. What impact has participation in the School Lunch Project had on school attendance?

1.3 History and Overview of School Meal Programs

School meal programs are recognised internationally as a key investment by governments to tackle food insecurity (Pastorino et al. 2023). Historically, school meals were provided to address malnutrition in school children and as a social safety net to families (Hayles 2017; World Food Program, WFP 2020). However, nowadays school meal programs are conceptualised as interventions that contribute to improved education, health and nutritional outcomes of children while supporting agricultural and social protection goals (Global Child Nutrition Foundation, GCNF 2022). Additional benefits associated with school food programs include improved local economies and environmental sustainability resulting from local food procurement (GCNF 2022). Many countries with developed economies comparable to Australia have school meal programs in place.

A mapping study report undertaken as part of the SchoolFood4Change project explored school food provision, food systems and procurement of food in the European Union (Piirsalu et al. 2022). The countries included Austria, Belgium, Czech, Denmark, Estonia, France, Germany, Hungary, Italy, Slovakia, Spain, and Sweden. Over half of the countries had food policies, dietary guidelines and sustainability requirements at the national or municipal/regional level. Most schools in the municipalities offered lunch every day with a mixture of central kitchens and in-house catering. Contract catering was the most common foodservice delivery model used (Piirsalu et al. 2022; GCNF 2022). The Tasmanian School Lunch Project has joined the SchoolFood4Change project as a Replication City.

The average cost of a school lunch varied between countries from 4.13€ (AUD \$6.80) in Austria, 0.80 -7.30€ (AUD \$1.32–\$12.02) in France, and 4.90€ (AUD \$8.01) in Belgium, and \$2.57–3.00 in USA (Piirsalu et al. 2020; Toossi 2023). These costs include ingredients and other costs such as food transport, electricity, labour and equipment. The cost of meals was generally subsidised based on parents' income. Some schools offer no subsidies, whereas in other schools, food is free for all students (Piirsalu et al. 2022).

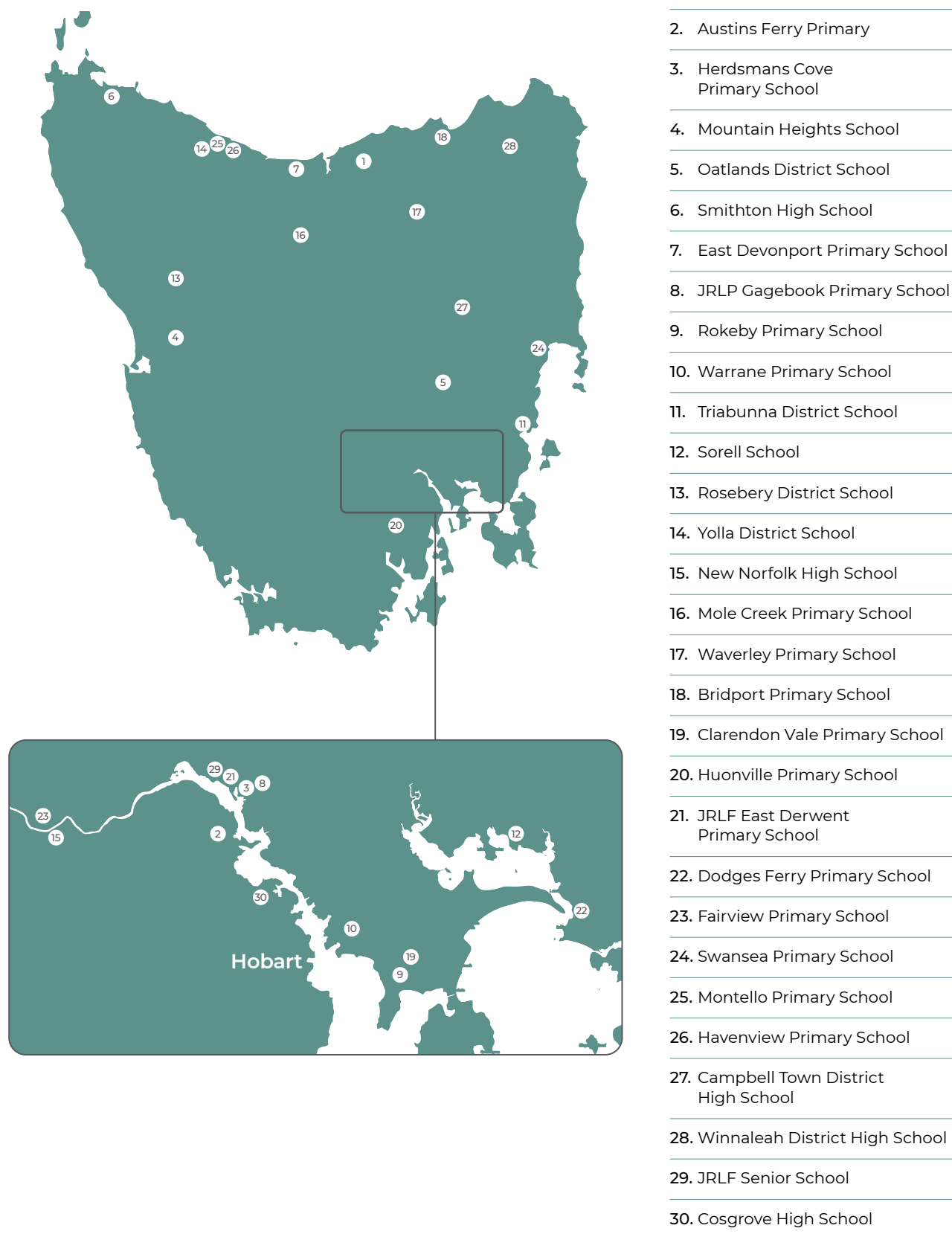
The 2021 Global Survey of School Meal Programs in 139 countries found the average budget per year per child receiving school meals was USD \$108, with a range of USD \$18-23 in low-and-middle-income-countries to USD \$400 in high-income countries (GCNF 2022). Governments provided an average of 70% of funding for school meal programs in 86 countries, with school meals fully funded by government in the remaining 53 countries. School meal programs have a positive return on investment of USD \$3-9 for every USD \$1 invested in provision of nutritious school meals (WFP 2020).

Most municipalities in EU countries practice sustainable public food procurement, with mandated sustainability requirements (i.e., plant-based options, ecolabels, low carbon emissions, food waste reduction, energy efficiency) (Piirsalu et al. 2022). In the 2021 Global Survey of School Meal Programs, purchasing food (as distinct from donations) was the most common form of food procurement, with domestic procurement and engagement with local farmers associated with a more diverse and healthier food basket (GCNF 2022).

In response to concerns about food insecurity, a school meal system recently commenced in New Zealand (Vermillion Peirce et al 2021 and 2022). In New Zealand, most schools chose an external supplier model for meal production. The evaluation of the pilot program found that schools were able to provide nutritious meals, reduce hunger for those students with greatest need and contributed to student wellbeing (Vermillion Peirce et al 2021 and 2022). In Australia, there are emerging school meal program initiatives with food relief, reduced caregiver burden, improved education outcomes, and the creation of a strong sense of school community identified as key drivers for the transformation (Manson et al 2024).

The Tasmanian School Lunch Project provides a unique opportunity to evaluate the set-up and development phase of a school meal project and inform similar initiatives in Australia.

Figure 1: Map of the School Lunch Project Schools in Tasmania



2. Methods

2.1 School Lunch Project Governance

School Food Matters (previously the Tasmanian School Canteen Association) led the implementation of the School Lunch Project. Fifteen schools commenced in term 2, 2022, and an additional 15 schools commenced in 2023 (30 schools in total, **Figure 1**).

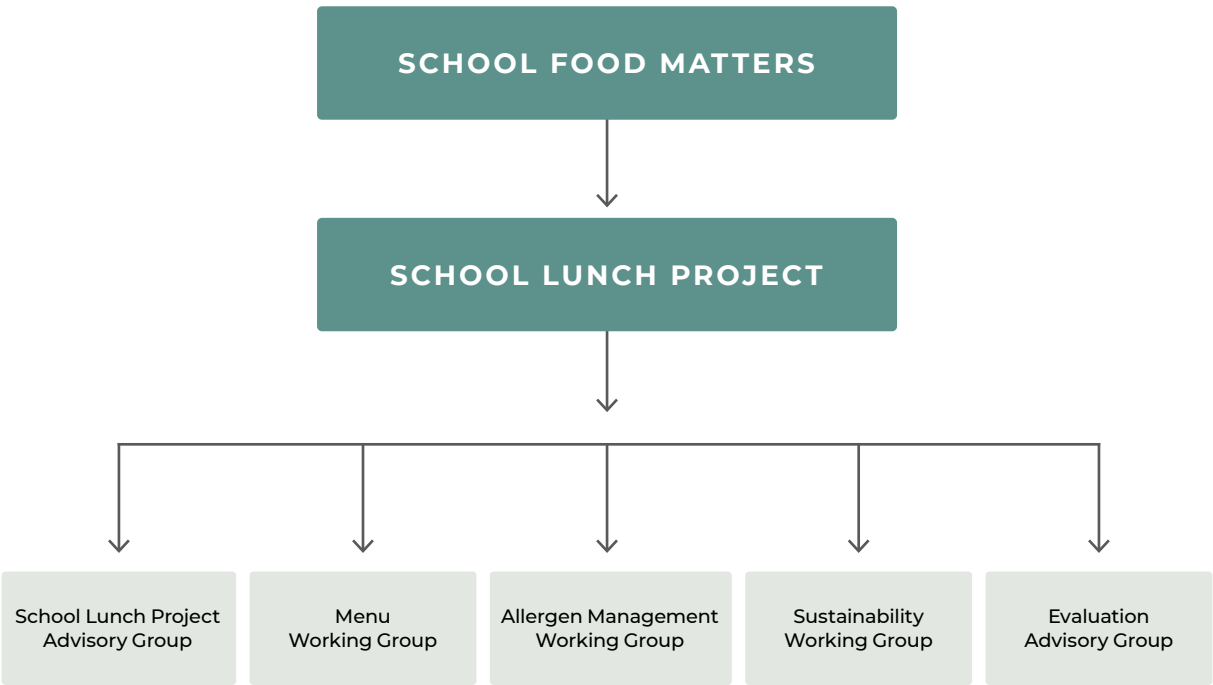
A School Lunch Project Advisory Group and Menu Working Group were established by School Food Matters to support the implementation of the School Lunch Project.

Other working groups were established throughout the project as needed (**Figure 2**). See Appendix 3 for Working and Advisory Group membership details.

2.2 School Lunch Project Evaluation Methods

A detailed description of the evaluation methodology is provided in Appendix 4. Briefly, the Menzies evaluation team used a Developmental Evaluation approach (Patton M, 2011) to frame the evaluation, which focused on six purposively selected schools each year.

Figure 2: School Lunch Project governance structure



2.2.1 Evaluation schools

After receiving consent from the principal of each evaluation school, baseline data were collected prior to the commencement of the School Lunch Project through surveys distributed to students (2022 only), parents/caregivers, and school staff. Data collected at this time are referred to as 'baseline data' throughout this report.

In terms 3 and 4 2022 and 2023, parents/caregivers and school staff at each evaluation school completed surveys; students were not invited at this stage due to the low baseline response which indicated low feasibility for this approach. School staff, parents/caregivers, and students in grades 3 and above who had parental consent were invited to participate in separate group discussions, mostly held face-to-face at each of the evaluation schools. Interviews were held with principals. In 2023, schools that commenced the School Lunch Project in 2022 were again invited to circulate surveys to their staff and parents/caregivers. Data collected at this time are referred to as 'follow-up data' throughout this report.

2.2.2 All School Lunch Project schools

In addition to the data collection focused on the 12 evaluation schools, an invitation was extended to principals from the remaining 18 School Lunch Project schools to complete a survey and/or participate in an interview.

2.2.3 Implementation data

The School Lunch Project regional coordinators collected descriptive data, in person or via phone, from the schools about how they were implementing the project. Interviews were held with key stakeholders (including School Food Matters, Loaves and Fishes Tasmania, DoH staff) during terms 3 and 4 in 2022 and 2023. Records of the expenses associated with the School Lunch Project were collected by collating data from School Food Matters, DoH, Loaves and Fishes Tasmania (provided at the start of the following year), and schools (provided during term 3 or 4 of the current year).

2.2.4 Attendance, wellbeing and engagement data

The principals of all 30 School Lunch Project schools were invited by email to consent to the DECYP providing attendance data, and data from the DECYP's annual Student Wellbeing and Engagement Survey. An additional 30 'comparison' schools, matched on school type (primary, secondary, district), number of student enrolments, and ICSEA (a scale of socio-economic advantage/disadvantage) were also invited to participate.

The attendance data were provided from 7 February 2018 to 30 November 2023 (inclusive) and included the attendance rate for each day, for each grade, in each school.

The Student Wellbeing and Engagement Survey was completed annually (2019–23) by Tasmanian Government school students in grades 4 and above (Gregory & Brinkman, 2020). It included a variety of multiple-choice questions about students' social and emotional wellbeing and their engagement at school. Responses were coded by survey administrators into low, medium, or high wellbeing. Six sub-domains were selected a priori to be included in this analysis: Cognitive engagement, Connectedness to adults at school, Emotional engagement with teachers, Peer belonging, School belonging and School climate.





TASMANIA'S
WESTHAVEN
Boysenberry
Creamy Yoghurt

3. Evaluation Findings

3.1 Delivery of the School Lunch Project

In 2022, the School Lunch Project provided 78,832 cooked meals to 1,678 students from 15 schools (3,108 meals per week). In 2023, when the project was expanded to 30 schools, 191,968 meals were provided to 4,104 students (7,079 meals per week).

3.2 School Lunch Project Evaluation Participation

Of the twelve evaluation schools, most provided the meals one day per week in 2022 and one or two days per week in 2023 (**Figure 3**). Some schools provided the meals to different grades on different days (e.g., grade 1-3 on Mondays and grade 4-6 on Wednesdays), so although the school provided the meals multiple days per week, the students only received the meals once per week. As a result, in five schools in 2022 and eight schools in 2023, students only received the meals one day per week. One school rotated the grades receiving meals each week on a four-week cycle, so students were provided with the meals every four weeks.

There was variation in the way the School Lunch Project was delivered at each school, because schools were encouraged by School Food Matters to identify and implement the cooked lunches in a way that best aligned with existing resources and structures. The delivery of the School Lunch Project for the 12 evaluation schools is summarised in **Table 1** and **Table 2**.

Figure 3: Number of days per week the 12 evaluation schools provided the meals, by year

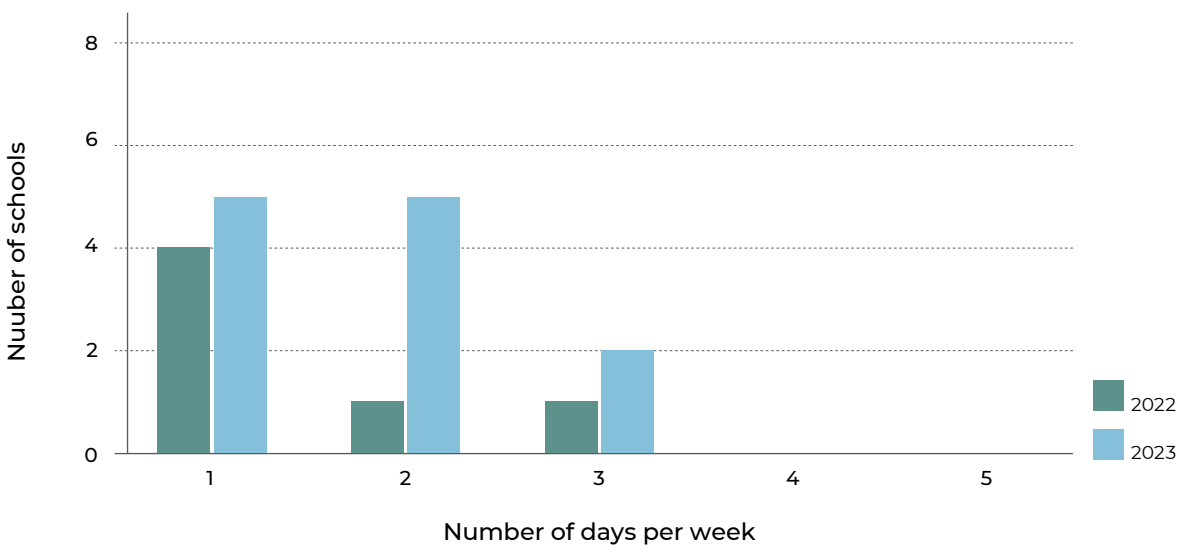


Table 1: Summary of the School Lunch Project implementation at the six 2022 evaluation schools

	School 1 PRIMARY	School 2 DISTRICT	School 3 DISTRICT	School 4 PRIMARY	School 5 PRIMARY	School 6 SECONDARY
Number of days per week school lunches provided	1	1	1	2*	1	3
Number of students receiving meals each week	30	48	120	170 (~85/day)	200	140
Number of lunches prepared each week	30	48	120	170	200	420
Grades fed	1 Grade 3 class	1 Grade 1/2 class, 1 Grade 8 class, 4 Grade 10 helpers	Prep-Grade 10	Kinder-Grade 6	Prep-Grade 6	Grade 7–12
School lunch model	Prepared by central kitchen	Prepared by central kitchen/made from scratch†	Prepared by central kitchen	Prepared by central kitchen	Prepared by central kitchen	Prepared by central kitchen
Where lunches are eaten	Dining area next to kitchen	Dining hall	Classroom	Classroom	Classroom	Dining area next to kitchen
How lunches are served	Plated up and brought to the child's seat	Child says what they want and it is dished for them	Served in bento boxes and delivered to students	Plated up and brought to the child's seat	Served in bento boxes and delivered to students	Plated up, child collects plate and goes back to their seat
Who prepares the lunches	1 teacher aide, 1 volunteer	1 teacher aide, 8 Year 10 students	2 other staff, 5–10 students	Day 1: 1 canteen manager, up to 2 helpers Day 2: 4 volunteers‡	1 canteen manager, 1 canteen staff	2 canteen staff
Who serves	1 teacher aide, 1 volunteer	1 teacher aide, 8 Grade 10 students	2 other staff, 5–10 students	1 person (business manager or admin)	1 canteen manager, 1 school nurse, 1 principal (sometimes), 1–2 volunteers	2 canteen staff
Who cleans the dishes	1 teacher aide, 1 volunteer	1 teacher aide, 8 Grade 10 students	1 other staff	Variable (teacher's aide, principal, other staff)	1 canteen manager, 1 school nurse, 1–2 volunteers, 2–3 students	2 canteen staff
Alternative food if student doesn't like school lunch§	None	None	None	None	None	None
Canteen open	Yes, as usual	Yes, as usual	No	Yes, but fewer options	Yes, but fewer options	Yes, as usual
Food waste	Fed to chickens	Fed to chickens and pigs	Fed to chickens	Composted, fed to worm farm, thrown in the rubbish	Fed to chickens	Fed to chickens
Leftovers (unserved food)	Volunteers take home, frozen for later use	Available for families to collect, available for staff to collect	Frozen for later use	Available for families to collect, composted, fed to worm farm	Available for families to collect, sold to teachers to cover cost of takeaway containers	Donated to charities that feed people in need

* Changed to feeding all students one day per week in term 4, 2022.

† Started using central kitchen and changed to preparing food in the school kitchen from term 3, 2022

‡ Community volunteer program. Was only used during term 2 and term 3.

§ Bread rolls were available from term 4, for all students who did not want the main meal.

Table 2: Summary of the School Lunch Project implementation at the six 2023 evaluation schools

	School 7 PRIMARY	School 8 PRIMARY	School 9 DISTRICT	School 10 PRIMARY	School 11 SECONDARY	School 12 PRIMARY
Number of days per week school lunches provided	2	2	2	2	3	1
Number of students receiving meals each week	50	150 (~75/day)	80	280 (~140/day)	150	64
Number of lunches prepared each week	100	150	160	280	450	64
Grades fed	Kinder – Grade 6	Prep – Grade 6	Kinder – Grade 12	Kinder – Grade 4	Grade 7–10	Prep – Grade 6
School lunch model	Central kitchen (1 day) prepared from scratch (1 day)	Prepared from scratch	Central kitchen	Prepared from scratch	Central kitchen	Prepared from scratch
Where lunches are eaten	Multipurpose area by kitchen	Tables and chairs set up in hallway	Classroom	Classroom	Common room and school grounds	Gym or school grounds
How lunches are served	Plated up and child takes back to their seat	Plated up and brought to the child's seat	Plated up and brought to the child's seat and plated up and child takes back to their seat	Plated up and child takes back to their seat	Plated up and child takes back to their seat	Plated up and child takes back to their seat
Who prepares the lunches	2 volunteers (central kitchen days) Chef/teacher aide, 6 students (prepare from scratch)	Canteen manager, 1 volunteer	Canteen manager	1 School Lunch Project lead	Canteen manager, 1 canteen staff	1 School Lunch Project lead
Who serves	Canteen manager	Canteen manager, 2–4 students	5 teachers	1 teacher/class	Canteen manager, 1 canteen staff, 1 teacher	1 School Lunch Project lead
Who cleans the dishes	2 volunteers (central kitchen days) Chef/teacher aide, 6 students (prepare from scratch)	Canteen manager, 1 volunteer	Canteen manager, 1 volunteer	Canteen manager, School Lunch Project lead, cleaners	Canteen manager, 1 canteen staff	1 School Lunch Project lead
Alternative food if child doesn't like school lunch*	None	Bread rolls	Bread rolls	Bread rolls	Bread rolls	Bread rolls, fruit, yoghurt
Canteen open	Yes, as usual	No	Yes, fewer days	No	No	Doesn't have a canteen
Food waste	Thrown out in the rubbish	Composted, taken home by staff for pigs	Compost, fed to chickens	Taken home by staff for pigs/chickens	Compost, fed to chickens, thrown out in the rubbish	Compost, thrown out in the rubbish
Leftovers (unserved food)	Offered to staff, frozen for later use	Available for families to collect	Available for families to collect	Available for families to collect	Available for families to collect	Available for families to collect, given to staff

* Bread rolls were available for all students who did not want the main meal (introduced in term 4 2022 and available for the full year in 2023).

3. Evaluation Findings CONTINUED

3.2.1 Survey participation

A summary of survey participation is shown in **Table 3**. Compared to 2022, in 2023 more parents completed the baseline survey and less parents completed the follow-up survey.

A full description of the parent demographic characteristics at baseline and follow-up can be found in **Table 35** and **Table 36** (Appendix 5). In brief, there was diversity in the demographic characteristics of parents who responded to surveys. Characteristics were similar between those who completed the baseline survey (N=164) and follow-up surveys (N=219) and across the two years. For example, 24% of respondents identified as a single parent at baseline while 22% identified as a single parent at the follow-up survey. Similarly, 16.5% of parents had a bachelor's degree at baseline and 13.2% at follow-up. Some parents did not complete the sociodemographic questions (n=13 at baseline and n=2 at follow-up) and therefore the number of participants are slightly lower than in the other tables of this report.

More staff participated in 2023 than 2022, with a total of 123 baseline surveys and 73 follow-up surveys (**Table 3**). The most common respondents were teachers and support staff.

The 2022 evaluation schools were invited to complete another follow-up survey in term 3 2023. Seventeen staff from 3 schools and 21 parents from four schools participated. Due to the limited response, data from this survey were not included in the final analysis.

3.2.2 Interviews and discussion group participation

The total number of participants involved in interviews and/or focus groups for 2022 and 2023 is shown in **Table 3**. More parents and staff participated in interviews and/or discussion groups in 2022 than in 2023, whereas principal and student participation was similar for both years. More primary school students (n=75) than secondary (n=13) or district school (n=13) students participated in discussion groups. For the two years of the evaluation, 101 students and 39 parents participated in interviews and/or discussion groups.

Twenty-two members of the implementation team participated in interviews in 2022 or 2023 with eight interviewed both years (**Table 3**).

All evaluation school principals completed one interview (n=13) and 46 other school staff participated in interviews or discussion groups. All evaluation and non-evaluation school principals that commenced the School Lunch Project in 2022 (n=15) were invited to complete an interview and/or a survey in Term 3, 2023. One principal interviewed in 2022 completed an interview in 2023 and two completed a survey (from 2022 evaluation schools).





Table 3: Number of responses to surveys, focus groups or interviews at baseline and follow-up, by year

	Number of responses					
	2022		2023		Combined	
	Survey	Interview or focus group	Survey	Interview or focus group	Survey	Interview or focus group
Baseline						
Principals	3	–	3	–	6	–
Teachers/support staff	23	–	69	–	92	–
Foodservice staff	2	–	3	–	5	–
Other school staff*	7	–	13	–	20	–
Parents†	45	–	131	–	176	–
Follow-up (term 3 or 4)						
Principals	2	7‡	3	7	5	14
Teachers/support staff§	26	26	34	11	60	37
Foodservice staff§	3	4	5	5	8	9
Parents	128	26	101	13	229	39
Students	–	56	–	45	–	101
Stakeholders¥	–	12	–	18	–	22
Non-evaluation school principals	–	1	–	0	–	1

* Includes assistant principal, business manager, school leader, admin, education facility attendant.

† 12 parent surveys in 2022 did not have responses for what they are looking forward to, worried about, and sociodemographics. Two parent surveys in 2023 did not have responses for sociodemographic questions.

‡ Two principals were interviewed at one school due to staff changes.

§ In 2023, two foodservice staff were also support staff and completed both surveys.

¥ Eight implementation team members were interviewed more than once.

3. Evaluation Findings CONTINUED

3.3 School Lunch Project Expectations

Parent baseline survey data (completed before their child started the School Lunch Project) from 2022 and 2023 are presented in **Table 4**. Parents indicated that they were looking forward to their children trying new foods (73.3%), having a healthy lunch (56.8%), and having a filling lunch

(48.9%). Just under half (46.6%) of parents had no concerns or worries about the introduction of school lunches and a similar proportion (46.6%) were concerned that their child would not like the food.

Table 4: Parents expectations of the cooked school lunches at baseline – what they are looking forward to, concerned about, and willing to pay for a cooked school lunch

	2022 (N=45)		2023 (N=131)		Combined (N=176)	
	n	%	n	%	n	%
Looking forward to*						
Child will try new foods	26	57.8	103	78.6	129	73.3
Child will have a healthy lunch	23	51.1	77	58.8	100	56.8
Child will have a filling lunch	23	51.1	63	48.1	86	48.9
Not having to make child's lunch	14	31.1	53	40.5	67	38.1
Child will have more time to eat lunch	19	42.2	48	36.6	67	38.1
Lunches will be free	13	28.9	50	38.2	63	35.8
I am not looking forward to the lunches	1	2.2	3	2.3	4	2.3
Other	2	4.4	8	6.1	10	5.7
Concerned about*						
Not worried about the school making my child's lunch	19	42.2	63	48.1	82	46.6
Child will not like the food	16	35.6	66	50.4	82	46.6
Child won't try new food	5	11.1	38	29.0	43	24.4
Child will not be given enough food	3	6.7	10	7.6	13	7.4
Child will be given too much food	1	2.2	8	6.1	9	5.1
Lunches will be free	2	4.4	7	5.3	9	5.1
Child has allergies and there won't be food they can eat	1	2.2	6	4.6	7	4.0
Child will have less time to play	4	8.9	3	2.3	7	4.0
Other	0	0	6	4.6	6	3.4

* Multiple responses could be chosen.



School staff baseline survey data (completed before their school started the School Lunch Project) from 2022 and 2023 are presented in **Table 5**. Staff indicated that their school had nominated to be part of the project because they wanted to ensure all children had healthy food to eat (88.6%), all children had enough food to eat (82.1%) and to improve classroom behaviour (52%) and school attendance (38.2%). Relieving pressure on parents was the least common reason to participate (27.6%).

Most staff anticipated the benefits of the project would enable all students to have access to a healthy lunch (95.1%), promote healthy eating (89.4%) and would give students the opportunity to try new food (82.9%).

Two thirds of staff (66.7%) felt the project would also improve social connection. Additionally, staff believed involvement with the project would improve classroom behaviour (59.4%), academic performance (56.9%), and school attendance (50.4%).

Staff anticipated the challenges of implementing the project would be getting the students to try the food and eat the lunches (65.9%), minimising the amount of food waste (52.9%), increased workload for other staff (48%) and catering for students with allergies (42.3%).

3. Evaluation Findings CONTINUED

Table 5: Staff responses to baseline survey questions about why the school participated in the School Lunch Project, and their anticipated benefits and challenges

Response	2022 (N=35)		2023 (N=88)		Combined (N=23)	
	n	%	n	%	n	%
Why the school wanted to participate*						
Ensure all children have healthy food to eat	31	88.6	78	88.6	109	88.6
Ensure all children have enough food to eat	28	80.0	73	83.0	101	82.1
To improve classroom behaviour	15	42.9	49	55.7	64	52.0
To increase school attendance	11	31.4	36	40.9	47	38.2
To take pressure off parents	10	28.6	24	27.3	34	27.6
Other reasons	3	8.6	4	4.6	7	5.7
Anticipated benefits*						
All students have access to a healthy lunch	34	97.1	83	94.3	117	95.1
Promotes healthy eating	33	94.3	77	87.5	110	89.4
Gives students the opportunity to try new food	33	94.3	69	78.4	102	82.9
Improved social connections	25	71.4	57	64.8	82	66.7
Improved classroom behaviour	24	68.6	49	55.7	73	59.4
Improved academic performance	22	62.9	48	54.6	70	56.9
Improved school attendance	15	42.9	47	53.4	62	50.4
Less litter in the playground	12	34.3	31	35.2	43	35.0
Other benefits	0	0	3	3.4	3	2.4
Anticipated challenges*						
Getting students to try/eat the lunches	24	68.6	57	64.8	81	65.9
Minimising the amount of food waste	21	60.0	44	50.0	65	52.9
Increased workload others	23	65.7	36	40.9	59	48.0
Catering for students with allergies	12	34.3	40	45.5	52	42.3
Having the meals prepared on time	16	45.7	28	31.8	44	35.8
Finding extra time to eat the lunches	14	40.0	25	28.4	39	31.7
Finding a suitable space for students to eat the lunches	17	48.6	17	19.3	34	27.6
Providing students with the right amount of food	12	34.3	19	21.6	31	25.2
Getting support from families/consent to have the lunches	14	40.0	16	18.2	30	24.4
Getting foodservice staff/volunteers with required skills	11	31.4	18	20.5	29	23.6
Preparing food with equipment/space available	10	28.6	18	20.5	28	22.8
Increased workload for me	11	31.4	8	9.1	19	15.5
Other challenges	4	11.4	4	4.6	8	6.5

* Multiple responses could be chosen.

3.4 School Lunch Project Experiences

During follow-up, parents, staff, and students had mainly positive responses about the School Lunch Project although there were suggestions made to improve the project and its delivery in individual schools. This is presented below as School lunches and food security; Parent, student and staff perceptions and experiences of the school lunch project; Bringing packed lunches; Experiences and perceptions of meals; Willingness to pay; Curriculum links, Staff perception of impact on concentration and behaviour; and Parent perceptions of impacts at home.

3.4.1 School lunches and food security

While addressing food insecurity was only one of the aims of the School Lunch Project (along with improving access to nutritious food, improving health and education outcomes and supporting the local economy) food security was described as a main motivator for principals when expressing interest in the project.

The limited amount of food provided for lunch and/or the low nutritional quality of the food they were seeing in lunchboxes was also a motivator for participating in the project. Principals believed that the students who needed the meals the most were participating in the project, particularly in schools where the whole school was being provided with meals. Principals reported seeing some students known to be experiencing more disadvantage taking part in the project as they became accustomed to the meals. Leftovers were used in a variety of ways, with some schools identifying families that were in need and providing leftovers to take home.

Table 6 outlines how different members of the school community described the impact of the lunches and the use of leftovers on food security.



3. Evaluation Findings CONTINUED

Table 6: School community members perceptions of how the School Lunch Project was addressing food insecurity

School Community Group	Example quotes
Principals	<p><i>One of the things that I was noticing and one of the reasons that we put in for it is that some of the school lunch boxes, it wasn't that they were unhealthy as though they're pretty minimal...I think it is really a factor in our community that some people can't actually afford their lunch.</i></p> <p><i>So, I guess the biggest one was around where our school sits in terms of our demographic of socioeconomic [status] – we have 75% of our families in the lower range, and about 40% of those are in the very, very low range. To be able to support them, especially with cost of living, so it's helping the families but also helping the kids.</i></p> <p><i>We very much need to have food security in our school for our families, and children, on the days that the lunch program doesn't operate, seek out lunch from us. And that's a critical part of well-being for our whole-school community.</i></p>
Staff	<p><i>Sometimes parents take them home. Sometimes staff and students have it for lunch the next day. Or sometimes it goes in the freezer for meals another day.</i></p> <p><i>At the end of the day if we have leftovers... we do pack them up and label those and they give them to families that are not doing it that well. So the children take those home with them after school and the families are aware of what we're doing.</i></p>
Parents	<p><i>I think it's great for kids that necessarily don't have the stuff to bring from home, I think that's fantastic.</i></p> <p><i>We are now seeing a time of unprecedented economic stress, and I really feel for people who maybe aren't in as good a situation as we are... And I also know that there are parents who have a multitude of problems that make the lives of their children difficult. So for those children, I can imagine it is a relief to know that they're going to school and they're going to have a hot meal in their tummy.</i></p>
Students	<p><i>Because if they don't bring food they can just eat free food.</i></p> <p><i>It is some people's only meal.</i></p> <p><i>Because its actually really good because some people don't have that much and they actually get to have something decent.</i></p>

3.4.2 Parent, student and school staff perceptions and experiences of the School Lunch Project

The staff reported benefits in the follow-up survey were similar to the anticipated benefits reported at baseline: that the project had enabled all students to have access to a healthy lunch (100%), promoted healthy eating (92.3%) and

given students the opportunity to try new food (90.8%). Two thirds of staff (69.2%) reported that the project had improved social connection. Staff were less likely to report changes in classroom behaviour, academic performance, or school attendance (**Table 7**). These are discussed further in 3.4.7.

Table 7: School staff's perceived benefits, follow-up survey, 2022-23

Response	2022 (N=28)		2023 (N=37)		Combined (N=65)	
	n	%	n	%	n	%
Benefits						
All children have access to a healthy lunch	28	100.0	37	100.0	65	100.0
Promotes healthy eating	25	89.3	35	94.6	60	92.3
Gives children the opportunity to try new food	25	89.3	34	91.9	59	90.8
Improved social connection	18	64.3	27	73.0	45	69.2
Less litter in the playground	12	42.9	13	35.1	25	38.5
Improved classroom behaviour	7	25.0	15	40.5	22	33.9
Improved academic performance	9	32.1	10	27.0	19	29.2
Improved school attendance	7	25.0	7	18.9	14	21.5
Other	2	7.1	4	10.8	6	9.2

Nearly three quarters of parents (71.5%) reported that their child ate a cooked school lunch every day that they were available (**Table 8**). The most common things that parents liked about the school lunches were that their child was trying new foods (75.1%), had a healthy lunch (66.4%), had a filling lunch (54.6%), and had more time to eat lunch (52.8%). Not having to make lunch and having a free lunch were reported as a benefit by around a third of parents. This was reinforced in interviews with parents.

I think it's fantastic. I love Wednesdays because I've only got to pack them recess. My youngest one's a bit fussy so it gets a bit boring. I'm like, 'Does she really just want to take a jam sandwich every day?' Because she'll only eat the one thing. It's trying to get a bit of variety in. (Parent)

She's happy. Virtually no complaints from her, and she was looking forward to what she would get every Wednesday, so it was really good for her. The only thing she'd like maybe was more fruit, but she is a big fruit eater. (Parent)

Some students also noted that not having to prepare packed lunches was a positive aspect of the project for themselves and/or their parent.

And I like it because my mum doesn't have to pack sandwiches five days in a row.
(Primary student)

I don't pack anything else because you know it's filling, you look forward to it three days a week.
(Secondary student)

Around one-third of parents were concerned that their child would not like the food served, but just over half were not worried about this (**Table 8**). In 2022, half of surveyed parents said they would like their child to be provided with lunch every day. In 2023, more than half were interested in daily lunches, and one-third were interested in lunches being served two or three days a week (**Table 8**). Students also indicated that they would like the lunches to be offered more often.

We should have it twice a week instead of once.
(Primary student)

3. Evaluation Findings CONTINUED

Table 8: Parent perceptions of the school lunches – what they enjoy, are worried about and if they would like the lunches to continue, follow-up surveys 2022–23

Response	2022 (N=128)		2023 (N=101)		Combined (N=229)	
	n	%	n	%	n	%
How often child has cooked school lunches						
Every day they are available	98	77.2	65	64.4	163	71.5
Most days they are available	11	8.7	16	15.8	27	11.8
Some days they are available	9	7.1	13	12.9	22	9.7
Not very often	7	5.5	5	5.0	12	5.3
Never	2	1.6	2	2.0	4	1.8
Enjoy about school lunches						
Child tries new foods	95	74.2	77	76.2	172	75.1
Child has a healthy lunch	83	64.8	69	68.3	152	66.4
Child has a filling lunch	65	50.8	60	59.4	125	54.6
Child has more time to eat lunch	64	50.0	57	56.4	121	52.8
Not making child's lunch	47	36.7	41	40.6	88	38.4
Lunches are free	46	35.9	32	31.7	78	34.1
I am not enjoying the school lunches	0	0	1	1.0	1	0.4
Other	12	9.4	3	3.0	15	6.6
Worried about school lunches						
I'm not worried about the school making my child's lunch	65	50.8	67	66.3	132	57.6
Child does not like the food	45	35.2	23	22.8	68	29.7
Child does not try new foods	11	8.6	8	7.9	19	8.3
Not given enough food	10	7.8	6	5.9	16	7.0
Child has allergies and no appropriate food for them	10	7.8	5	5.0	15	6.6
Lunches are not healthy	5	3.9	1	1.0	6	2.6
Given too much food	2	1.6	2	2.0	4	1.8
Child has less time to play	3	2.3	0	0	3	1.3
Other	2	1.6	5	5.0	7	3.1
Would like a cooked lunch everyday						
Yes	64	50.0	–	–	–	–
No	21	16.4	–	–	–	–
Not sure	43	33.6	–	–	–	–
Like the school lunches to continue						
Yes, every day	–	–	58	57.4	–	–
Yes, 3 days per week	–	–	9	8.9	–	–
Yes, 2 days per week	–	–	23	22.8	–	–
Yes, 1 day per week	–	–	7	6.9	–	–
Not sure	–	–	2	2.0	–	–
No	–	–	2	2.0	–	–

School meals were provided to students in a range of settings, including school classrooms, school halls, outside eating areas, and dining rooms. Some students indicated that they enjoyed the social aspect of eating meals together at school. There was no indication from students that where they ate impacted on the social experience of eating a cooked meal at school.

I like eating with my friends. (Primary student)

It gets people to connect, to connect if that makes sense. (Secondary student)

Yeah, because you could be friends with a person in a different class, and then you can see them outside, like recess and lunch, and you can just see them while you're eating, and have a big chat. You can sit there for a while. (Primary student)

However, not all students found eating with other students enjoyable. In a couple of schools students talked about being 'silly' during or after the lunches or discussions not being pleasant when eating together with other students.

Yeah, but sometimes people are a little bit silly. (Primary student)

3.4.3 Bringing packed lunches

Nearly half of parents provided a packed lunch on School Lunch Project days (**Table 9**). This was also commonly reported in interviews. Across both interviews and surveys, parents reported packing a lunch because they were worried that their child would not like the food available, forgot the lunches were provided that day or because they were worried their child wouldn't have enough food to eat. Parents reported that when they packed a lunch on School Lunch Project days, their child ate most or all of their packed lunch. Some students reminded their parents that it was a 'lunch day' and that they did not require a packed lunch.

I do, just in case; it's usually just some extra fruit or a sandwich included. (Parent)

Yes, just a little bit extra. One day I forgot and I packed her lunch, but I'm glad I did because it was the baked beans day and she didn't. That was the one she didn't like at all. (Parent)

Yeah, on the Wednesdays, sometimes we just carry on as normal. But that's only because we forget. But this morning, she only took some fruit for morning break and then she said, 'Oh no. No, today's the lunch day'. Other days when I have packed the stuff, she eats what's provided at school and has the other after school and she looks forward to something different, fresh. (Parent)



3. Evaluation Findings CONTINUED

Table 9: Parent responses regarding providing a packed lunch, follow-up surveys 2022–23

Response	2022 (N=128)		2023 (N=101)		Combined (N=229)	
	n	%	n	%	n	%
Provide a packed lunch on school lunch days						
No	63	49.2	54	54.6	117	51.5
Yes	65	50.8	47	45.5	110	48.5
Reason for providing a packed lunch*						
In case doesn't like the school lunch	52	80.0	38	84.4	90	81.8
In case still hungry	9	13.9	14	31.1	23	20.9
Forget it is school lunch day/habit	3	4.6	19	42.2	22	20.0
Allergies/intolerances – ensure there is food they can eat	2	3.1	2	4.4	4	3.6
Other: 'In case'	1	1.5	–	–	–	–
How much packed lunch they usually eat (on school lunch days)						
All of it	–	–	7	13.5	–	–
Most of it	–	–	28	53.9	–	–
Some of it	–	–	14	26.9	–	–
None of it	–	–	3	5.8	–	–

* Multiple responses could be chosen.

3.4.4 Experiences and perceptions of meals

Menu development has been outlined in more detail in the interim evaluation report (Jose et al 2023) and manuscript (Galloway et. al., 2024). Each lunch consisted of a main and a side dish with summer and winter menus developed. The principles that guided development and example menus can be found in Appendix 6 and 7.

3.4.4.1 Student meal preferences

Students preferred some meals more than others. Butter chicken with rice and fruit, pasta bolognese and seasonal vegetables, and lasagne were clear favourites. Meals that were not enjoyed as much by students included savoury slice, fish burgers, and homemade baked beans. Where students had indicated a preference for a side separately from the main meal, fruit and/or yoghurt or the green salad and seasonal vegetables were commonly selected. Schools selected a vegetarian dish each fortnight for all students e.g., savoury slice. No student participating in the evaluation indicated that they requested the vegetarian options so their perspectives on these meal options were not captured.

















3.4.4.2 Variety

Initial menu planning for the School Lunch Project was based on schools offering the lunches 5 days per week, with a 10-day rotating menu (**Figure 4**). However, as most schools offered meals 1-3 days per week this approach resulted in little variation in the meals they received. For example, schools providing lunch one day per week only had two meal options for the term. To address this issue, the approach to providing meals to schools was modified across 2022. For terms 2 and 3 the menus were 'flipped' halfway through the term so that schools received different meals. In term 4, schools could select the meals that they wanted to receive each term.

The number of different meal options depended on the number of days the lunches were provided. Schools providing lunches one day per week could choose two meals for the first half of the term and two different meals for the second half of the term. Schools providing meals two days per week selected eight different dishes over the term and school offering meals three days per week selected all dishes and could choose two of their favourites. This approach continued in 2023.

Around two thirds of parents in both years of the project indicated that there was enough variety on the menu (**Table 10**) although it was clear in parent interviews/discussion groups and the 2023 survey that parents were not always aware of what meals were offered to students.

Figure 4: Example menu

 School Lunch Program Term 2 Menu 			
	Main meal	+ Side or Dessert	
Savoury slice with homemade baked beans			Sweet and sour chicken with rice + fruit
Cottage pie with seasonal vegetables			Vegetable curry with rice + fruit and yogurt
Butter chicken with rice + fruit			Pasta bolognese with seasonal vegetables
Beef chow mein with noodles + banana & blueberry muffin			Chicken casserole with bread roll + fruit crumble and custard
Tuna pasta bake + fruit			Mexican mince with rice + yogurt
   			

Note: Vegetarian options are available

3. Evaluation Findings CONTINUED

Table 10: Parent perceptions of the variety of food, follow-up surveys 2022–23

	2022 (N=128)		2023 (N=101)	
	n	%	n	%
Enough variety in menu*				
Yes	81	63.3	–	–
No	43	33.6	–	–
Not enough	–	–	22	21.8
The right amount	–	–	61	60.4
Too much	–	–	2	2.0
I don't know what foods are on the menu	–	–	16	15.8
No response	4	33.6	–	–

* The response options varied between the two years.

When asked to comment on the variety of the menus it was clear that perceptions differed with some parents indicating that the variety of meals was good, particularly when compared to the canteen.

My child has loved having the lunches. She doesn't enjoy sandwiches and I find it hard to give her a healthy lunch with variety. My daughter enjoys a hot lunch. The program has helped with this. (Parent)

Better than like – the canteen is good – but this is a better variety than just a canteen, just having meat pies and sausage rolls and that. (Parent)

Other parents indicated that they considered the menu to be repetitive.

My daughter has requested more variety such as: curried or devilled sausages, porcupines and variety of vegetables, chilli con carne and rice, Caesar salad. (Parent)

My children are over having the same meal on rotation during the school term, they would like something different each week. (Parent)

In surveys, 28 of 41 (68.3%) staff respondents indicated there was enough variety on the menu. However, during interviews and discussion groups staff and students more commonly commented on the lack of variety in the menu.

The repeated meals. We have had curry more than four times, sweet and sour chicken three times and quiche twice etc. ... The most popular meal we had was pasta bolognese and that has only been served once. (School staff)

A few students had positive feedback about the menu variety "I like the fact that we get to eat different meals" (Primary student). However, while changes had been made to meal selection by schools, students in some schools continued to identify a lack of variety as a concern in 2023.

It gets annoying sometimes when they do the curry so much. (Secondary student)

And it's like the same thing every week. (Primary student)

It gets boring after it's been the same thing. (Primary student)

It was clear when asking students to identify their favourite/least favourite meals from the menus in 2023 that students had not eaten all meals on the menu. Many would have liked to have eaten other meals as reflected in this discussion at one school when looking at the menu options,

Student 1. *We haven't even had that, or that, or that, or that. ...*

Student 2. *Wait, I really want that. It's sweet and sour chicken with rice.* (Primary students)

3.4.4.3 Choice

In 2023, students continued to indicate that they would like more choice over the menu options available and a choice of meals on the days when hot lunches were provided.

I'd probably rather if they had two meals on the trolley or something. (Primary student)

Maybe like an option or something like every week, and then we get to pick out of two options or something, what we want to eat. So, then we can all have a say of what we want to eat. (District student)

Students provided their own suggestions for how to incorporate more choice into the school lunches:

Well, I might like to ask everyone what they would like, and then maybe have a vote. (Primary student)

I'd probably go around my class with a piece of paper and a pen, and just write down what people like, and then take it to the kitchen and show the people that cook in the kitchen. (Primary student)

One school that was providing meals three times per week had responded to the issue of choice by offering all of the meal options for the week each day, rather than one option each day. A staff member at that school commented on how having a choice impacted students:

In terms of the risk taking of students: for each week we are provided with the three meals ... all three meals are delivered in varying quantities each day so the kids have choice on which meal they would like to try. Providing the element of choice for the kids has provided them an opportunity to feel more safe about what they are eating, the exposure of seeing the meals earlier in the week makes them more familiar with the meals and they are more likely to try it later in the week. So individually the meals are not as popular but with three options the kids will choose to take something after lining up. (School Staff)

In this school the students said that offering the options was encouraging students with different tastes to eat the meals.

I like there's lots of options to choose from for picky eaters and vegetarians or whatever it is. (Secondary student)

This approach was not possible in schools where the meals were being offered only once per week, or in schools where there was limited infrastructure, cooking equipment or staff capacity.



3. Evaluation Findings CONTINUED

3.4.4.4 Amount of food

The majority of parents and staff reported that there was enough food provided during the meals (**Table 11**). Only a small number of parents (3.5%) and staff (4.9%) considered the serving sizes to be too large.

Table 11: Parent and staff perceptions of the amount of food served

	2022		2023		Combined	
	(N=128)		(N=101)		(N=229)	
Parents	n	%	n	%	n	%
Amount of Food						
Not enough	2	1.6	4	4.0	6	2.7
The right amount	85	66.4	77	76.2	162	71.7
Too much	6	4.7	2	2.0	8	3.5
Changes depending on the meal	32	25.0	18	17.8	50	22.1
No response	2	3.4	–	–	3	1.3
School Staff	(N=3)		(N=38*)		(N=41)	
	n	%	n	%	n	%
What do you think about the serving sizes of the meals?†						
Children are not getting enough to eat	0	0	0	0	0	0
Serving sizes are a suitable amount	2	66.7	29	76.3	31	75.6
Serving size quantities vary	1	33.3	6	15.8	7	17.1
Children are getting too much to eat	0	0	2	5.2	2	4.9
No response	–	–	1	2.6	1	2.4

* Two participants in 2023 completed both the foodservice and support staff surveys. In this table, the support staff responses to these questions were excluded for those two participants (one did not complete these questions for the support staff survey and the other had consistent responses between the two surveys).

† In 2022, only foodservice staff were asked what they thought about the serving sizes. In 2023, foodservice staff, teachers and support staff were asked.

Student opinion on the size of the meals was varied. Some reported there was too much food, some though the meals were the right size and others thought there was not enough food, particularly for the meals they liked.

Sometimes it's a little too much food.

(Primary student)

And I'm left hungry. Like he gave me a tiny bit of that, and some people, it depends, because everyone is serving it and they give different sizes. (District student)

The sizing is pretty good, but the best things are too small. (Primary student)

The majority of staff (38 of 40 survey responses, 95%) indicated that students came back for seconds. Some students reported being able to have more than one serving while others indicated that this was not allowed at their school.

If you want more you get seconds.

(Secondary student)

And you're not allowed seconds.

(Primary student)

3.4.4.5 Trying new foods

Despite concerns in the baseline survey about students' willingness to try new foods (see **Table 5** – 65.9%), during follow-up interviews some school staff expressed their surprise about students' willingness to try new foods.

I think the surprising aspect for me was the way that students – most students have been willing to try new food. I thought they might be a bit, "No, I'm not going to do that", and, of course, you've got a couple like that, but most will at least give it a go and they're trying food that they've never tried... (Principal)

Around half of parents surveyed indicated their child was eating foods they did not previously eat and nearly 70% indicated their child was more willing to try new foods (**Table 12**).

Table 12: Parent responses to question about their child trying new foods, follow-up surveys 2022–23

	2022 (N=128)		2023 (N=101)		Combined (N=229)	
	n	%	n	%	n	%
Child eats foods they did not previously eat						
Yes	55	43.0	60	59.4	115	50.2
No	72	56.3	26	25.7	98	42.8
Not sure*	–	–	15	14.9	–	–
No response	1	0.8	–	–	–	–
Child is more willing to try new foods						
Yes	88	69.3	71	70.3	159	69.7
No	39	30.7	17	16.8	56	24.6
Not sure*	–	–	13	12.9	–	–

* The response option 'not sure' was only included in the 2023 survey.

3. Evaluation Findings CONTINUED

Some, but not all, students had tried new foods as a result of the School Lunch Project. Some students revealed that they had enjoyed these new foods more than they had anticipated. For example:

Student 1: *What was the one you didn't want to try, and then you tried it, and you ended up having seconds? What was that one? That was towards the start of it.*

Student 2: *Casserole.*

Student 1: *The chicken casserole?*

Student 3: *Yes. I didn't want to try that, and then I loved it.* (Primary students)

In this case the school staff member had encouraged the student to try the new food 'Miss [name] persuaded me to' (2023, primary school). Other students did not always enjoy the new foods they tried.

I'll try it but if I don't like it, I don't like it. I'll never try it again. (Primary student)

Student perspectives and feedback about the School Lunch Project were captured in the letters to the boss (see **Figure 5**).



Figure 5: Student Letters to the boss of the School Lunch Project

Dear boss of the school lunch project,

[Here you can tell the boss anything you want to about the school lunches. This can be what you like, what you don't like, anything you think might make it better. We want to know what you think about eating a cooked lunch at school.]

We love all the food and want to thank you for it all. And my favourite is the chicken casserole. And the butter chicken. We would like some different food to try. And we could have options to choose one. Thank you.

Dear boss of the school lunch project,

[Here you can tell the boss anything you want to about the school lunches. This can be what you like, what you don't like, anything you think might make it better. We want to know what you think about eating a cooked lunch at school.]

Thank you for the School Lunch Program it helps lots of kids who maybe can't bring lunch.

Maybe if there was a choice it would be better.

3. Evaluation Findings CONTINUED

3.4.5 Willingness to pay

During follow-up interviews (2022 and 2023), parents expressed a willingness to pay for the lunches. Follow-up survey responses elicited a range of amounts that they would be willing to pay from nothing to \$12 per meal (**Table 13**). Surveys collected at baseline prior to the implementation of the project elicited a similar response, with 95.8% of respondents willing to pay between \$1 and \$5 per meal. Parents expressed a concern that attaching a cost to the School Lunch Project may exclude some families, as they would have difficulty paying for the lunches.

I think there'd be a reduction in participation. I think you would miss your target audience. (Parent)

Personally I would be prepared to pay because it's quite a value, like I value the nutritious food and the training of the children and the involvement, and I think those are the things that are valued. (Parent)

Parents willingness to pay for the School Lunch Project was also compared to the food their children could purchase at the canteen or providing a packed lunch from home.

Well, some of the meals at the canteen are actually really very cheap. They can get a piece of quiche for \$2.00 or a noodle cup or whatever for \$2.60, or a mini wrap for \$2.00. It's so cheap. Otherwise, there's lasagne for \$4.50. So I guess anywhere between – yeah, \$4.00 is probably, I think probably. If it was more than \$4.00, I'd be like, oh I might as well just get them the other things. (Parent)

I'd be happy to pay as long as it's kind of equivalent to what I would have been paying for a home packed lunch anyway. But I guess with the bulk purchasing of the ingredients within the school would help reduce the pricing. So you wouldn't be paying as if you were in a restaurant; you'd be paying like a school lunch price instead. (Parent)



Table 13: Parent willingness to pay, follow-up surveys 2022–23

	2022 (N=128)		2023 (N=101)		Combined (N=229)	
	n	%	n	%	n	%
Amount willing to pay for school lunch (per child per day)						
Nothing	6	4.7	5	5.0	11	4.8
\$1	7	5.5	8	7.9	15	6.6
\$2	24	18.8	20	19.8	44	19.2
\$3	25	19.5	29	28.7	54	23.6
\$4	17	13.3	9	8.9	26	11.4
\$5	35	27.3	27	27.7	62	27.1
\$10	3	2.3	0	0	3	1.4
Depends on meal	6	4.7	0	0	–	–
Other	4	3.1	3	3.0	7	3.1
No response	1	0.8	–	–	1	0.4
Mean, SD	3.56	2.04	3.12	1.48	3.36	1.82
Median, IQR	3	2-5	3	2-5	3	2-5
Do you think there should be a family discount for families with more than one child at the school?						
Yes	109	85.2	80	79.2	189	82.5
No	19	14.8	21	20.8	40	17.5
What would make it easier to cover the costs of a school lunch?						
Pay weekly/fortnightly	51	39.8	51	50.5	102	44.5
Pay in school levies at the start of the year	48	37.5	33	32.7	81	35.4
Family discount	46	35.9	33	32.7	79	34.5
Pay on a term basis	17	13.3	23	22.8	40	17.5
Not having a school lunch every day	10	7.8	14	13.9	24	10.5
Other	8	6.3	1	1.0	9	3.9

In 2023, teachers, support staff and principals were also asked what payment model they thought would be most appropriate for their school community. Of the respondents, 62.2% thought including a payment for the lunches in the school levies at the start of the year would work best, 10.8% thought a weekly or fortnightly model would be best, 21.6% reported they thought families would not be willing to pay and 5.4% said the best model would depend on the individual family (**Table 14**).

Regarding a pricing-based model, 73% thought the lunches should be free for all families, and 21.6% thought they should be free for families in need and other families should pay a small fee. When asked about a family discount for those with more than one child at the school, 88.9% agreed a discount would be appropriate (**Table 14**).

3. Evaluation Findings CONTINUED

Table 14: Teachers, support staff and principals preferred payment options, follow-up survey 2023 only

Payment option question and response options	(N=37)	
	n	%
If families were asked to pay a small fee, what payment system would work best in your school?*		
Pay in school levies at the start of the year	23	62.2
Pay weekly/fortnightly	4	10.8
Pay each term	2	5.4
Other:		
Many families wouldn't be willing to pay	8	21.6
Depends on the family	2	5.4
Should there be a family discount for those with more than one child at the school?		
Yes	32	88.9
No	4	11.1
How do you think the lunches should be priced?		
Free for all families	27	73.0
Free for families in need, other families to pay a small amount	8	21.6
Everyone pays the same	2	5.4

* Multiple responses could be chosen.

3.4.6 Curriculum Links

In interviews, some teachers and principals could see the potential for involvement of students and links with the curriculum. Some principals indicated that they were not aware of direct links between curriculum and the School Lunch Project at their school. This was particularly the case for primary schools, with more involvement of students in secondary and district schools.

My guess would be it's not, but I couldn't tell you. We have some gaps in our health curriculum and in our teacher capability. So yeah, at the moment, there's some gaps there which make it a bit challenging to do it. But I don't know whether the teachers are sort of – my assumption – and I think it's probably an educated guess – is that the food turns up, the kids eat it. (Principal)

Principals from district and secondary schools were more likely to identify how they had linked the School Lunch Project with the school curriculum and the potential it had to provide vocational opportunities for students.

It supports our kids to get a greater skills base in being able to pursue that work, because we have a lot of kids that are involved in seasonal work and I think that program supports it. So that's probably an unintended learning outcome but it's a really important one for us. (Principal)

In schools where students were not involved, there was a desire to include them with the main limitations being staffing and availability of appropriate space. Some schools had students involved in the preparation and serving of the food.

We don't really have the facilities at the moment, but part of our redevelopment is to get a commercial kitchen, a catering kitchen... I think certainly down the track there's opportunity for us to do that. Because we're operating out of the canteen, the space is too limited for us to. (Principal)

We obviously pair it up with our nine and ten cooking class, so it's been really good for those students to take some ownership over the program, and it gives them some practical experience as well in catering. (Principal)

Parents were unsure whether students were involved in the School Lunch Project but supported their involvement.

It would be good if it's, you get like the older kids, the Grade 10s or something, they cook the meals in the cooking classes or something, be able to serve it for lunch or something. I reckon that'd be – and they get to learn actual recipes, not just the basic toasted cheese sandwiches and stuff like that. (Parent)

Students wanted to be more involved in menu development, food preparation, serving food and cleaning up.

Let the students be more involved and more hands on with it. (Secondary Student)

3.4.7 Staff perception of impact of lunches on concentration and behaviour

In the baseline surveys, 52% (n=123) of school staff respondents reported that improved classroom behaviour was a motivator for their school participating in the project and 59.4% of staff also reported this as an anticipated benefit of the project (**Table 5**). In the follow-up surveys 42.4% of school staff reported noticing a change in concentration and the same percentage reported a change in behaviour (**Table 15**). Principal responses to the survey were low, but in 2023 two reported a change in behaviour.

Table 15: Teacher, support staff and principal's perceived changes in concentration and classroom behaviour, follow-up surveys 2022–23

	2022 (N=28)		2023 (N=36)		Combined (N=64)	
	n	%	n	%	n	%
Teacher/support staff	(n=26)		(n=33)		(n=59)	
Change in concentration						
Yes	7	26.9	18	54.6	25	42.4
No	9	34.6	15	45.5	24	40.7
Unsure*	10	38.5	–	–	–	–
Change in classroom behaviour						
Yes	7	26.9	18	54.6	25	42.4
No	8	30.8	15	45.5	23	39.0
Unsure*	11	42.3	–	–	–	–
Principal	(n=2)		(n=3)		(n=5)	
Change in classroom behaviour						
Yes	0	0	2	66.7	2	40.0
No	0	0	1	33.3	1	20.0
Unsure*	2	100.0	–	–	–	–

* The response option 'unsure' was only included in the 2022 survey.

3. Evaluation Findings CONTINUED

Several teachers and support staff reported an impact on classroom behaviour before and after students received the lunches. Staff described students looking forward to the lunches and knowing they would receive a cooked lunch contributed to them being calmer in mornings.

Students are always eager on the days of the lunch program to make sure they do all their work and pack up early and on time to go over and eat together. (School staff)

The children often look forward to 'Hot Lunch' and are ready and eager to line up and walk to the hall where lunch is served. Once 'Hot Lunch' has commenced, the children seem happy, relaxed, calm and ready to play at playtime. (School staff)

Some teachers and support staff also noted that students were calmer in the afternoons and there was a reduction in behaviour incidents after lunch.

Students are becoming more settled during the school lunch meal, sitting down and finishing their serve. At the beginning of the program, few students participated and there was a lot of disruption/chaos. Now things are much more settled. (School staff)

Less behavioural problems, better concentration, more focused. I think it is because students are not hungry, and they have had an extra chance to socialise while all eating together. (School staff)

Interviews with principals elicited more cautious responses, and while positive about the project and potential impacts, principals were hesitant to associate changes in behaviour with students participating in the School Lunch Project.

Yeah, we've certainly had some improvements with some students in that class, but it's probably hard to know whether the link is with that food on that one day per week, but yeah, we've certainly had some students that have made some gains in that class, which is great. (Principal)

There's been improvements in behaviour. I think it would be a long reach to attach it to the food program at the moment because there's been quite a few variables. So yeah. And the one day a week is probably not enough to say. (Principal)

Thursdays and Fridays seem to be better days in the school. We noticed last year, I was only here for term four and a bit of term three, start and end of the week was always turbulent for behaviour, and now we see that Mondays are a bit turbulent, but Fridays are more settled, and I hope it's to do with all the things we've been putting in place, having hot lunch is part of that consistent, predictable routine that these kids depend on. (Principal)

3.4.8 Parent perceptions of impacts at home

Parents were asked about changes in their child's behaviour at home, including impacts on what the family eats and what their child is willing to try.

Interviews elucidated a varied response from parents regarding the impacts of the School Lunch Project at home. Some parents described no changes to their child's behaviour or eating habits, whereas others described their child being more open to trying new foods. Some parents described their children wanting to try the meals they had eaten in the School Lunch Project at home, and incorporating meals that they thought their children would not try but have eaten as part of the School Lunch Project.

I would say she's probably a lot better at dinner time, finishing her food. She'll just eat it without really complaining, even with something new; because as I said it's encouraging her to try new things at home. (Parent)

I haven't noticed a difference with (child's name), I guess because I haven't thought to try and look for any differences, but the energy and behaviour is pretty much the same whether it's that day or not, that I've noticed. (Parent)

Some parents described their children being more enthusiastic to attend school on School Lunch Project days, other reflected that their child just discussed it being a lunch project day or reminded their parents not to pack a lunch on the school lunch days.

She's usually pretty excited when she comes home, and she says, "Oh, Mum, I've had this for lunch today," and, "Guess what I had for lunch today?" and it's always been good feedback, which is good. (Parent)

Just over half of parents reported that their child eats food they did not eat previously, and 69.7% were more willing to try new foods (**Table 16**). Some parents noted their child ate less after school '*when they have the school lunch, they don't eat as much when they get home.*' (Parent), but most parents did not report seeing a change in their child's behaviour after school on School Lunch Project days, or a change in how much their child ate at school and what the family has for dinner.

Table 16: Parent responses to impacts at home, follow-up surveys 2022-23

	2022 (N=128)		2023 (N=101)		Combined (N=229)	
	n	%	n	%	n	%
Child eats foods they did not previously eat						
Yes	55	43.3	60	59.4	115	50.4
Not sure*	---	---	15	14.9	—	—
No	72	56.7	26	25.7	98	43.0
Child is more willing to try new foods						
Yes	88	69.3	71	70.3	159	69.7
Not sure*	—	—	13	12.9	—	—
No	39	30.7	17	16.8	56	24.6
Change in behaviour after school						
Yes	16	12.5	15	14.9	31	13.5
No	112	87.5	86	85.2	198	86.5
Change in what child eats after school						
Yes	11	8.7	12	11.9	23	10.1
No	116	91.3	89	88.1	205	89.9
Change in what the family has for dinner						
Yes	10	7.9	14	13.9	24	10.5
No	117	92.1	87	86.1	204	89.5

* The response option 'not sure' was only included in the 2023 survey.

3. Evaluation Findings CONTINUED

3.5 School Lunch Project Implementation

3.5.1 Project Implementation

As noted in the interim report, implementation of the School Lunch Project was more complex than anticipated by members of the implementation team. This section reflects on the 2022 experience, provides additional data on implementation processes in 2023, and includes data collected from the implementation team (School Food Matters, Loaves and Fishes Tasmania, DoH), principals, and school staff.

3.5.1.1 Shared vision and collaboration

In 2023 the common purpose, shared vision, and commitment evident by all involved in 2022, including schools, remained strong as emphasised by project implementation team members.

It's trying to provide free hot lunches to students in either primary school or high school, so they can get nutritious food and also be able to focus on their education. It also helps with behavioural things as well. It's a way of capturing or providing food for children who wouldn't actually get it at home as well. (Stakeholder)

It's really created a group of people that just want to get the job done and working hard together and putting egos and organisational structures aside. That's been surprising. Yep. There's no sort of no – nobody's got self-interest on the top of their mind. It's all about feeding the kids. (Stakeholder)

The implementation team remained focused on providing healthy cooked meals to students across Tasmania. The collaborative effort required to deliver the project appeared to have strengthened with individuals from different organisations acknowledging the efforts of all involved to support delivery of meals to students. No new partnerships were created in 2023.

And look, we've got a really good team, but that team has developed too, and we've all kind of had to do it together. Because there's so many different stakeholders as well, which is weird too. Like it's a really unique program. We've got health department, we've got the School Food Matters team, the Menzies Institute are involved, and there's Loaves and Fishes Tasmania as well. And then there's departments within Loaves and Fishes Tasmania that all have to come together. So being able to cooperate and collaborate is vital. (Stakeholder)

While there was evidence of a strong collaboration some members of the broader project implementation team felt constrained with respect to communicating suggestions for new ideas or ways of doing things, in case these ideas were misconstrued.

I do find sometimes you can't speak at more smaller team meetings. I don't always feel I can speak freely without it being taken as a criticism and taken personally. (Stakeholder)

3.5.1.2 Flexibility

Similar to findings from the 2022 interim report, flexibility remained a key characteristic of individuals and organisations involved in the implementation of the project. Flexibility from management and organisations enabled individuals to dedicate the time required to support the start-up and implementation.

And the flexibility of our workplace as well because my employment is not just purely on the School Lunch Project. I've also got other projects that I work on, and there was flexibility that I could stop those projects here and there so I could spend a bit more time on the School Lunch Project. (Stakeholder)

Flexibility was evident from individuals as they problem solved daily issues as they arose. Sometimes individuals addressed more immediate issues to alleviate pressures elsewhere in the implementation team. Due to uncertainties around food supply chains, delivery and staffing, flexibility was considered essential for effective management at an organisational level. This flexibility was considered crucial for implementing the project and ensuring students received the meals as planned (see **Table 17**).

Table 17: Implementation team reflections on the need for flexibility to support implementation

Flexibility	Example quotes
Managing delivery issues for schools	<i>Sometimes rice doesn't get delivered or something, I'll just go and get it myself and take it to them without putting any extra strain on that end of the chain.</i>
Managing uncertainty for organisations	<i>Something will come up, and you've got to deal with it straight away, and you've still got to get all your other stuff done, and you don't know what veggies are going to come in, and you don't know if your supplies are going to arrive, and you don't know if your staff are going to turn up, and you don't know if the school wants to change something. It's a constant state of flux.</i>
Supporting implementation of a new initiative	<i>Be flexible. Realise that not everything can be done at once and it does take time.</i>



3. Evaluation Findings CONTINUED

3.5.1.3 Personal impacts and goodwill

The personal impacts on staff discussed in 2022, such as difficulty sleeping, were not raised in 2023 as the intensity of the development and start-up phase reduced and some staff changes occurred. In 2023 the focus was on improving operational processes and procedures and some elements, such as menus, required less input.

In terms of the sort of the stress levels, it's not been as stressful because there's not been as much going on in such a fast paced way. (Stakeholder)

Well, things are a lot more settled than the first year, given that we have more procedures in place and we fine tune things a little bit. We've learnt from experience with a lot of aspects. So I think generally it's much smoother sailing than last year. (Stakeholder)

The work's already been done [with menu development]; we've done the hard yards. I feel like now it's just fine tuning when something's not quite going right, we can substitute it for another dish or whatever. (Stakeholder)

The reliance on goodwill in 2022 in the start-up phase of the School Lunch Project was noted in the interim report. While the intensity of this phase had reduced in 2023 the reliance on goodwill remained and was noted by individuals from all partner organisations.

There's a lot of love given to this project and we do appreciate that. (Stakeholder)

This was evident in discussions by regional coordinators for School Food Matters, who worked part-time, when they described responding to schools on their non-workdays.

So, I guess sometimes I'm answering calls and things like that on my non-workdays or my non-work hours. (Stakeholder)

Partner organisations continued to commit time and resources that were unaccounted for to ensure the project succeeded.

My role, none of my role is included in this. [Name], who's done a lot of work behind the scenes, especially on the costings and the forward projections and things like that, none of that's included. [Name] our finance manager, has also done a lot of work in this space, none of that's included. We understand – I mean, we can only sustain that for a certain time and we understand the importance of getting actual costs but we just want to see it bloody succeed for the moment. We're willing to forego all that and just get the job done, yep. (Stakeholder)

While the commitment to ensuring the project succeeded could be seen as a positive, one of the concerns raised was how this unaccounted resourcing might impact future funding of the project. If this goodwill and time was not accounted for in project costings, then future funding would not reflect the real cost of delivering the project.

One of the biggest risks that I see with this project is that the government's going to look at, or the funding body, future potential funding bodies, whoever it might be, will look at what's been done with this amount of money and they'll go, 'You don't need more. What are you asking for?' (Stakeholder)

I think in terms of being able to say what we've done with what budget, it's going to be hard to say 'well, we did so much more because other people putting in those additional hours without being paid'. ... going forward, we won't be able to replicate that in the same way because we can't expect people especially, say, new people or really well experienced, knowledgeable people to work for that kind of amount of money. It's just relying on goodwill. (Stakeholder)

3.5.1.4 Skills and capacity of school staff

Ensuring that school-based staff have the appropriate level of skill and capacity was perceived by most of the project team as a critical aspect in achieving success in this program. The skills of school-based staff varied considerably from qualified chefs with experience in large commercial kitchens to those who had no previous foodservice experience.

It's that and it's the people in these roles that were cleaners and things like that, they just don't have a lot of skill, a lot of knowledge. It makes it really tough. (Stakeholder)

Schools with more qualified staff appeared more likely to undertake the cook-from-scratch foodservice model so it was not necessarily the case that these schools needed more support.

And it's funny because you think that a cook-from-scratch school might want more support, and especially being a new school, so say [name school], new school, cook from scratch, but the support for them is not so much on the ground because they're quite fine on their own, it's more just being there to answer questions, make sure deliveries there. ... [school name 2], new school this year, not used to lots of the commercial cookery equipment, things not going quite right with – Last Monday, I got a text, or I got a phone call during a meeting, so then a text that their meals for the week had come frozen at 8:30 on Monday morning and they were serving that Monday for lunch, so just them obviously panicking and trying to get through. (Stakeholder)

Training and education of school staff was noted as important. While there was some capacity to provide this through the School Lunch Project, in some schools additional training may be required for staff or staff with these specialist skills will need to be employed.

And education, educate the people cooking the food at the school level or serving the food at the school level. That's one of the most important things. That's where a lot of the struggles come from, is people just don't know. People haven't got the skills. Even reheating, there's been challenges with that. So have people that know what they're doing in the school. As you would have a qualified school nurse looking after sick kids, you need to have a qualified cook looking after – feeding the kids. (Stakeholder)

3.5.1.5 Project expansion in 2023

In 2022 concerns had been raised by the implementation team about how they would manage the expansion to a further 15 schools across Tasmania in 2023. Interviews with different members of the team in 2023 revealed this expansion had differential impacts for organisations depending on their role.

For example, most of the menu development occurred in 2022 so the expansion to new schools did not have a significant impact on the workload of the dietitians. School Food Matters employed additional staff in 2023, increasing from 3.3 FTE in 2022 to 4.8 FTE in 2023, but found the staged approach to implementation across the 30 schools meant the demands on the team were not as great as anticipated with most schools that had commenced in 2022 requiring less support in 2023.

We don't need double the amount of hours with double the amount of schools because the first set of 15 schools are fairly well established and don't need us as much, but we still need to keep in contact with them. (Stakeholder)

Although it was noted that some schools who commenced in 2022 still required support due to their remote location or changes in staffing

A lot of their problems or issues stem from their geographical location. So, that hasn't changed from year to year ... Then all my other schools that have done it before... they have a bit more independence in what they're doing and have made ways that, if something doesn't get delivered or something happens, they can kind of self-solve, solve some of their problems themselves. (Stakeholder)

However, while some operational processes and procedures had been refined in 2023, it was noted that there was still the potential to refine these further to support project expansion.

I think we're kind of figuring out things as we're going. I mean, we have got some systems in place, but I think we could really shore that up a little bit better, especially when we get the new schools. It might be good to have a bit more procedures around that and maybe induction kind of things. (Stakeholder)

The greatest impact of extending the project was felt by Loaves and Fishes Tasmania. They now had one kitchen dedicated to producing the school meals full-time and employed three additional staff 'we've added in three full-timers to the project in general, whether that's in the kitchen or in the packaging side of things' with no direct injection of funds to support infrastructure and resource needs. It was noted that the two foodservice delivery models (prepared meals and cook from scratch) selected by schools was equally demanding on the organisation.

3. Evaluation Findings CONTINUED

It was a huge change. I mean, we were using our kitchen [in 2022] probably three days a week for the program. Now it's five days a week, so I can't do anything else with that kitchen. It's full-time dedicated to the program. The packaging took a lot more and you'd think that – I mean, there was an increase in number of schools cooking from fresh, you'd think that would make it easier. It doesn't make it easier. ... You've still got to source and package and deliver. ... some schools are doing one day of prepared, one day of cooking from scratch. (Stakeholder)

Loaves and Fishes Tasmania had invested in new systems and processes to support the expansion of the project into new schools.

So building on that kind of what we started with last year, we've been able to develop processes and improve processes as well. So it's evolved quite a bit since we started. (Stakeholder)

They made a [software] program, which is amazing, because we wouldn't have been able to double the program with doing everything manually like I was. So the program's really, really great and really, really useful, because we wouldn't be able to do what we do without it. There are some limitations to the current platform that we're using. (Stakeholder)

All School Food Matters regional coordinators noted delivery issues as one of the greatest challenges for them in 2023, as they often found themselves addressing food supply issues by purchasing food from the supermarket.

So there's heaps of issues that cropped up in first term, especially dealing with Loaves and Fishes and deliveries and quantities, which sort of righted themselves in second term. This term's been an interesting one, there's those schools that are a bit more regional and proved quite tricky in terms of deliveries and yeah, probably just the deliveries has been the biggest issue this term for them, but overall, I think going really well. (Stakeholder)

Food delivery concerns were also raised by school staff with some staff members describing missing items, a surplus of items that they can use in other meals or needing to arrange some items through alternative sources if the deliveries did not arrive on time and the timing of deliveries.

Sometimes the deliveries, it's not all there or we have lots of items from other schools. So we have surplus onions. Surplus, we had surplus celery at one stage. We don't need any more tomato sauce. So there's a few bulk things that we don't need just because there's been a mix-up with the deliveries. But we use them. I can put them in something else. (School staff)

No, I suppose the only one was the delivery side of it, and one week when we didn't get our delivery and we knew we weren't going to get it, and it was late in the afternoon that that email came through to us that "Your delivery hasn't arrived, it's still sitting in Hobart or whatever, and it will be there, because the truck leaves Hobart at such and such time, it will be there in time, and I just wrote back and said, "No, it won't be there, the truck doesn't get to [here] until lunchtime". So we arranged it through the local IGA. (School staff)

Staff from Loaves and Fishes Tasmania acknowledged the impact of the delivery issues on other project team members. Some of these issues were attributed to the expansion of the project to 30 schools but there were other organisational factors that contributed to these issues. Until there was a long-term funding commitment to the School Lunch Project, Loaves and Fishes Tasmania were balancing the demands created from their involvement in the project within their existing resources *"I can't just implement new processes in case this gets funded for the next five years because as far as we're aware it's funded till June next year"*, a constraint acknowledged and understood by other members of the implementation team. This meant deliveries occurred as part of the usual Loaves and Fishes Tasmania delivery schedule, resulting in less flexibility than they wished when it came to food deliveries to schools.

So if we need to go to, for instance, [name of town] or somewhere like that, we've got one chance to drop off the right food. If we miss something, we're in real strife ... ideally we'd have our own vehicle for the school food program, but at the moment it's so integrated that there's just no flexibility. ... Once it's funded and there's an exclusive vehicle for that purpose, then absolutely, we can operate just like a PFD [PFD Food Services] would or anybody else but at this stage no. (Stakeholder)



If a school misses out on something on their delivery, we've now got avenues to be able to get that to the school, so they're not necessarily going to the local supermarket and paying five times the price. But that's taken a while. The logistics is probably still the trickiest thing. Because it's integrated into our other runs as well, there's no real flexibility. (Stakeholder)

Staff illness was also noted as creating challenges during some periods of 2023.

It's not always about funding. When we've got staff who are sick, there's nothing you can - you can't put on two extra staff just to get the job done just in case they're sick, partly because you can't afford to do that. ... I mean, it's not uncommon. Last week I had - out of six staff members on Friday, I ended up with two at the end of the day. ... I can't remember the last time we had every staff member every day. (Stakeholder)

The strength of the collaboration meant that these challenges were acknowledged and potential solutions identified but did highlight the interconnectedness of the different roles of individuals and organisations in the project.

But we are so directly impacted by them in this project that the fact that they went from 15 to 30 schools with no extra resources, it makes our job so much harder because we are reliant on them delivering the right amount of food to the right place at the right time for us to do our job. (Stakeholder)

3.5.1.6 Resource limitations and short-term commitment

Resource limitations were discussed in the interim report, and these continued to impact the implementation of the project on a day-to-day basis and medium to long-term planning. The short-term commitment to the project and its funding was identified as impacting project implementation, planning, investment in operational efficiencies by organisations involved in project implementation (as previously mentioned), employment security and investment by schools. These impacts flowed on to planning food supply by producers and investments in building organisational capacity. The impacts of short-term funding are captured in **Table 18**.

3. Evaluation Findings CONTINUED

Table 18: Impacts of short-term funding on project implementation, planning and operations

Organisations and groups impacted by short-term funding	Example quotes
Implementation Team	<p><i>We can probably focus more on that [local food procurement] once – as I said, once the project becomes a funded program because at the moment we're sort of doing it off the side of the desk for not much. We don't have the resource to do it as quickly as we'd like to do it but I think the addition of the food procurement person has really allowed us to put some focus into that area.</i> (Stakeholder)</p> <p><i>I think if this program was to continue, [School Food Matters] would definitely need to invest in better technology kind of thing, so we can actually see all the people in the room [during online meetings].</i> (Stakeholder)</p> <p><i>And then also that knowing that at the moment still we've got the funding only until the end of June next year [2024], and what happens to our jobs after that, but also what happens to the staff in the schools and to the whole project? So yeah, that's just that overriding at the back of your mind all the time.</i> (Stakeholder)</p>
Food Producers	<p><i>Longevity of funding is one. Obviously farmers don't want you to set up a deal with them that only lasts six months, so they do want some continuity and some guarantee of purchase of product.</i> (Stakeholder)</p>
Principals	<p><i>We just going to be doing something at a token level, or are we going to fund it significantly enough to make a big difference?</i> (Principal)</p> <p><i>No funding considered by government to pay the staffing to run the program.</i> (Principal)</p> <p><i>And the budget requirements, and the environment, the space, and having the resources to ensure that you can support the program ongoing, which is often clearly difficult in primary schools, particularly, who might not have that commercial kitchen space to be able to prepare and have students sit down and eat those meals.</i> (Principal)</p>

While there had been some investment by key organisations in systems and processes to support ongoing implementation of the project in 2023, further investment in organisational capacity was identified as an ongoing need. For example, a focus on more strategic planning was identified as an area of potential need with some members of the implementation team noting that the team could be more proactive than reactive and make better use of the skills available in the team.

I think a lot of the time [the team is] kind of reactive as well, instead of proactive like having a bit more direction and strategic focus could come into it. (Stakeholder)

There are staff here, very highly skilled experienced staff with a range of different good attributes that they can bring to the position, at times I think were not utilised. (Stakeholder)

Longer-term commitment to the project and sufficient funding would enable more strategic and long-term investment in systems and infrastructure to support project delivery.

3.5.2 School-based Implementation

3.5.2.1 Support from School Food Matters for implementation

School staff were positive about the project and enjoyed working as part of the project. School staff described the communication with School Food Matters regional coordinators as good and were happy for their support. Prompt communication was described as a key support that staff valued.

[School Food Matters coordinator] has been great. So she will promptly reply to emails or questions, really great support to [cook] and firm around some things, but then also flexible when we need that flexibility to make the program work, so that's been helpful. (School staff)

Yeah, I think that that support's been really good and that they've provided good assistance and some good advice along the way... And she's had regular check-ins as well, probably more regular than I was expecting. So that's good. (School staff)

However, some school staff explained that there could have been more communication at the start of the term when they were setting up. Staff described needing more information about what was happening, when it was happening and what the requirements of the project were.

I think they probably needed to check to make sure we had everything that we needed. (School staff)

Staff described the training provided by School Food Matters as valuable. In the follow-up surveys of foodservice staff, 87.5% (n=8) of respondents reported attending the workshops held by School Food Matters and all attendees reported that the workshops were useful (**Table 19**).

Table 19: Foodservice staff responses, follow-up surveys 2022-23

	2022 (N=3)		2023 (N=5)		Combined (N=8)	
	n	%	n	%	n	%
Do you have all the equipment you need						
Yes	3	100.0	4	80.0	7	87.5
No	0	0	1	20.0	1	12.5
Did you attend the School Food Matters workshops						
Yes	2	66.7	5	100.0	7	87.5
No	1	33.	0	0	1	12.5
Was the workshop useful?						
Yes	2	100.0	5	100.0	7	100.0
No	0	0	0	0	0	0

3. Evaluation Findings CONTINUED

3.5.2.2 School based implementation challenges

Staff responses to the follow-up survey demonstrated that the key challenges for delivering the project within schools were encouraging students to try/eat the lunches, reallocating funding to support the project, minimising food waste and increased workload for other staff (**Table 20**).

In the follow-up surveys, 87.5% of foodservice staff reported that they had all the equipment that they needed (**Table 19**) and 12.3% reported preparing food with limited equipment and space in the canteen was a challenge (**Table 20**).

One principal reported needing to purchase major equipment which took some time to arrive and be installed. During interviews, some staff described struggling with implementing the project using the equipment they already had and the new equipment that was provided. Staff were grateful for the support of School Food Matters in preparing the kitchens but felt there could have been more communication or they required more equipment.

Table 20: Teachers, support staff and principals perceived challenges of providing the school lunches, follow-up surveys 2022–23

Challenges	2022 (N=28)		2023 (N=37)		Combined (N=65)	
	n	%	n	%	n	%
Getting students to try/eat the lunches	20	71.4	25	67.6	45	69.2
Reallocating funding to support the project*	1	50.0	2	66.7	3	60.0
Minimising food waste	15	53.6	19	51.4	34	52.3
Increased workload for other staff	16	57.1	12	32.4	28	43.1
Finding a suitable space for children to eat the lunches	17	60.7	10	27.1	27	41.5
Providing children with the right amount of food	7	25.0	10	27.0	17	26.2
Finding extra time for students to eat lunch	9	32.1	6	16.2	15	23.1
Catering for children with allergies	9	32.1	6	16	15	23.1
Getting support from families – consent for children to have the lunches	12	42.9	3	8.1	15	23.1
Getting foodservice staff/volunteers with appropriate skills to make the lunches	11	39.3	3	8.1	14	21.5
Increased workload for me	8	28.6	1	2.7	9	13.9
Preparing food with the limited equipment and space in the canteen	6	21.4	2	5.4	8	12.3
Having meals prepared on time	5	17.9	1	2.7	6	9.2
Other	4	14.3	2	5.4	6	9.2

* Only principals were asked this question.

The workshops were great, but I only got to go to one. I think if they're going to start new schools off, they really need to go to the canteens themselves with a list of stuff that you're really going to need, and then try and work that way, because that in itself would have made a massive difference. (School staff)

Sometimes when there's a hot dish plus rice I only have enough containers to put the hot dishes in and the lids. So I only have eight lids where I need 16 because I need double the amount. So things like that... (School staff)

3.5.2.3 Implementation and school-based staffing

There were some key challenges regarding staffing of the School Lunch Project within schools, including the delegation of roles and responsibilities, having sufficient time to run the project (i.e., being employed one day per week but being unable to organise the whole kitchen/ receive deliveries in that time) and reliance on volunteers.

There was a bit of confusion at the beginning around who should serve the food and who should plate them up and things like that. Some teachers were keen, some weren't keen. We had a few helpers, Grade 6 leaders. Sometimes they would turn up, sometimes they wouldn't. But it was sort of shoved around a little bit to start with. Nobody wanted to put their hand up to do it. (School staff)

For some reason they find it difficult to give me somebody that's paid to work with me all day and I've had this argument all year. Even if [volunteer] is away, they don't replace her with somebody else. So, there's been a couple of times where I've done most of it on my own. But it's the washing up at the end that you really need help with. (School staff)

Most schools described having one paid staff member running the School Lunch Project and the remainder of the roles being fulfilled by volunteers. However, some staff members remarked that more paid staff would help the School Lunch Project function more efficiently. In the follow-up surveys seven of the eight (87.5%) foodservice staff said the workload was manageable. Open text responses revealed a reliance on volunteers and a need for additional staff members/volunteers to operate the project.

I have a volunteer on both days most of the time, staff set up classrooms for meals and dish up and pack everything back in to tub to be returned to the kitchen. (School staff)

We rely on volunteers to assist in preparation and foodservice. We also utilise student leaders for service of meals. (School staff)

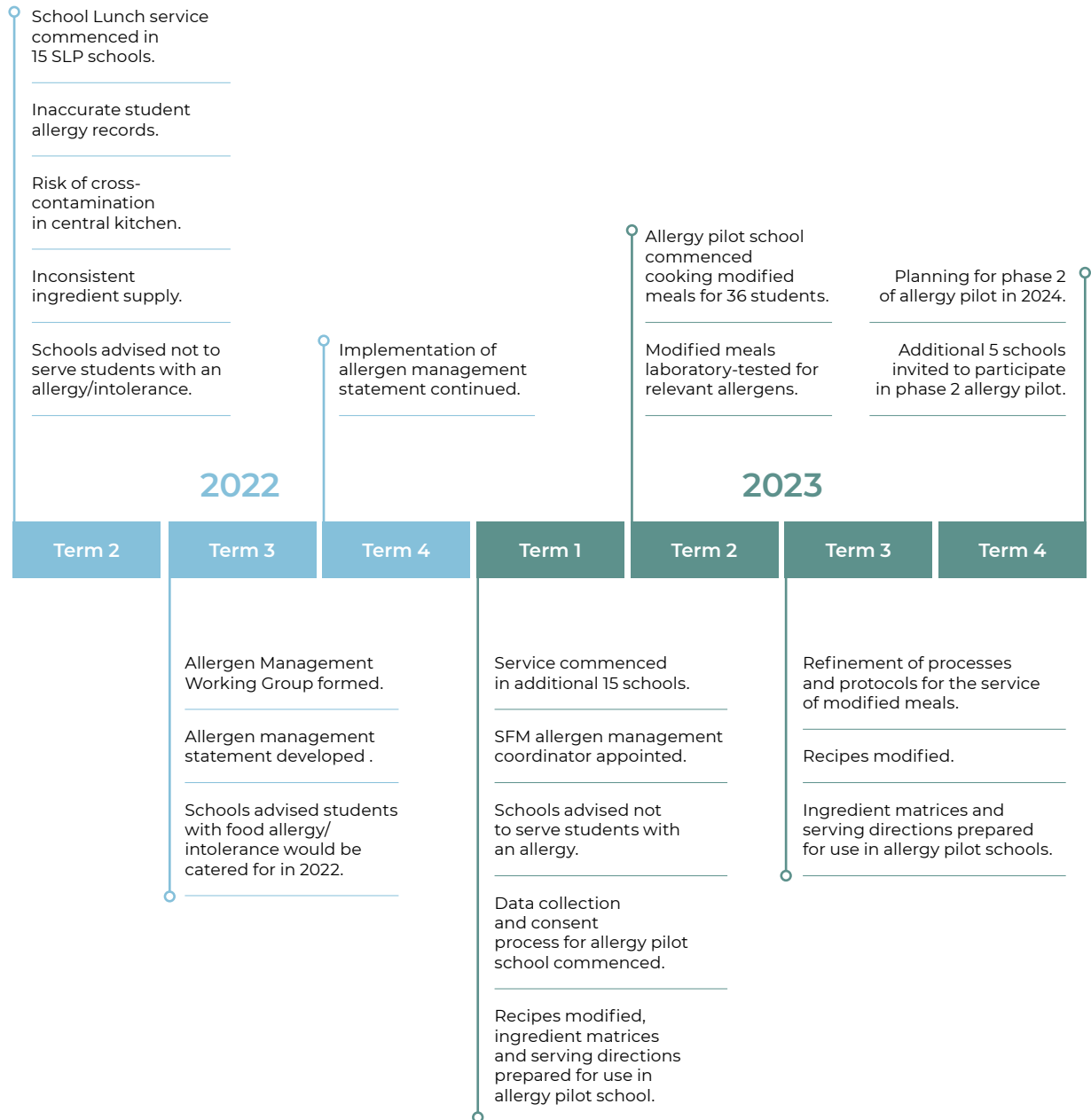
Principals would like to pay more staff to run the School Lunch Project, however, they must consider competing budget requirements.

We have used volunteers and an extra paid staff member on occasion. It would be very costly to staff the program to the level required. (School staff)

We require funds to increase our service beyond one class, funding to employ staff to prepare the meal for extra classes. (School staff)

3. Evaluation Findings CONTINUED

Figure 6: Timeline of School Lunch Project allergen management



SFM: School Food Matters
SLP: School Lunch Project

3.6 Allergen Management in the School Lunch Project

An accurate estimate of the prevalence of food allergies and intolerances in students was not able to be collected. However, in a Melbourne population-based sample, 5% of 10–14 year-old students had a food allergy (Sasaki et al 2018). The evaluation aimed to determine what was required to enable students with allergies and intolerances to safely participate in the project. This section outlines some of the key challenges the implementation team faced when trying to provide meals for students with allergies or intolerances and what has been done to address these challenges. The key steps are summarised in **Figure 6**.

3.6.1 Key challenges to providing safe meals for students with allergies or intolerances

3.6.1.1 Student allergy information

In 2022, prior to the commencement of the School Lunch Project, School Food Matters asked schools to provide students' dietary requirements (allergies and intolerances) to allow allergen-aware menu planning for all students. However, it quickly became apparent that the schools' data on student allergies and intolerances was not accurate. School Food Matters and schools worked together to contact parents to obtain current information about their child's allergies and/or intolerances. This process identified a diverse range of allergies and intolerances. It also became clear that there was confusion from the community about the distinction between allergies, intolerances and preferences.

The inaccuracy of the schools' data that they keep in the school office. A lot of that was not current, and so that was a surprise. (Stakeholder)

So, a lot of parents might have said their child was allergic, but they in fact had an intolerance – It also brought to light that there's just such a lot of variation in what people see as a problem. They might have put something down on the child's form that said the child had intolerance, for example, to egg. Then, when she phoned them, they said, "Oh, they've been eating egg a bit lately and they seem to be OK. So, I'm happy for them to try the food. (Stakeholder)

The allergy issue has been incredibly complex and unexpected. The level, number and breadth of food intolerances and allergies were completely unexpected. (Stakeholder)

3.6.1.2 Skills, knowledge and processes required to safely provide allergen-free meals

Preparing allergen-free meals requires dedicated space and equipment, and skilled foodservice staff. The central kitchen did not have systems in place to be able to provide allergen-free meals or the budget required to make the changes necessary to enable this. In addition, many school foodservice staff did not have the appropriate skills, knowledge or processes in place to safely prepare or serve allergen-free meals.

In light of the challenges in obtaining accurate student information and the absence of adequate program processes and funding to safely manage allergies and intolerances, the decision was made to not serve students with dietary requirements (with the exception of vegetarian) for the duration of the School Lunch Project. This was considered the safest course of action. The focus shifted towards developing procedures to pilot meal provision for students with allergies or intolerances in one school.

Parents of students with allergies who completed surveys or participated in discussion groups were disappointed that their child was unable to eat the lunches alongside their classmates.

Dislike my child feeling left out. (Parent)

As far as I know [name] has not been able to eat one hot lunch because of all her allergies. So occasionally she can have the dessert which has been a couple of times, the teacher was like, 'You can take two desserts then.' But other than that she can't eat anything that's on here. (Parent)

I realise there's a lot of kids and stuff, but there's been times when my kid's missed out completely because the food has been served and it's food she's allergic to. (Parent)

3. Evaluation Findings CONTINUED

3.6.2 Steps taken to enable students with allergies or intolerances to participate in the School Lunch Project

3.6.2.1 Allergen Management Working Group

In 2022, an Allergen Management Working Group was established, which comprised of an allergen management coordinator (a position created within the School Food Matters team funded by the DoH), a food safety officer, two community dietitians and other key staff from School Food Matters. This working group developed allergen management processes, including the allergen management statement that describes the procedures that School Food Matters will use to manage allergen risks across the School Lunch Project. The key considerations in the statement include: food allergen training and awareness, collection of student allergy information, standardised recipes and modified meals, food handling and anaphylaxis incident management.

3.6.2.2 Piloting the provision of meals to students with allergies or intolerances

In 2023, one School Lunch Project school was selected to trial the provision of modified meals. The term 'modified meals' was chosen as it could not be guaranteed that the meals were free of allergens due to cross-contamination. It also simplified communication as one meal may be free of multiple allergens. The Allergen Management Working Group developed allergy management procedures and protocols, modified the School Lunch Project recipes and menu to make them free of selected allergens, sourced appropriate ingredients, and conducted allergen trace testing of the tested modified meals.

The pilot school was selected because they had a skilled kitchen manager who had experience in preparing meals to meet allergen management requirements and was preparing the School Lunch Project meals from scratch. This school had a high number of students with identified food allergies and intolerances (n=36), and prior to their participation in the School Lunch Project they had run a self-funded lunch program that catered for these students.



Well, as I understand it, the school was already providing meals to students who could not get the Loaves and Fishes meals. There are some other schools that are doing similar things. So, we know that. The non-evaluation school worked out to be a good case, because the school kitchen [manager] doing it is a chef and has worked in high-risk situations with food, such as at hospitals. So she really has good knowledge about doing those [food safety] controls. (Stakeholder)

Some ingredients for the modified meals were supplied by the central kitchen and others were sourced from the local supermarket by the School Food Matters regional coordinator. The modified meals were prepared in a controlled environment in the school kitchen. Samples were sent to a laboratory to test for four major allergens – wheat, nuts, dairy, and fish. The results were all negative except for one dairy-free muffin, which had minor traces of dairy. Further swabs and testing of the kitchen revealed that contamination may have come from the Thermomix that was used to prepare the muffins.

We wanted to test for all the nuts that we're interested in and various other allergens. Because this is a pilot, we felt it was appropriate ...to try and get a little bit of information just to validate our systems. We did [get] a result that milk was in one of the muffins when we didn't think it should be. We'd attempted to make it milk-free, but it was in there. So, we've investigated that. (Stakeholder)

This process confirmed that it was not easy to produce a guaranteed allergen-free meal unless stringent measures were put in place to eliminate cross-contamination, such as ensuring separate equipment or establishing a dedicated allergen-free kitchen. This has not been possible within the project budget. While it was possible to produce meals free of some allergens, it may not be possible for all potential allergens.

So, it looks like [the school] next term will continue to offer nut-free, true nut-free, as in they're buying ingredients that don't contain nuts... So, the ingredients for these nut-free meals have to be either from Loaves and Fishes fully packaged and unopened or [the school has] to buy their own. And, because the schools don't allow nuts on-site, we're comfortable that we're not going to get cross-contamination from nuts. Whereas with the milk we'll have to [state that it may contain traces], because we've already found that we can't do it.' (Stakeholder)

Building on this pilot study, in 2024, five additional School Lunch Project schools will provide modified meals. The central kitchen will provide these modified meals from term 1, with the aim that these schools will transition to cook-from scratch in term 2. A new consent form has been developed which names the specific modified meals that will be served to the child and any ingredient/s in these dishes that may contain traces of relevant allergens. This enables parents/carers to give informed consent for their child to participate or opt out of the School Lunch Project.

3.6.2.3 Food allergen training and awareness

The Allergen Management Working Group identified a need for allergen management training and awareness education for all school staff, including those in the school foodservice.

I tend to think that training should be compulsory. There are a lot of things that could go wrong. If you thought you were saving time by not sending someone for training, you could incur enormous costs if you did the wrong thing because you had not learned about the things you are supposed to be controlling. (Stakeholder)

Currently [we are] asking schools to do national allergen course but not accessible; therefore, a shortened version with practical examples is proposed during the PD [Professional Development] workshop as all the schools will be there. (Stakeholder)

At the time of writing, allergen management training had commenced in some but not all School Lunch Project schools. The training is highly recommended but not mandatory and can be completed at training days run by School Food Matters or online.

3. Evaluation Findings CONTINUED

3.7 Local Food Procurement in the School Lunch Project

From the onset, the School Lunch Project aimed to source at least 50% of produce from Tasmanian producers. The menus were developed to include seasonal Tasmanian food produce to support local procurement. Interviews with the project implementation team and advisory committee showed a commitment to maximising the use of Tasmanian produce, especially fruits and vegetables, meat, dairy and chicken.

What we're focusing on with the School Lunch Program is products like meat, vegetables, so anything fresh, dairy. Our goal is to have most of that product procured locally, whether that's Tasmania or regional. The other products are a little bit more difficult to find local avenues. What we try and do in that case is ensure that we're getting it off Tasmanian owned wholesalers. (Stakeholder)

In the interim evaluation report, it was estimated by interviewees that 75% of fresh produce was sourced from Tasmania. In 2023, the evaluation team planned to review this estimate and determine the proportion of all food that was locally procured for the School Lunch Project. However, the process was more complicated than first thought. Hence, it is not currently possible to provide an accurate proportion of local food used in the production of the school meals. The section below outlines the commitment and processes being developed to support local food procurement and its measurement.

3.7.1 What does 'local' mean?

Most stakeholders defined local food procurement in terms of geographical distance - sourcing food produce/ingredients from as close as possible to where they are consumed. To a few stakeholders, it entailed close social connections, small farm sizes or short supply chain characteristics. Local was also influenced by the seasonality of the food produce. For fruits and vegetables, 'local' meant Tasmanian only when the crop was in season. When availability was a challenge in some seasons, or for crops that do not grow well in Tasmania, 'local' meant Australian.

For food products that are not locally produced in Tasmania such as pasta and sugar, the essence of local was achieved through sourcing the products from Tasmanian owned wholesalers rather than from the chain supermarkets.

For our project, we're looking at local in Tasmania. So anything that goes in the fridge, if you want to define it that way, that's local Tasmanian produce, whether it's milk or cheese or the chicken or the fruit and veg. (Stakeholder)

...local food procurement is sourcing fresh produce and manufactured food or ingredients that have been prepared in a local vicinity. But that local area sort of doesn't have a standard definition. (Stakeholder)

3.7.2 Steps taken to incorporate local food procurement

For the School Lunch Project, all procurement is done by Loaves and Fishes Tasmania based on their connections with local food producers. There was no local food procurement strategy or tendering system within the DECYP or Loaves and Fishes Tasmania. However, because of their involvement in the School Lunch Project, Loaves and Fishes Tasmania are in the process of developing a Food Procurement Strategy.

...we're currently working on a food procurement strategy. Up until now it's been ad hoc on how we do food procurement, but I think with the establishment of the School Lunch Project, that has sort of forced us to have a look at procuring more food locally, not just through way of donation but also purchasing. (Stakeholder)

To support their role in the School Lunch Project, Loaves and Fishes Tasmania employed a specialist procurement staff member with expertise in the fresh fruits and vegetables value chain and experience in building connections with local producers. A member of the advisory group noted that a local food procurement strategy with an enhanced invoicing system would need to be developed to determine how much local food is supplied to the School Lunch Project, as it's not always easy to determine where the food comes from.

...if you're not buying directly from a farmer, but are buying, say, from an organisation or a wholesaler or sort of an aggregator, that brings together produce from a whole range of different growers and then distributes. You won't know the exact sourcing, so you can't be sure that it is Tasmanian produce. The invoices don't provide that level of detail. If this is a key outcome of a project that you're looking to report against, then there needs to be better systems around monitoring that. (Stakeholder)

Working to defined menus had enabled Loaves and Fishes Tasmania to build relationships and purchase directly from local producers rather than relying on donations although no formal contracting had occurred. The producers have supported the School Lunch Project by selling the produce at a discounted price (cost plus small margin).

Table 21: Benefits of sourcing food locally

Benefit of local food procurement	Example quotes
Increased availability of a diverse range of fresh, seasonal food options for use in the School Lunch Project.	<p><i>And children actually being able to eat local food and enjoying the flavours of freshly picked fruit and veg, for example, or other proteins.</i> (Stakeholder)</p> <p><i>One of the benefits is freshness. I mean, we collect from one farm for instance in [town] twice a week and... we collected four tonnes of carrots on Thursday and they'd been picked two days before.</i> (Stakeholder)</p>
Enhanced environmental sustainability and costs effectiveness by reducing food miles (the distance food travels from where it is grown to where it is consumed).	<p><i>So, one of the issues we're wanting to address is that food miles of food. But it's also about environmental sustainability and using the food that is available here.</i> (Stakeholder)</p> <p><i>Also, obviously logistics. I mean, freight across the Bass Strait is hugely expensive, so the more we can source locally in Tasmania obviously the more cost effective it is for us as well.</i> (Stakeholder)</p>
High quality fresh Tasmanian produce can be enjoyed by the local Tasmanian population.	<p><i>... part of the motivation is ensuring that everyone gets the chance to eat Tassie produce because it is quality produce, and that's from a chef's point of view.</i> (Stakeholder)</p>
Partnerships and relationships established between School Food Matters, Loaves and Fishes Tasmania and schools with local growers and producers.	<p><i>...everything we do sort of builds those relationships and engages us with the farming community and the manufacturing community, but it's been amplified since the School Lunch Project. It's probably taken us to a level that we probably wouldn't have got to if we just continued to provide free food to everyone, although that's always going to be an important part of what we do.</i> (Stakeholder)</p>
Reduces food wastage by using second grade produce, which could end up in landfill.	<p><i>We also know a lot of the vegetables in some cases, like carrots, can be dug back into the ground because there's not a market for them because farmers grow more than what they need. And if they're not the right shape or size they don't get sold to the supermarkets, et cetera, so that's wasted, but we use that produce in our project.</i> (Stakeholder)</p>
Sourcing from diverse range of local producers, both small scale and mid-sized producers builds resilience in local food systems.	<p><i>The other thing is around being able to source from a greater range of producers as well, to build a little bit more resilience into our systems, and also trying to include some small and medium scale businesses as well. Because those sorts of things are very good for local and regional economies.</i> (Stakeholder)</p>

3. Evaluation Findings CONTINUED

So when you explain what the program is to the supplier, they then say, "Yeah, we think this is a great project. We want to be part of it" and they go back and look and see, okay, can they provide their produce at a competitive price or at a discounted price.' (Stakeholder)

Partnerships have developed with other growers, such as the community garden at Government House Tasmania where vegetables, herbs and spices are grown and supplied to Loaves and Fishes Tasmania for use in the School Lunch Project.

I liaise in my position, with Loaves and Fishes, for instance, to see what they can utilise....So in discussion with them and with me in discussion with the gardeners, we've started growing a lot more herbs. So things like rosemary, oregano, thyme, obviously garlic, spring onions, those sort of things which are actually expensive to buy, are really great to flavour up the meals to go into the school program. And really introduce flavours to the students. (Stakeholder)

3.7.3 Benefits of sourcing food from local growers and producers

The benefits discussed by key stakeholders of local food procurement are presented in **Table 21** with supporting quotes.

3.7.4 Supporting ethical and sustainable production

Ethical concerns were raised by some key stakeholders regarding sustainable sourcing of chicken, beef and fish. The School Lunch Project was an opportunity to support producers who adopted more sustainable methods for food production, such as purchasing from local producers who grass-feed their animals, rear chickens through a free-range system, and sell fish that is ethically produced. One such local producer has been contracted to supply ethically produced chicken.

There's potential to market and promote those producers in what they're doing with the Lunch Project. The fact that they have sustainable processes in place. They use wind power, for example, to run some of their equipment – why did we choose them? Because they supposedly care for their chickens [more] than some others. (Stakeholder)

3.7.5 Unexpected impact of local food procurement

It was reported that as purchases for the School Lunch Project increased, food donations also grew with Loaves and Fishes Tasmania reporting an increased donor base of around 20% in one and a half years. The enhanced connections with local growers made it easier for them to know they could donate, or sell at a discounted price, surplus produce which would have ended in landfill or sold as cattle feed.

... we've certainly found that once we'd start that relationship of being able to purchase, the donations then grow organically ... Six months ago, they wouldn't have known that we could use that kind of stuff and that would, possibly have been sent to landfill.' (Stakeholder)



3. Evaluation Findings CONTINUED

3.8 School Lunch Project Costings

This economic evaluation uses data collected from the schools, School Food Matters, Loaves and Fishes Tasmania, and DoH. The costs associated with providing the school lunches were reported by six schools for 2022 and ten schools for 2023. Four schools reported expenses for both years. The costs are reported by year, to show change over time with inflation and the increasing scale of the School Lunch Project.

3.8.1 Set-up costs

During 2022, the median set-up cost across the six evaluation schools was \$13,697 (range \$2,996 to \$37,492) per school (**Table 22**). In 2023, the median set-up cost was \$10,972 (range \$881 to \$30,491) (**Table 22**). This included expenses covered within the project budget, expenses covered by the schools, and salary for the DoH dietitians and food safety officer. These costs are described in more detail below.

The set-up costs covered within the project budget (paid by School Food Matters) included large items such as combi ovens, commercial dishwashers, commercial refrigerators and their associated installation costs, stock pots, food trolleys, crockery, and cutlery.

The 2022 set-up costs for the DoH included salary for dietitians to create the menu matrix, develop resources for school staff regarding pressure-free mealtimes, and guidance on portion sizes and energy/food groups, at an estimated cost of \$43,333. In addition, there were also salary costs for a food safety officer to develop general food safety resources, develop the allergen management statement and related resources, and seek legal advice, at an estimated cost of \$7,700. The set-up costs for 2023 were slightly lower for both the dietitians (\$39,000) and the food safety officer (\$4,900) and mostly related to support for the provision of modified meals, such as preparation of the allergen matrices, developing resources, review of ingredients for the modified meals and allergen testing. As the number of meals provided in 2023 was over twice the number in 2022, the DoH cost per meal was much lower in 2023.

Each year, at least one school reported paying no additional set-up costs. The school with the highest set up costs in 2022 (\$21,723) purchased a combi oven (funded by a community organisation), food processor, plumbing and electrical installation costs, and included the school business manager's salary for time spent setting up the project. The school with the highest set-up costs for 2023 (\$7,681) reported purchasing a freezer, chopping boards, and crockery and cutlery for eating the meals. Three of the schools that commenced in 2022 (schools 2, 4 and 5) reported buying additional equipment in 2023, ranging from \$70 to \$300.

3.8.2 Ongoing costs

The ongoing costs incurred by Loaves and Fishes Tasmania, School Food Matters and DoH were averaged over the total number of meals produced for all 15 schools during 2022 (N=78,832) and all 30 schools during 2023 (N=191,968) to give an average cost per meal. After factoring in the costs incurred by Loaves and Fishes Tasmania, School Food Matters, DoH and the schools, the median cost per meal for the six evaluation schools in 2022 was \$11.55 (range \$9.81 to \$21.41, **Table 23**). For the ten evaluation schools in 2023 the median cost had reduced to \$9.98 (range \$8.78 to \$13.36, **Table 23**). The breakdown of this is detailed in this section.

In 2022, the average cost for Loaves and Fishes Tasmania to produce a meal was \$3.09, which included \$1.55 for ingredients, \$0.98 for labour, \$0.48 for packaging and \$0.08 for transport. During 2023, the average cost per meal increased to \$5.23. Compared to 2022, the costs per meal in 2023 were higher for ingredients (\$2.14), labour (\$1.82) and transport (\$0.55), while the cost for packaging decreased (\$0.22). In 2023 there were also two expenses that were not included in the 2022 estimate: admin (\$0.25) and a margin (\$0.25) to allow for increases in ingredients or transport. The higher costs are due to inflation, more staff working on the project (and possible increase in salaries) and may also be more accurate due to improved tracking of expenses in 2023.

Table 22: Set-up costs (\$AUD) related the School Lunch Project

School ID*	SFM	DoH†	School	Total
2022				
1	7484.01	468.00	883.24	8835.25
2	10874.43	748.80	0	11623.23
3	855.65	1872.00	268.00	2995.65
4	12968.9	2652.00	150.00	15770.90
5	7175.45	3120.00	7500.00	17795.45
6	9216.75	6552.00	21723.18	37491.93
Total	48575.19	15412.80	30524.42	94512.41
Median	8350.38	2262.00	575.62	13697.07
Lowest	855.65	468.00	0	2995.65
Highest	12968.90	6552.00	21723.18	37491.93
Average	8095.87	2568.80	5087.40	15752.07
IQR	3207.42	1973.40	5666.31	7757.07
SD	4156.09	2208.53	8645.59	11869.40
2023				
2	0	805.69	75.73	881.42
4	0	1098.02	70.00	1168.02
5	0	1426.00	300.00	1726.00
6	0	2139.00	0	2139.00
7	11946.26	713.00	1000.00	13659.26
8	9902.33	1069.50	0	10971.83
9	10311.05	1140.80	256.00	11707.85
10	15639.61	1996.40	320.00	17956.01
11	19601.02	3208.50	7681.19	30490.71
12	4777.27	456.32	750.00	5983.59
Total	72177.54	14053.23	10452.92	96683.69
Median	7339.80	1140.80	256.00	10971.83
Lowest	0	456.32	0	881.42
Highest	19601.02	3208.50	7681.19	30490.71
Average	7217.75	1405.32	1045.29	9668.37
IQR	11946.26	1124.76	678.57	11830.01
SD	7285.81	827.06	2354.79	9468.41

SFM: School Food Matters, DoH: Department of Health.

* Four schools (schools 2, 4, 5, 6) completed the cost form in both 2022 and 2023.

† DoH expenses include dietitian and food safety officer salary, which were estimated by dividing the total salary expense by the number of meals produced (N=78,832 for all 15 schools in 2022 and N=191,968 for all 30 schools in 2023) multiplied by the number of meals at each evaluation school.

3. Evaluation Findings CONTINUED

Table 23: Ongoing costs incurred per meal by Loaves and Fishes Tasmania, School Food Matters, Department of Health, and schools related to the implementation of the School Lunch Project

School ID*	Meals per week	L&F†	SFM†	DoH†	School	Total cost per meal
2022						
1	30	3.09	3.55	1.20	13.57	21.41
2	48	3.09	3.55	1.20	3.53	11.37
3	120	3.09	3.55	1.20	3.89	11.73
4	170	3.09	3.55	1.20	1.97	9.81
5	200	3.09	3.55	1.20	2.07	9.91
6	420	3.09	3.55	1.20	3.92	11.76
Median	145	3.09	3.55	1.20	3.71	11.55
Lowest	30	----	----	----	1.97	9.81
Highest	420	----	----	----	13.57	21.41
Average	164.67	3.09	3.55	1.20	4.82	12.67
IQR	126.50	----	----	----	1.47	1.47
SD	141.57	----	----	----	4.37	4.37
2023						
2	113	5.23	1.73	0.35	1.78	9.09
4	154	5.23	1.73	0.35	2.54	9.85
5	200	5.23	1.73	0.35	1.47	8.78
6	300	5.23	1.73	0.35	6.05	13.36
7	100	5.23	1.73	0.35	4.76	12.07
8	150	5.23	1.73	0.35	2.65	9.96
9	160	5.23	1.73	0.35	2.02	9.33
10	280	5.23	1.73	0.35	2.68	9.99
11	450	5.23	1.73	0.35	4.46	11.77
12	64	5.23	1.73	0.35	3.95	11.26
Median	157	5.23	1.73	0.35	2.67	9.98
Lowest	64	----	----	----	1.47	8.78
Highest	450	----	----	----	6.05	13.36
Average	197.10	5.23	1.73	0.35	3.24	10.55
IQR	137.75	----	----	----	2.18	2.18
SD	116.00	----	----	----	1.49	1.49

IQR: interquartile range, SD: standard deviation, L&F: Loaves and Fishes Tasmania, SFM: School Food Matters, DoH: Department of Health.

* Four schools (schools 2, 4, 5, 6) completed the cost form in both 2022 and 2023.

† The cost per meal for Loaves and Fishes Tasmania, School Food Matters and DoH were calculated by dividing their total annual expenses by the number of meals produced that year (N=78,832 for all 15 schools in 2022 and N=191,968 for all 30 schools in 2023) multiplied by the number of meals at each evaluation school.

Table 24: Ongoing costs incurred by schools (per week) related to the implementation of the School Lunch Project

Cost per week (\$)						
School ID*	Meals per week	Staff	Ingredients	Consumables	Admin	Total
2022						
1	30	394.15	3.16	9.77	0	407.08
2	48	165.27	4.17	0	0	169.44
3	120	466.58	0	0	0	466.58
4	170	324.70	2.11	8.21	0	335.02
5	200	359.20	0	43.64	11.36	414.20
6	420	1611.94	0	33.71	0	1645.65
Total	988.00	3321.84	9.44	95.33	11.36	3437.97
Median	145	376.68	1.06	8.99	0	410.64
Lowest	30	165.27	0	0	0	169.44
Highest	420	1611.94	4.17	43.64	11.36	1645.65
Average	164.67	553.64	1.57	15.89	1.89	573.00
IQR	126.50	115.15	2.90	25.67	0	100.45
SD	141.57	528.03	1.84	18.38	4.64	535.56
2023						
2	113	200.87	0	0	0	200.87
4	154	391.50	0	0	0	391.50
5	200	285.00	0	9.00	0	294.00
6	300	1764.57	0	50.60	0	1815.17
7	100	455.39	0	4.75	15.88	476.01
8	150	395.16	0	2.25	0	397.41
9	160	318.96	0	4.50	0	323.46
10	280	748.00	0	1.25	1.78	751.03
11	450	2003.22	0	3.94	0	2007.16
12	64	227.00	0	5.00	21	253.00
Total	1971	6789.67	0	81.29	38.66	6909.61
Median	157	393.33	0	4.22	0	394.45
Lowest	64	200.87	0	0	0	200.87
Highest	450	2003.22	0	50.60	21.00	2007.16
Average	197.10	678.97	0	8.13	3.87	690.96
IQR	137.75	381.36	0	3.44	1.34	380.91
SD	116.00	655.56	0	15.17	7.80	662.20

IQR: interquartile range, SD: standard deviation.

* Four schools (schools 2, 4, 5, 6) completed the cost form in both 2022 and 2023.

3. Evaluation Findings CONTINUED

The average cost for School Food Matters to manage the lunch project in 2022 was \$3.55 per meal. This included salaries totalling \$280,000 (project management, regional coordinators, administration staff). The management cost in 2023 was \$1.73 per meal, including salaries totalling \$332,843 (project management, regional coordinators, administration staff, allergy management coordinator). The regional coordinators provided support and advice to schools as needed, regarding the logistics of preparing and serving the cooked lunches. School Food Matters staff increased from 3.3FTE in 2022 to 4.85FTE in 2023, to help implement the project in the additional 15 schools.

DoH provided in-kind support from dietitians and a food safety officer, in addition to the set-up costs. In 2022, the dietitian support was estimated at \$86,667 (\$1.10/meal), which included recipe development and assessment, menu maintenance, allergen management advice and development of associated documents, foodservice audits (e.g., portion sizes), and conducting professional development/training at schools and training days. The food safety officer reviewed the menu in relation to allergens and conducted general food safety workshops, at an estimated cost of \$7,700 (\$0.10/meal) in 2022. DoH ongoing costs decreased in 2023 to \$65,000 (\$0.34/meal) for the dietitians and \$2,100 (\$0.01/meal) for the food safety officer. The lower cost per meal was due to the reduced time the dietitians and food safety officer spent on the project and the number of meals provided more than doubled, compared with 2022.

There was large variation in the ongoing costs incurred by the schools (**Table 23**), which included staff costs, equipment, consumables, and administrative expenses (**Table 24**). These costs are summarised below, with more detail provided in Appendix 8. For 2022, the ongoing costs had a median of \$3.71 per meal and a range of \$1.97 to \$13.57 (**Table 23**). During 2023, the median ongoing cost was \$2.67 per meal, with a range of \$1.47 to \$6.05. For schools where teachers, principals or school nurses were involved in the School Lunch Project, the staffing costs would be lower if canteen assistants, cooks or chefs were employed, as recommended by School Food Matters. In 2022, three schools reported purchasing additional ingredients, such as bread, to supplement some of the school lunches (median \$1.06/week, range \$0 to \$4.17/week, **Table 24**).

Loaves and Fishes Tasmania started providing bread at every meal in term 4 2022 and no schools reported buying supplementary ingredients in 2023. Consumables included cling wrap, dishwashing liquid, takeaway food containers (for packaging unserved meals), baking paper and tea towels. The median cost of consumables was \$8.99 (range \$0 to \$43.64/week) in 2022 and \$4.22/week (range 0 to \$50.60/week) in 2023 (**Table 24**).

Volunteers are a valuable resource and although their labour was not included in the expense calculations above (**Table 23** and **Table 24**), as they are not a paid expense, their contribution was also considered. Two of the evaluation schools in 2022 and five of the schools in 2023 reported that volunteers helped with the School Lunch Project, ranging from 3 to 12 hours/week for 2022 and 6 to 14 hours/week for 2023. If there were no volunteers and a canteen assistant was employed to do the work, the additional salary cost for these schools would be at least \$313.68/week for 2022 and at least \$378.37/week for 2023 (based on the lowest canteen assistant salary rate each year (DECYP 2024)). All schools that used volunteers in 2023 reported the volunteers required to help run the School Lunch Project were in addition to their usual volunteers. One school that reported not using volunteers stated they used students to help with the school meals.

Each year, one school reported buying ingredients to prepare meals for students who had allergies or intolerances and could not eat the meals prepared by Loaves and Fishes Tasmania (\$8-10/week in 2022 and \$6.33/week in 2023). This expense is not included in the costings presented in this report as the School Lunch Project was not providing meals to children with allergies or intolerances (the allergy pilot school was not one of the evaluation schools) and these meals were initiated by the schools. However, additional costs will need to be factored into future iterations of the project if meals are intended to be provided to students with allergies or intolerances.



It is worth noting that some ongoing costs are not additional expenses unique to the School Lunch Project. For example, if the cooked lunches were not being provided, many schools would still need to employ a canteen manager and purchase ingredients and consumables for their canteen, and school staff would be required to supervise the students eating their lunch. In 2023, schools were asked if their staff requirements and consumable expenses were higher or lower than when they only ran the school canteen. Two schools reported no change in their staff requirements for the school lunches compared to running the school canteen. Three schools reported their previous staff were working more hours and two of these schools had also employed additional staff. For the remaining three schools all the salary expenses associated with the school lunches were a new expense compared to when they were only running the canteen. For five schools the cost of consumables was either higher or a new expense and one school said the consumables were lower than when they ran their canteen. One school did not answer this part of the questionnaire and the other two schools reported they purchased no consumables.

3.8.3 Limitations of the cost data

- School-reported costs may have been over-estimated or under-estimated, as schools were asked to retrospectively report their expenses at the end of term 3 each year.
- There may be some recall error in the associated salary costs of DoH staff, as the amount of time spent on the project was retrospectively reported.

- More accurate costing methods were used by Loaves and Fishes Tasmania in 2023 than in 2022.
- Costs allocated per meal were based on the usual number of meals per week at each school and did not consider public holidays or days where fewer meals were provided (e.g., school sporting events).

3.8.4 Potential broader economic benefits

Although not quantified systematically in this evaluation, it is worth noting potential additional economic benefits of the project. The School Lunch Project has created jobs and supported local agriculture through the use of local produce. In addition, providing students with lunches and offering the excess meals to families in need, may help to reduce some reliance on traditional food relief agencies. If the lunches were provided every day, they would remove the need for schools to provide food to students who would otherwise go without.

3.8.5 Cost of the evaluation

Menzies received \$65,000 to conduct the evaluation of the School Lunch Project. The true cost was substantially higher, estimated conservatively at \$574,220. This includes \$40,345 for direct research costs (for example, travel to schools, transcription costs, participant compensation) and \$533,875 for salary (three senior researchers and a research assistant, ~1.0FTE for three years, and four casual staff) including superannuation and oncosts.

3. Evaluation Findings CONTINUED

3.9 Attendance, Wellbeing and Engagement

3.9.1 Survey and discussion group responses on attendance

In the 2022 and 2023 follow-up surveys, 14 (21.5%) staff (teachers, support staff and principals) from eight evaluation schools reported that increased attendance was a benefit of the School Lunch Project, and 51 (78.5%) reported it was not (**Table 7**). When asked if they had noticed a change in attendance among participating students since the School Lunch Project had started, 11 (17.2%, **Table 25**) staff reported a change, with nine (14.1%) of these stating more students came to school on school lunch days. Forty-four (68.8%) reported no change in attendance and nine (14.1%) were unsure (**Table 25**).

A similar finding was observed in the discussion groups and interviews, with some staff members reporting increased attendance on school lunch days for some students. However, in general the impact of the school lunches on attendance was either not known or there was no observed difference.

I know there are some families where attendance has been an issue that they at least try to get their children to school on the day where there's a hot lunch, that they might not be here any other day, but the hot lunch days they've been here for that meal. (Principal)

I don't know whether it's having a positive impact on attendance. I just – I don't have the data to support that. (Principal)

I was hoping attendance, academic performance, learning would improve but not yet. (Principal)

Oh, attendance has been so bad this year. The data would not be very accurate this year, I don't think. I do know that we have students that do come along to get it. But that's just from feedback from what they've said. Our attendance data is pretty poor at the moment, just with sickness and things across the board. It's picked up a little bit this last term. Term three wasn't as bad, but term one and two, with so much illness in the community, we had days where we had over 100 kids out. (Principal)

3.9.2 DECYP provided attendance data

Seventeen of the 30 (57%) School Lunch Project school principals gave consent for the DECYP to provide deidentified attendance rates and Student Wellbeing and Engagement Survey data.

In the four years prior to the School Lunch Project (2018-21), attendance varied by day of the week with the lowest attendance on Fridays and Mondays (**Figure 7**). Lunches were provided on a Monday, a Friday, or both days by five schools in 2022 and 11 schools in 2023.

Eight schools started providing the lunches in 2022 and nine started in 2023. The 17 schools provided lunches one to four days per week (mean 2.4 days per week for 2022 and 2.2 days per week for 2023). Some schools provided lunches to different grades on different days. At most schools, the students in each grade only received the lunches one day per week (**Figure 8 & Figure 9**).

Table 25: Number (%) of staff (teachers, support staff and principals) reporting change in attendance, follow-up survey 2022–23

Response	2022 (N=28)		2023 (N=36)		Combined (N=64)	
	n	%	n	%	n	%
Yes	5	17.8	6	16.7	11	17.2
No	14	50.0	30	83.3	44	68.8
Unsure*	9	32.1	c	–	9	14.1

* The response option 'unsure' was only included in the 2022 survey.

Figure 7: Average attendance (%) by day of the week for all schools that provided consent for the attendance analysis (N=17 schools), 2018–21

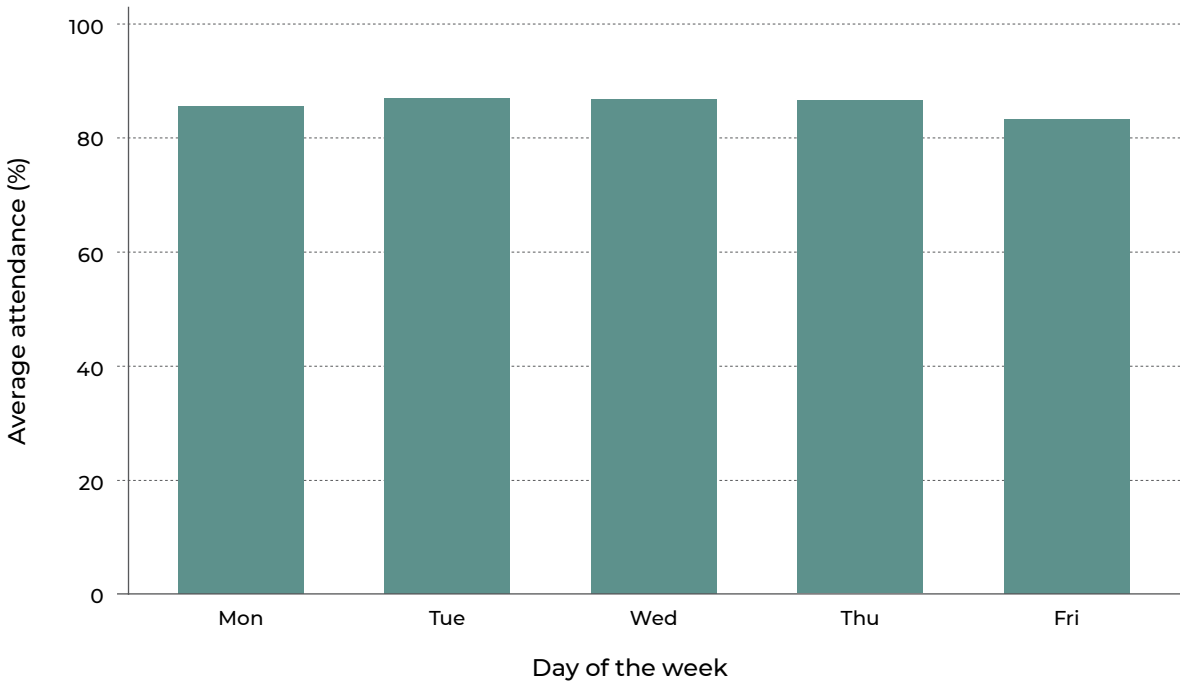
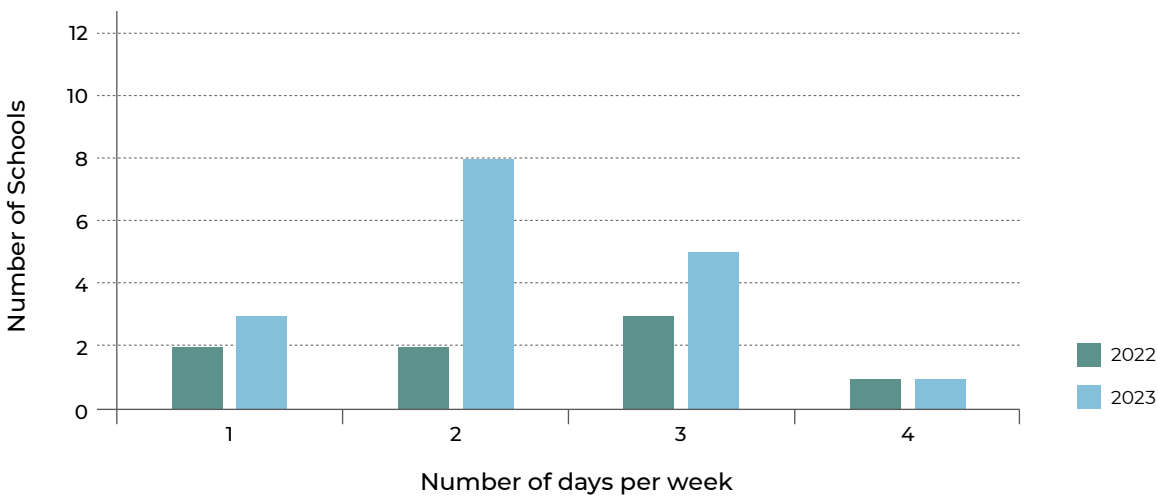
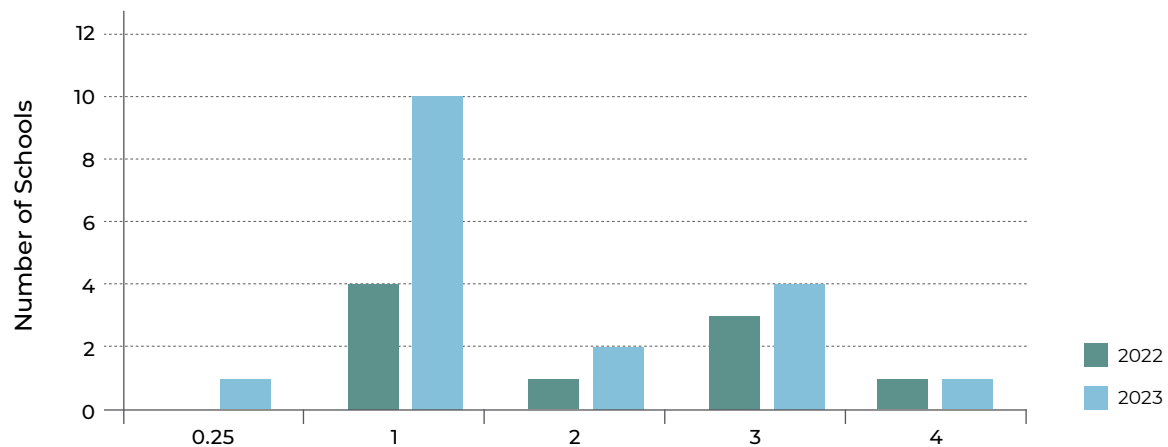


Figure 8: Number of days per week the lunches were provided, at the 17 School Lunch Project schools that consented for the attendance analysis, 2022–23



3. Evaluation Findings CONTINUED

Figure 9: Number of days per week each grade received the lunches, for the 17 School Lunch Project schools that consented for the attendance analysis, 2022–23



N=8 schools for 2022 and N=17 schools for 2023. The number of schools for **Figure 9** totals 9 for 2022 and 18 for 2023, as one school provided lunches to one grade one day/week and the rest of the school three days/week.

The school that provided lunches 0.25 days/week rotated the grades that received meals in a four-week cycle, so each grade had the lunches on two days every four weeks.

3.9.2.1 Attendance rates on school lunch days compared to non-school lunch days for School Lunch Project schools

The average percent attendance for each grade on non-school lunch days and school lunch days for the eight School Lunch Project schools in 2022 and the 17 School Lunch Project schools in 2023 are shown in **Figure 10** and Appendix 9. An attendance rate of 100% means all the students in the grade that were meant to be at school that day were at school, while an attendance of 50% means half the students were at school.

For the eight schools that provided lunches in 2022, the average attendance rate was similar on non-school lunch days (80.8%) and school lunch days (80.6%). For the 17 schools that provided lunches in 2023, the average attendance rate was also similar on non-school lunch days (83.1%) and school lunch days (82.4%) (**Table 26**).

After taking into account (statistically adjusting for) grade level, day of the week, and week of the year, attendance was similar on school lunch days and non-school lunch days in 2022 (difference 0.04 percentage points) and 2023 (difference 0.1 percentage points). Excluding the very low attendance records, days when the attendance rate was less than 50% (N=67 for 2022, N=80 for 2023) and excluding the four small schools, did not change the interpretation of the findings.

Figure 10: Average attendance (%) for school lunch days and non-school lunch days for each grade in the 17 School Lunch Project schools, 2022–23

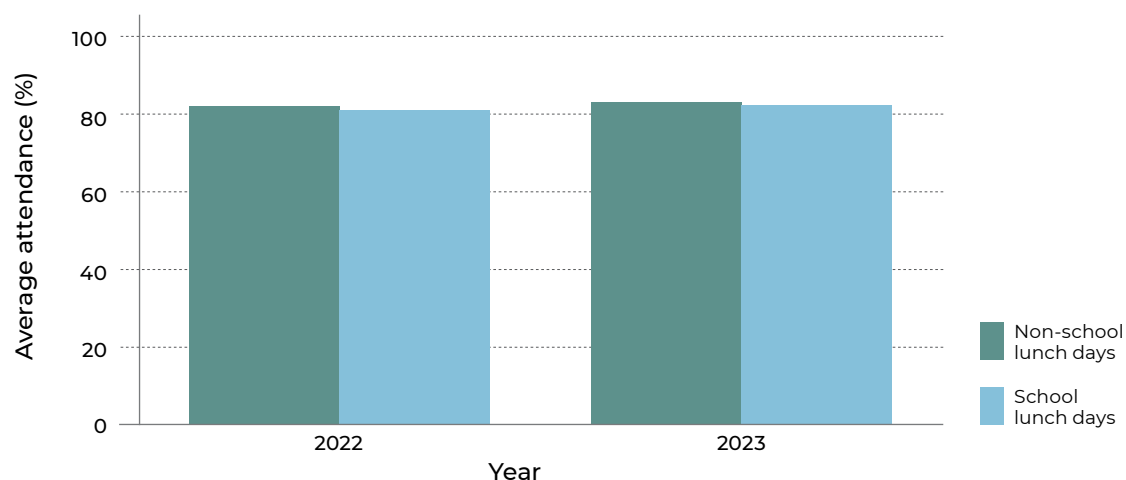


Table 26: Difference in average percent attendance on school lunch days and non-school lunch days for the 17 School Lunch Project schools, 2022 and 2023

	Raw data				Modelled data	
	Non-school lunch day		School lunch day		Model 1	
Year of attendance data	Average	SD	Average	SD	Diff	95% CI
2022 (N=6,824)	80.8	11.3	80.6	10.2	0.04	-0.5, 0.6
2023 (N=15,596)	83.1	10.6	82.4	10.4	0.1	-0.2, 0.4

SD standard deviation, Diff = difference in attendance rates between non-school lunch days and school lunch days, estimated using linear mixed models. CI confidence interval.

2022 analysis used data from week 22 until the end of the year, 2023 used attendance data from week 10 until 30th November 2023.

Model 1 adjusted for grade level, day of the week and week number.

N is the number of attendance values (attendance provided for each grade, for each day, at each school).

3. Evaluation Findings CONTINUED

3.9.2.2 School Lunch Project schools and comparison schools

Twelve of the 30 (40%) comparison school principals gave consent for the DECYP to provide deidentified attendance rates and Student Wellbeing and Engagement Survey data.

The School Lunch Project and comparison schools included in the attendance, wellbeing and engagement analysis were similar regarding school type, size and disadvantage (**Table 27**).

The exception was for district schools, where the average school size was higher among School Lunch Project schools than comparison schools, due to the largest School Lunch Project school having over twice the number of students than the largest comparison school. Of the 11 School Lunch Project schools included in this analysis, seven started providing the lunches in 2022 and four in 2023.

Table 27: Average and range for school size and disadvantage percentile for School Lunch Project (n=11) and comparison schools (n=11) included in the comparison analysis

School type	School size		Disadvantage percentile*	
	Average	Range	Average	Range
Primary				
School Lunch Project schools	239.2	142-325	11.2	5-17
Comparison schools	249.6	116-334	11.4	6-18
Secondary				
School Lunch Project schools	341.5	335-348	6.5	5-8
Comparison schools	398.5	351-446	7.5	7-8
District				
School Lunch Project schools	333.0	92-848	11.0	7-16
Comparison schools	200.8	142-291	11.8	9-15

* Disadvantage was defined using the Index of Community Socio-Educational Advantage (ICSEA) percentile.

3.9.2.3 Percent attendance for School Lunch Project schools and comparison schools

The average percent attendance for the 11 School Lunch Project and the 11 comparison schools for the years 2018 to 2023 are shown in **Figure 11**.

In 2023, the average attendance rate was similar between the 11 School Lunch Project schools (83.0%) and the 11 comparison schools (81.3%, **Table 28**). The average treatment effect of the school lunches on student attendance was estimated, adjusting for grade, the group effect

of school and changes in attendance over time in all schools. There was no significant difference in the change in student attendance after the introduction of the School Lunch Project between the 11 School Lunch Project schools and the 11 comparison schools (ATET 1.2, 95% CI -0.7, 3.0, **Table 28**).

The findings from the attendance data provided by DECYP align with the perceptions from the school staff.

Figure 11: Average percent attendance for School Lunch Project and comparison schools, 2018–23

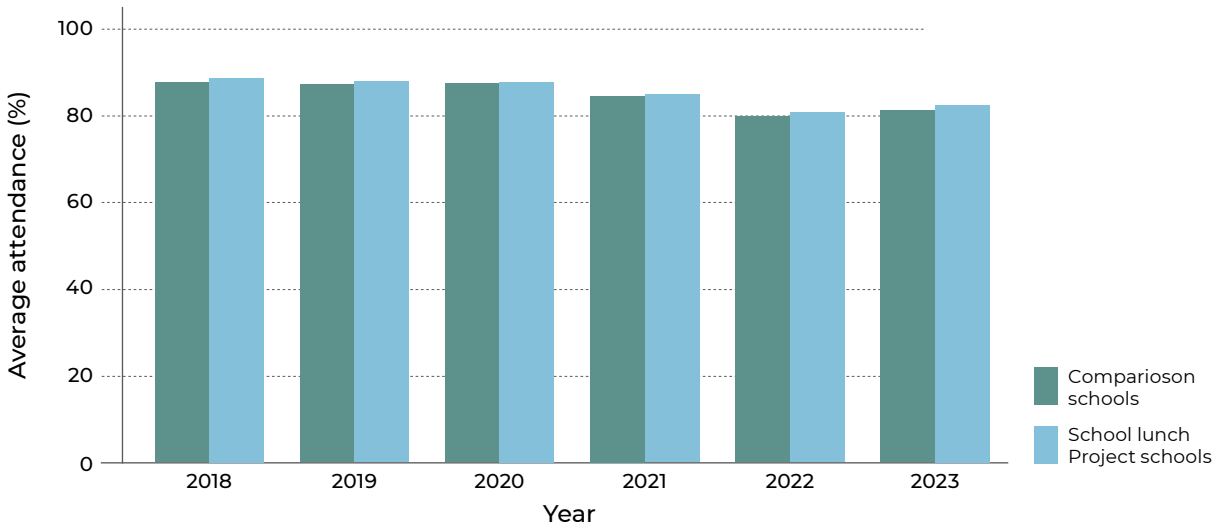


Table 28: The average treatment effect of the school lunches on the average percent attendance, in 11 School Lunch Project schools and 11 comparison schools

Raw data (% attendance)				Modelled difference-in-difference estimate	
Comparison schools		School Lunch Project schools		Model 1	
Average	SD	Average	SD	ATET	95% CI
81.3	6.9	83.0	6.0	1.2	-0.7, 3.0

SD standard deviation, ATET = estimated average treatment effect in the treated (School Lunch Project schools), CI confidence interval.

Averages (SD) are provided for 2023, when all the School Lunch Project schools were providing the lunches, however, the analysis uses the data from all 6 years (2018-23).

Model 1 adjusted for group effects (school), time effects (year) and grade.

3. Evaluation Findings CONTINUED

3.9.3 Student wellbeing and engagement

The evaluation did not collect data on student wellbeing and engagement through the surveys or discussion groups/interviews. However, there was interest from project partners regarding whether the School Lunch Project could impact wellbeing and engagement and the DECYP routinely collect data in the Student Wellbeing and Engagement Survey.

3.9.3.1 Student Wellbeing and Engagement Survey data

The Student Wellbeing and Engagement Survey analysis included data from six selected sub-domains: School climate, School belonging, Cognitive engagement, Peer belonging, Connectedness to adults at school, and Emotional engagement with teachers.

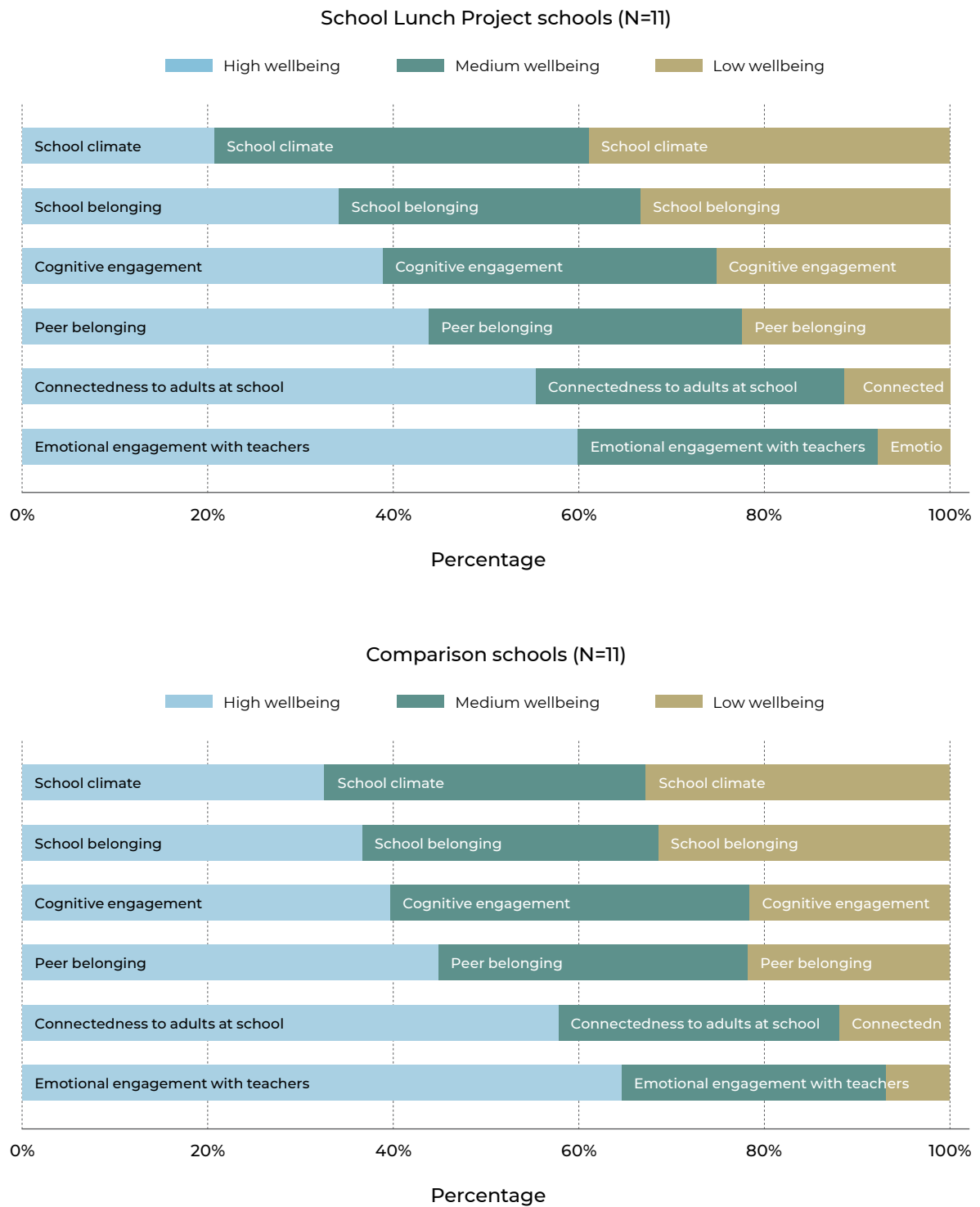
In the three years prior to the School Lunch Project (2019-21), the mean proportion of students classified as having high wellbeing for all domains tended to decrease as grade level increased (Appendix 10, **Figure 17**).

The proportion of students classified as having high wellbeing varied by domain and was lowest for School climate and highest for Emotional engagement with teachers, for both the School Lunch Project schools and comparison schools (**Figure 12**).

The overall proportion of students classified as having high wellbeing in each domain was slightly lower in the School Lunch Project schools than the comparison schools in 2022 and 2023 (**Table 29**). The modelled average treatment effect of the school lunches on student wellbeing and engagement was estimated, adjusting for grade, group effects (school) and time effects (year). There were no statistically significant differences between the School Lunch Project schools and the comparison schools in the change in the proportion of students classified as having high wellbeing after the introduction of the School Lunch Project for five of the six domains (**Table 29**). The exception was for School climate, where the relative change in the proportion of students with high wellbeing after the introduction of the School Lunch Project was 6.89 percentage points lower among the School Lunch Project schools than the comparison schools. The School climate sub-domain includes three components: 1) Teachers and students treat each other with respect in this school, 2) People care about each other in this school, and 3) Students in this school help each other, even if they are not friends.

When the analysis was repeated using low wellbeing as the outcome, the proportion of students classified as having low wellbeing was similar between the School Lunch Project schools and the comparison schools for all six domains (data not shown).

Figure 12: The proportion of students classified as having high, medium or low wellbeing for the selected domains of the Student Wellbeing and Engagement Survey, for School Lunch Project and comparison schools, 2023.



3. Evaluation Findings CONTINUED

Table 29: The average treatment effect of the school lunches on the proportion of students classified as having high wellbeing for each selected sub-domain of the Student Wellbeing and Engagement Survey, in 11 School Lunch Project schools and 11 comparison school

Sub-domain	Raw data (% high wellbeing)						Modelled difference-in-difference estimates	
	Comparison schools			School Lunch Project schools			Model 1	
	Average	SD	Range	Average	SD	Range	ATET	95% CI
School climate	32.6	20.8	0, 83.3	20.7	14.7	0, 53.6	-6.89	-12.40, -1.37
School belonging	36.7	16.6	9.1, 73.7	34.2	15.9	0, 68.4	-4.12	-9.83, 1.59
Cognitive engagement	39.7	18.0	10, 83.3	38.9	16.6	13.2, 80.0	-4.60	-9.90, 0.70
Peer belonging	44.9	14.7	17.6, 83.3	43.9	15.6	12.5, 80.0	-3.68	-9.37, 2.02
Connectedness to adults at school	57.9	13.5	28.6, 85.7	55.4	13.6	27.3, 100.0	-4.65	-10.82, 1.53
Emotional engagement with teachers	64.6	16.2	27.3, 90.9	60.0	20.4	16.7, 100.0	-5.34	-12.10, 1.42

SD standard deviation, ATET = estimated average treatment effect in the treated (School Lunch Project schools), CI confidence interval.

Average (SD) and range are for 2023, when all the School Lunch Project schools were providing the lunches, however, the analysis uses the data from all 5 years (2019–23).

Model 1 adjusted for group effects (school), time effects (year) and grade.

3.9.4 Limitations of the attendance, wellbeing and engagement data

There are several limitations that should be taken into consideration when interpreting the findings from the attendance, wellbeing and engagement analysis:

- Attendance data were provided at the grade level, not for individual students. It is possible that school lunches may improve attendance for some students, but not all.
- Data to examine the impact of cooked school lunches on subgroups of students, such as those experiencing food insecurity or more disadvantage, were not collected.
- Attendance data can be impacted by data quality issues. For example, if students were not marked as present or absent on a particular day, then they were not included in the denominator for the calculation of the attendance rate on that day.
- The evaluation team became aware anecdotally that some schools were providing lunches on non-School Lunch Project days. These lunches ranged from providing a toasted sandwich to a child in need to providing lunches to the whole school. However, this information was not systematically documented in the evaluation. If schools provided lunches to students on days that were classified as non-school lunch days, this may reduce the estimated effect of the cooked school lunches on attendance.
- Participating in the School Lunch Project was optional for students in the eligible grades with estimated participation ranging from 65-90% across the schools. The attendance, wellbeing and engagement data provided by DECYP would include students that were not participating in the School Lunch Project.

- The Student Wellbeing and Engagement Survey may be an imprecise measure and was not developed for the purpose of this evaluation. Each sub-domain includes combined responses to multiple questions, but responses to individual questions may have been more useful for this project. The evaluation team were only able to access data that had already been cleaned and categorised, giving no control over data handling and treatment.
- At most schools, students only received lunches one day per week, which may not be of sufficient 'dose' to have a demonstrable effect on wellbeing and engagement. The sample size was not large enough to examine if schools that provided lunches more often had higher levels of wellbeing and engagement (i.e., a dose-response effect).
- Younger students (Kinder to Grade 3) were not included in the wellbeing and engagement analyses as they do not participate in the Student Wellbeing and Engagement Survey.
- Attendance, wellbeing, and engagement may be impacted by broader contextual factors, such as illness or other programs or initiatives that schools were undertaking to improve attendance, engagement and wellbeing.

3.10 School Lunch Project Sustainability

The interim report on the School Lunch Project identified sustainability (i.e., the future of the project) as a concern that was raised by parents, school staff and the implementation team (Jose et al 2023). Sustainability remained a concern in 2024 with the implementation team noting that factors such as the continued reliance on goodwill and in-kind support and philanthropic funding to support the role of the project manager were not ideal. Principals also raised concerns about sustainability, particularly in relation to resourcing requirements at a school level.

Twelve of the thirteen principals surveyed said that they would continue the lunch project if funding was available and one was unsure. Ongoing assistance to address staffing requirements and costs was identified as the most critical consideration by principals to maintain and expand the project. Principals were interested in continuing to offer the school lunches and expanding the number of days they were available within their school, if the financial support was available.



3. Evaluation Findings CONTINUED

If it's all on the school to pay for the human resourcing and all on the school to go out and find the food and the products and things like that, I think it would be really challenging to do. But if it was something that was paid for, or partly paid for, then I think that's something that could be done... (Principal)

I think there would be some benefits in expanding it...It's about weighing up financial things. We've got some other financial priorities at the moment that probably are ahead of it. So, am I confident? Not 100%. (Principal)

In July 2023 the Menzies evaluation team brought together 28 stakeholders from key organisations (School Food Matters, Loaves and Fishes Tasmania, DoH, DECYP, Food Bank, Project Advisory Group) to attend a workshop focused on project sustainability. The same external facilitator was used for the sustainability and 2022 reflective workshop. A member of the organisation contracted concurrently by School Food Matters (funded by the Tasmanian Community Fund) to develop a business case to identify funding models for the project, also attended the workshop.

A process of assessing project progress against 14 recognised sustainability factors for health promotion programs (Bodkim and Hakimi 2020) was undertaken in small groups before considering what needed to change and how that might happen (**Figure 13**). Key outputs and observations were:

- Strong enthusiasm for the project from a range of partners.
- Strategic direction around the models for project delivery needed further development.
- Short-term funding and uncertainty about future commitment worked against identified planning and operational efficiencies.
- The business plan was to determine future viability of an agreed model using a range of funding sources.
- Collaborative approaches were the preferred way of working including system representatives and government departments.
- Communication about the project could be more strategic to build support.
- A longer time-frame was needed to monitor and measure impacts.

Following this workshop a small working group was established, which included at least one person from each of the key organisations (**Table 33**, Appendix 3). This group had met seven times since September 2023 to progress actions arising from this workshop and remains active in 2024.



Figure 13: Reviewing the School Lunch Project against sustainability factors and other activities.

SUSTAINABILITY FACTORS	How is the project going in each factor?	Note any issues you discuss
	GREEN: going well; ORANGE: not sure; RED: not going well	
Organisational Capacity		
Partnerships		
Strategic Planning		
Funding Stability		
Fit/Alignment		
Project Evaluation		
Capacity Building		
Champions		
Communications		
Program Implementation		
Political Support		
Project Adaptation		
Community Impact		
Political or Socio-economic Environment		



4. Evaluation Strengths and Limitations

Strengths of this evaluation included:

- The developmental evaluation approach, which entailed ongoing and iterative feedback, enabling the School Food Matters team to consider and respond to feedback in real time.
- Evaluation questions were based on the School Lunch Project program logic, guiding question development and approaches.
- The mixed-methods approach, combining quantitative and qualitative data collection methods, provided a rich and deep understanding of the project from multiple perspectives.
- The diversity of participants (students, teachers, other school staff, principals, parents, stakeholders), different sized schools (n=155 to 529 students), different school types (primary, secondary, district), from various regions of Tasmania (north, north-west, south), with varying levels of rurality (inner regional, outer regional, remote), and with different levels of exposure to the project (one or two years) represented in the evaluation provide important diversity in perspectives.
- There was diversity in demographic characteristics of parents who responded to surveys, with nearly half who had not completed year 12, and 11% having a university degree.
- Being able to collect some data prior to the commencement of the School Lunch Project enabled some insights into expectations and attitudes.
- Attainment and analysis of routinely collected attendance, engagement and wellbeing data provided by DECYP demonstrated feasibility of using administrative data for evaluation purposes, and provided another layer of depth to the evaluation.

Limitations of the evaluation design, sample, and measures include:

- The pre-post non-matched study design does not allow for casual inferences but was feasible within the resourcing constraints.
- A focus on 12 of the 30 schools due to resource constraints may impact generalisability, although there is no reason to believe the findings would markedly differ, based on information obtained from stakeholder interviews and non-evaluation school interviews and surveys.
- Although there was diversity in the demographic characteristics of parent responders, it is possible that those who participated were more engaged and supportive of the School Lunch Project than those who did not respond, and that the data reported here does not reflect all perspectives.
- The reliance on self-reported data collection measures is a potential limitation, but resourcing constraints prohibited the use of more rigorous measures (e.g., observations, 24-hour dietary recalls).
- Limitations specific to the attendance, wellbeing and engagement data are reported in Section 3.9.3.

5. Discussion

The Menzies Institute for Medical Research has undertaken a developmental evaluation of the School Lunch Project during its initiation and development phase. As a developmental evaluation the purpose is not to draw definitive conclusions about the effectiveness or impact of the project but to determine if the project has achieved its intended outcomes and to contribute to the project's ongoing development and refinement.

The School Lunch Project has provided nutritious cooked lunches to students at 30 Tasmanian schools. The first meals were provided in May 2022 to students from 15 schools, with a total of 78,832 meals provided across the year (3,108 meals per week). In 2023, 191,968 meals were provided to 4,104 students across 30 project schools (7,079 meals per week). Due to budget limitations, schools offered lunches one to four days per week with no schools offering the lunches five days per week. Similarly to school food programs internationally, most schools (n=20) in 2023 opted for a central food preparation model with meals prepared by Loaves and Fishes Tasmania. The remaining ten schools opted to prepare the lunches on site. In 2022, the school lunches were not provided to students with allergies or intolerances. In term 2 2023 a pilot study was undertaken at one school, to prepare modified meals that were suitable for students with allergies or intolerances. A commitment to local food procurement underpinned sourcing of all ingredients, with Loaves and Fishes Tasmania developing a local food procurement strategy.

The evaluation found that there is broad support from school staff, parents and students for the provision of cooked lunches at school. The project is perceived to be providing healthy lunches for all students and addressing concerns about food insecurity for some students and families. All groups of participants interviewed, including students, identified the benefits for those families and students who may be experiencing food insecurity. Many students were trying new foods at school and at home. In some schools, particularly secondary or district schools, the School Lunch Project was linked to the school curriculum, providing vocational or leadership opportunities. Increasing curriculum links to support more student involvement may assist in embedding the project in schools.

The median cost, factoring in all expenses, reduced from \$11.55 per lunch in 2022 to \$9.98 in 2023. This reduction in median overall costs occurred even though inflation increased the costs for ingredients, labour and transport (increasing the cost to produce a lunch from \$3.09 in 2022 to \$5.23 in 2023) as the administrative expenses were spread across a larger number of schools. These costs are commensurate with the range of costs for providing school lunches in European countries (Piirsalu et al 2022), particularly when considering the potential scale up still to occur in Tasmania (when scale increases the cost per meal is expected to decrease). Parents indicated a willingness to contribute towards the costs of the lunches with a median of \$3 (range \$1 – \$12) and \$5 the most identified amount. There was strong parental support for a family discount and a concern that if families were required to pay for the lunches, the students who would benefit the most may not participate in the lunch project. These concerns indicate potential support for subsidisation of meal costs for those in need as occurs in other countries (Piirsalu et al 2022).

Parents reported almost three quarters (71.5%) of students ate the lunches on the days they were available, indicating that there was potential to increase the number of students regularly eating the meals. Students consistently reported wanting more choice over the meals offered each school lunch day. Meal choice has been identified as important by young people eating subsidised school meals in the UK (Connolly et al 2023) and has been found to be associated with increased meal consumption (Cohen et al 2021). Establishing a mechanism for involving school foodservice staff, parents and students in project implementation, such as establishing an advisory group, would support ongoing discussions about students requests for more choice in the meals provided each day.

Provision of the lunches in schools was enhanced when schools had qualified staff with experience in foodservice provision, as they were able to manage the operational aspects of catering for large numbers of students and undertake cook-from-scratch meal preparation. All schools relied on a mix of staff, volunteers and/or student helpers to support meal delivery.

5. Discussions CONTINUED

Students indicated that they were interested in being involved in the preparation and delivery of the meals. Principals identified challenges for schools included staffing, physical space and equipment needs, irrespective of the number of days lunches were offered. The need for a clearer induction process that outlined expectations and requirements for schools with respect to staffing, equipment, food preparation and communication with students and parents about the meals was identified. These findings indicate the need for the implementation team to work systematically with schools to support the delivery of the project, including the possible development of resources, and longer lead-in times to plan and introduce the concept to the school community.

Attendance was similar on school lunch days and non-school lunch days within the School Lunch Project schools and when comparing attendance in School Lunch Project schools to comparison schools. Similarly, the evaluation of the New Zealand school lunch program, Ka Ora Ka Ako, also found the school lunches were not associated with attendance in the general student population (Vermillion Peirce et al 2021, 2022). However, in New Zealand, the lunches were associated with increased attendance among students identified as facing the greatest disadvantage (Standard of Proof 2024). In response to concerns about student attendance rates across Tasmania following COVID, the DECYP launched the *Every school day matters* campaign in February 2023.

This initiative and other strategies to boost attendance may also have influenced attendance rates making it difficult to distinguish the impacts of the School Lunch Project over this period.

Student Wellbeing, measured by the DECYP Student Wellbeing and Engagement survey, was similar in the School Lunch Project schools and the comparison schools. In contrast, in New Zealand where free lunches were available every day for all students, the greatest impact on wellbeing was found for students experiencing food insecurity or more disadvantage prior to the introduction of school lunches (Vermillion Peirce et al 2021, 2022).

Student wellbeing in Tasmania was captured using existing data whereas the New Zealand evaluation collected project specific wellbeing data. In this project we were unable to distinguish between different groups of students, such as those experiencing food insecurity or the greatest disadvantage, for whom the impacts of the lunches may have been greater.

Furthermore, with only 15 schools in this project offering lunches for more than one year and students in many schools only receiving the cooked lunches one day per week it was possible that there was an insufficient 'dose' of meals eaten to demonstrate these impacts. However, the project has demonstrated that it is feasible to use data routinely collected by the DECYP to capture potential impacts over the long-term.



6. Conclusion

This project has provided important insights into the challenges of catering for students with identified allergies or intolerances, including the collection of accurate student information and having adequately trained staff to implement risk management strategies at a central kitchen and school level. Work in this area is ongoing, with additional schools trialling the provision of modified meals to students with allergies or intolerances in 2024.

Similarly to many school food programs in Europe (Piirsalu et al 2022) the Tasmanian School Lunch Project was committed to supporting local food procurement. It is not possible to provide an accurate proportion of the ingredients sourced locally. However, the project has acted as a catalyst for increasing local food procurement and the development of a local food procurement strategy by Loaves and Fishes Tasmania. It has also highlighted the need to develop more robust methods for measuring where food comes from. Loaves and Fishes Tasmania's involvement in the project has strengthened their relationships with local producers resulting in increased donations of fresh food to the organisation that may otherwise have gone to waste.

A shared commitment and vision from project stakeholders to feed all Tasmanian students well at school contributed to successful project initiation, development and implementation across the two years. However, ongoing reliance on goodwill of individuals and organisations to accommodate project specific activities alongside existing workload and functions, without provision of additional resources, was identified as a risk to project sustainability. Project costs, staffing, equipment and resourcing needs for schools and key stakeholders and short-term funding were all aspects that impacted project sustainability. Long-term commitment and funding for school lunches would enable investment in critical infrastructure for schools and organisations involved in project delivery to enhance and expand the project.

This developmental evaluation shows that the School Lunch Project did meet its intended outcome of feeding students nutritious cooked lunches using local ingredients where possible, although not five days per week. Project initiation and development has resulted in the establishment of new partnerships and strengthening of existing ones, significant learnings about the provision of meals to students in schools, the development of new resources and has built capacity in new approaches to school food provision. This has only been possible through the collaborative effort of all key stakeholders, a shared vision, and goodwill. The long-term sustainability of the project will be dependent on further long-term investment of resources and building capacity for project implementation in schools and key organisations.

7. Recommendations

For implementation team and schools:

- Develop a governance structure that includes all key stakeholders, including a mechanism for incorporating school staff, students and parents/caregivers to bring together different perspectives, experiences, and knowledge.
- Develop a systematic induction process for schools that outlines expectations with respect to staffing, equipment, and other considerations.
- Continue to build on and implement actions identified in the Allergen Management Plan to ensure all students with identified allergies can participate in the project.
- Identify skills and knowledge required by staff to undertake their role in the project and provide training and support where this is lacking.
- Develop a system of capturing the source of food by wholesalers so that local food procurement can be accurately measured.
- Strengthen curriculum links and education to improve food literacy (i.e., the skills and knowledge required to make appropriate decisions about food) for students.

For policy makers/advisors:

- Consider introduction of a parent co-payment, with discounts for families with multiple school-aged children and subsidisation for families in need, to support project sustainability and enable the meals to be delivered by schools more days per week.
- Undertake a systematic audit of schools' resourcing needs (i.e., staffing, infrastructure) and seek support to address these needs to enable the meals to be delivered more frequently and contribute to planning for future scale-up.
- Build organisational capacity (School Food Matters, Loaves and Fishes Tasmania, Department of Health, Department for Education, Children and Young People, schools) to support ongoing delivery and expansion of the School Lunch Project so that cooked meals can become a normal part of the school day.
- Invest sufficient long-term funding to reduce reliance on in-kind support, goodwill, and philanthropic funding and enable investment in infrastructure to support identified project and operational efficiencies.
- Invest in evaluation to measure the effect of greater project 'dose' (e.g., meals every day for all children in the 30 schools) and longer-term outcomes such as the impact on student learning, local food procurement, social connectiveness/mental health of students and staff, employment opportunities, and food literacy.



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9. Appendices

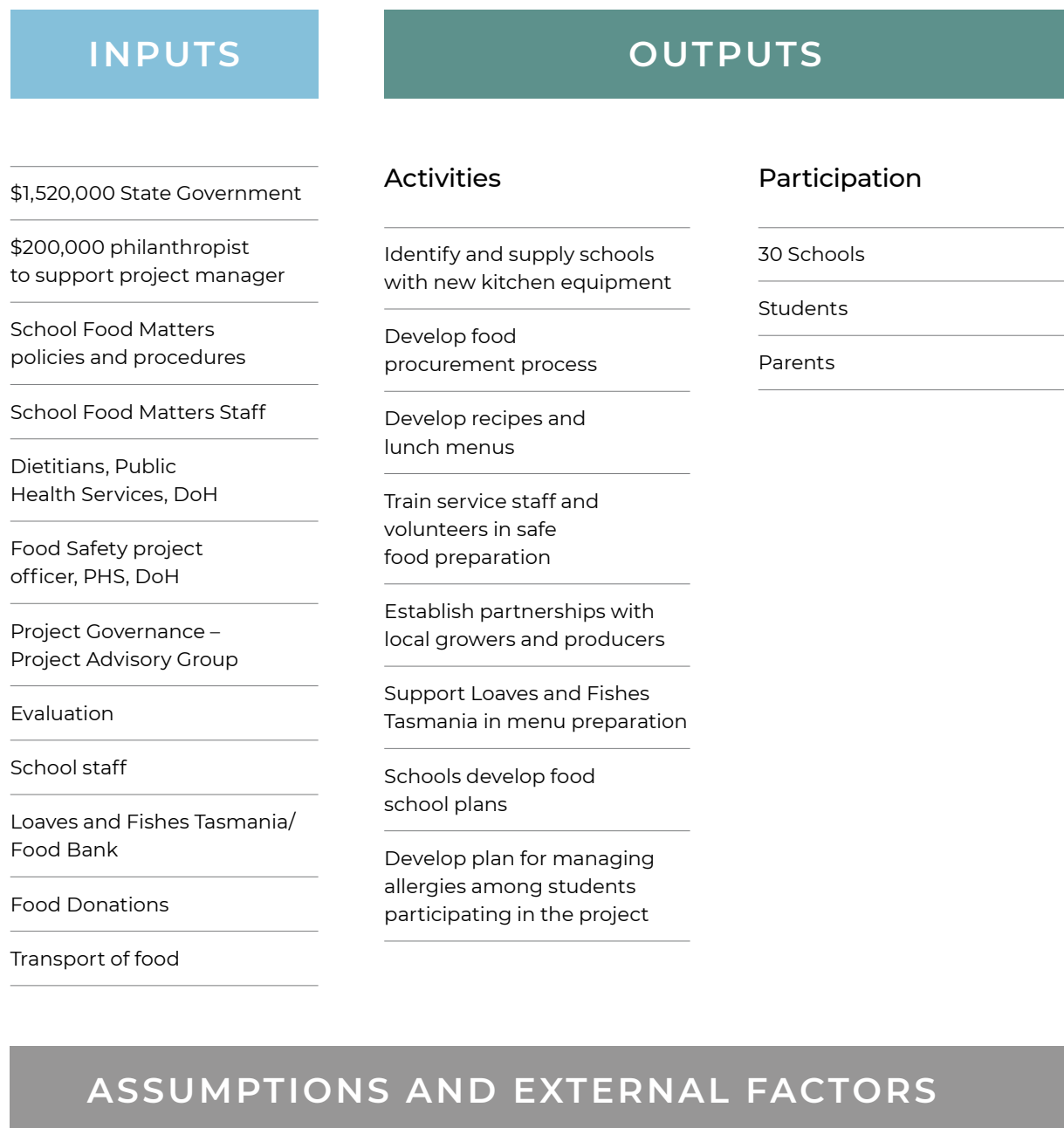
9.1 Appendix 1 – Funding of the School Lunch Project

Date	Funder	\$
2021-23	Tasmanian State Government	\$1,520,000
2022-23	Philanthropy	\$210,000
2023	Tasmanian Department of Premier and Cabinet	\$350,000
2023	Department of Health – Allergen coordinator	\$26,000
2024	Tasmanian Department of Premier and Cabinet – Cost of living	\$400,000
TOTAL		\$2,506,000



9. Appendices CONTINUED

9.2 Appendix 2 - School Lunch Project logic model



OUTCOMES

Short

Schools have the capacity to provide nutritious meals to students

Schools have the capacity to provide meals to students with food allergies and intolerances

Increased links to the curriculum

Food staff and volunteers have knowledge and skills to prepare nutritious meals

Schools implement their school food plan

Loaves and Fishes Tasmania have capacity to support meal production and transportation

Medium

Increased school attendance by students

Increase in school engagement by students

Students report increased wellbeing

Schools transition from traditional canteen service to whole school food service

Decrease consumption of discretionary foods at school

Increase consumption of fruit and vegetables by students participating in the project

Increase consumption of locally produced foods

Long

Improved learning outcomes

All students have access to nutritious, local and seasonal food at school

Student's diet better aligns with Australian dietary guidelines

9. Appendices CONTINUED

9.3 Appendix 3 – School Lunch Project governance

Table 30: School Lunch Project Advisory Group

Organisation
School Food Matters (Chair)
Public Health Services, Tasmanian Government Department of Health
Department for Education, Children and Young People
Loaves and Fishes Tasmania
Menzies Institute for Medical Research, University of Tasmania
Tasmanian Association of State School Organisations
Tasmanian Farmers & Graziers Association (Kids To Farms Project)
Slow Food Hobart and Taste of Summer
Oral Health
Foodbank Tas
Freelance Consultant
Tasmanian Government Department of Communities

Table 31: School Lunch Project Menu Working Group

Organisation
School Food Matters (Chair)
Public Health Services, Tasmanian Government Department of Health
Loaves and Fishes Tasmania

Table 32: School Lunch Project Allergen Management Working Group

Organisation
School Food Matters (Chair)
Public Health Services, Tasmanian Government Department of Health

Table 33: School Lunch Project Sustainability Working Group

Organisation
School Food Matters (Chair)
Public Health Services, Tasmanian Government Department of Health
Menzies Institute for Medical Research, University of Tasmania
Tasmanian Government Department of Premier and Cabinet
Freelance Consultant
Tasmanian Government Department for Education, Children and Young People
Loaves and Fishes Tasmania

Table 34: School Lunch Project Evaluation Advisory Group

The Evaluation Advisory Group met 11 times throughout the project (2022: June, August, September, November; 2023: March, May, July, December; 2024: February x 2; March)
Organisation
Menzies Institute for Medical Research, University of Tasmania (Chair)
School Food Matters
Public Health Services, Tasmanian Government Department of Health



9. Appendices CONTINUED

9.4 Appendix 4 – Detailed methodology

Selection of schools

During July 2021, the Tasmanian Department for Education invited all government schools with students in Kinder to Grade 12, excluding colleges (schools that only include Grade 11, 12 and 13), to complete an expression of interest to participate in the School Lunch Project. The expression of interest included information on whether the school currently provided food to students (e.g., school lunch program, canteen, breakfast club), equipment/resources available for food preparation and equipment they might need to prepare the lunches. Schools were also asked whether programs were already in place to support healthy eating, why the school wanted to be involved, and if successful, how many days they planned to provide the lunches, how many students would receive the lunches, and in what grades.

Twenty-seven schools applied in 2022. A panel that included members from School Food Matters, and the Tasmanian Departments of Education and Communities used a set of criteria to select the 15 schools to commence in 2022: seven primary schools, two secondary schools and six district schools (where primary and secondary schools are located on the same campus; includes Kinder to Grade 12). The process was repeated in 2023. Twenty-six schools applied and 15 schools were selected to commence in 2023: 11 primary schools, two secondary schools and two district schools.

Menu development

Each lunch consisted of a main and a side dish. The menu and recipes were developed by community dietitians from the Tasmanian DoH in collaboration with staff from Loaves and Fishes Tasmania and School Food Matters. The menu was based on the 2013 Australian Dietary Guidelines (NHMRC). As there were no existing Australian standards to guide the provision of school lunches, the community dietitians reviewed international guidelines and developed a set of guidelines to inform the development of the menu and portion sizes (Galloway et al. 2024).

To promote the use of seasonal ingredients, two menus were developed – a summer menu for terms 1 and 4 and a winter menu for terms 2 and 3. The team set a target of sourcing 50% of fresh produce locally in Tasmania.

Models of delivery

Each of the 30 participating schools determined how they would deliver the project to best suit their community's needs and resources. Each school made choices around which classes would participate, who would prepare and serve the meals, and where the lunches would be eaten. These decisions were made in collaboration with School Food Matters who ensured that funds were fairly distributed between participating schools. To ensure that children experiencing food insecurity were not singled out, schools were encouraged to invite entire classes, grades, or the entire school to participate in the project.

The schools had two foodservice models available to them:

1. Prepare the lunches from scratch using ingredients delivered weekly and recipes supplied, or
2. Receive a frozen/chilled main meal packaged in bulk. These meals were prepared in the central kitchen and sent to schools with instructions for reheating, along with ingredients and instructions to prepare the side dish.

The budget included funding for School Food Matters to purchase and install equipment the schools needed to prepare the meals (e.g., combi ovens, commercial dishwashers). Some schools needed to purchase additional equipment.

Evaluation approach

The Menzies evaluation team selected a Developmental Evaluation approach to frame the evaluation of the School Lunch Project. Developmental Evaluation supports social innovation, adaptive management, and systems change (Patton 2011). It can guide adaptation to emergent and dynamic realities in complex environments. The evaluators are part of the team and use evaluative approaches to facilitate project, staff, and organisational development.

Unlike more traditional evaluation (i.e., formative, process, outcome, and impact) that focus on improvement and accountability (e.g., is the project feasible?, have project activities been implemented as intended and were they effective?), Developmental Evaluation supports innovation and adaptation, which was highly relevant for this project.

Evaluation governance

The Menzies Evaluation Team consisted of three senior researchers, a project manager, a PhD student, and a casual fieldwork team. Weekly project team meetings guided the day-to-day running of the evaluation, with broader input sought from the Evaluation Working Group.

Evaluation school selection

Of the 30 schools participating in the School Lunch Project, 12 were purposively selected to participate in an in-depth evaluation. The schools were chosen to reflect diversity in geographical distribution, school type, number of days the lunches were provided, and the number of students receiving meals. To allow the evaluation to capture the challenges of setting up the School Lunch Project, schools that already had some form of school lunch program were not eligible for the evaluation in 2022 (n=5). In 2023 one school with an existing lunch program was included in the evaluation to ensure a mix of school types. The 12 selected schools included seven primary schools, two secondary schools, and three district schools. The remaining 18 schools were invited to complete a principal survey and interview, detailed below.

Ethical considerations

The evaluation was approved by the University of Tasmania Human Research Ethics Committee (ID: 26744, 14 Dec 2021) and the Tasmanian Department for Education (Education and Performance Review Committee, FILE 2021-47, 14 Dec 2021). Consent was sought from the principals of each of the 12 selected schools prior to commencement of data collection. Participation was voluntary, and all participants (school staff, parents, students) provided informed consent; parents were required to give consent for their child's participation, with students assenting to participate on the day.

Delay in project implementation and evaluation

The School Lunch Project was scheduled to commence in term 1 2022, with baseline data scheduled for collection from the six 2022 evaluation schools before the project began. However, in January 2022, the Tasmanian Department for Education announced a moratorium on research activities in schools for term 1 2022. The number of COVID-19 cases in Tasmania was relatively high at this time and the moratorium was introduced to provide “clear space” to allow schools to focus on remaining open for teaching and learning. Consequently, the implementation of the School Lunch Project was delayed. The nine non-evaluation schools commenced the School Lunch Project in term 2 from week 3 and the evaluation schools commenced from week 5. This allowed the evaluation team time to seek principal consent, liaise with school staff, distribute study information to staff and parents, and collect baseline data.

Data collection

Baseline data collection (terms 1 and 2)

Each year, baseline data were collected in the evaluation schools before the School Lunch Project commenced, during weeks 2-4 of term 2 2022, and weeks 2-4 of term 1 2023. Parents/caregivers, students (Grade 3 and above with parental consent, in 2022 only) and school staff (principals, teachers, support staff, foodservice staff and volunteers) were invited to complete a short electronic survey to collect data on what they thought about the school providing lunches to students. Questions were mostly closed-ended but some provided the opportunity to add comments. Parents were also asked about their usual school lunch preparation.

A link to the survey was distributed via email to the school staff and via school-based communication channels (e.g., newsletters, text messages, apps) to the parents. If parents provided consent for their child to participate in a survey, an email containing a link to the student survey was sent to the parent to pass on to their child.

9. Appendices CONTINUED

Follow-up data collection (terms 3 and 4)

Parents/caregivers and school staff at each of the twelve evaluation schools were invited to complete a short survey, to gain an understanding of how the School Lunch Project was being received by the school community. A link to the survey was distributed to the school staff via email and to parents, based on each schools' preference, via school-based communication channels (e.g., newsletters, text messages, apps) and/or paper-based survey packs sent home with each student participating in the School Lunch Project. In 2023, schools that commenced in 2022 were invited to circulate surveys to their staff and parents. Principals from the 18 non-evaluation schools were also invited to complete a survey.

School staff, parents, and students (in Grades 3 and above who had parental consent) were invited to participate in separate group discussions, held face-to-face at each of the evaluation schools. In some cases, members of the research team attended training sessions run by School Food Matters to hold group discussions. Where participants could not attend group discussions, individual interviews were conducted via telephone. The discussion groups with school staff collected data related to the confidence, skills, and capacity required to prepare and serve the school lunches as well as the benefits and challenges. Parent discussion groups were held at school and collected information on parents' understanding about and attitudes towards the School Lunch Project, as well as any impacts at home.

Group discussions with students included an opportunity for students to indicate whether they liked, disliked, or did not try each lunch option included on the menu. In 2022, the discussion groups were held when the students were eating their cooked lunches. On review of data collected with students in 2022 the group discussions with students in 2023 were moved to a time when they were not eating, to encourage discussion and engagement. In 2023, students were also provided with a template to write a "letter to the boss of the School Lunch Project" to share their feedback on the School Lunch Project.

To understand the process of implementing the School Lunch Project and to inform the ongoing development and implementation of the project, principals from all schools participating in the School Lunch Project were invited to complete an interview.

Discussion groups were facilitated by members of the research team, all with appropriate training and experience. All discussion groups and interviews were audio-recorded, transcribed verbatim, and detailed notes taken.

Implementation processes

Key stakeholders (School Food Matters, Loaves and Fishes Tasmania, DoH) were invited to participate in one-on-one (or small group) interviews. Data were collected during terms 3 and 4 2022 and 2023. Interviews were conducted either face-to-face or virtually with a single trained interviewer.

The findings from 2022 interviews were used to guide a reflective action learning workshop with 16 key stakeholders from School Food Matters, Loaves and Fishes Tasmania, DoH, and Menzies in December 2022. This workshop was facilitated by an external facilitator.

School descriptive data

Early in Term 3 2022 and 2023, School Lunch Project regional coordinators worked with representatives from each school to collect information on how they were implementing the School Lunch Project. Information was collected in person or via phone and included who prepared and served the meals, how dishes were cleaned, where the students ate the lunch, how the lunch was served, and what was done with food waste and leftover meals.

School Lunch Project documentation

All key School Lunch Project documentation (e.g., budget funding submission, project plans) and minutes from the School Lunch Project Advisory Group meetings and School Lunch Project team meetings were made available to the evaluation team to review.

Cost data

Records of the expenses associated with the School Lunch Project were collected. School Food Matters and Loaves and Fishes Tasmania kept records of the costs associated with preparing, cooking, and delivering the pre-cooked lunches (or ingredients to the schools cooking from scratch). The costs included ingredients (including those donated), labour (one chef/cook and four trainees for 2022 and an additional three staff for stock ordering, stock control and warehouse distribution for 2023), packaging (Cryovac packaging, containers, labels, and palletisation), and transport (distribution from the Loaves and Fishes Tasmania warehouse to the school). School Food Matters provided the costs of managing the School Lunch Project and the costs of the equipment purchased for the schools to enable them to prepare and serve the meals. DoH staff (dietitians and a food safety officer) reported the amount of time (full time equivalents or hours) they had spent on the project and the corresponding salary amount, including on-costs.

During term 3 in both 2022 and 2023, representatives from each evaluation school (e.g., principal, school business manager) were invited to complete a school cost form that detailed all relevant school-based expenses associated with the implementation of the School Lunch Project. This included the amount of staff time allocated to the project and the salary levels for these staff, the cost of any additional equipment the school purchased, additional ingredients, and other expenses associated with running the School Lunch Project. Salary expenses were reported per week. In 2022, other expenses were converted to weekly expenses based on the number of weeks the school had been providing the lunches. In 2023, the schools stated whether the other expenses reported were per week, month or term.

Attendance, wellbeing, and engagement

The principals of all 30 School Lunch Project schools were invited by email to consent to the DECYP providing attendance data, and data from DECYP's annual Student Wellbeing and Engagement Survey. An additional 30 schools, of the same school type (primary, secondary, district), with similar number of student enrolments, and ICSEA (a scale of socio-economic advantage/disadvantage) were also

invited to participate. Data from the My Schools website (<https://www.myschool.edu.au>) were used to match the schools. Schools that had not consented after 2 weeks were contacted by phone and a reminder email was also sent. The completed consent forms were emailed to staff at in the Data, Systems and Insights unit at DECYP.

The Student Wellbeing and Engagement Survey has been completed each year, by students in Grade 4 and above, during August in all Tasmanian Government schools since 2019, with the exception of 2020, when the survey was conducted in March and September. The survey was developed and validated by the South Australian Department for Education (Gregory & Brinkman 2020). Students were asked a variety of multiple-choice questions about their social and emotional wellbeing and their engagement at school. The responses were coded centrally in South Australia, into three categories: low, medium, or high wellbeing. In consultation with the Evaluation Advisory Group, the Menzies evaluation team identified six sub-domains that could potentially be impacted by the School Lunch Project: Cognitive engagement, Connectedness to adults at school, Emotional engagement with teachers, Peer belonging, School belonging and School climate.

The attendance, wellbeing and engagement data were received in January 2024. The attendance dataset included school name, year, attendance date, grade level, number of students, total minutes (sum of the number of minutes each student was timetabled to attend during that day for each grade), minutes present (sum of the number of minutes for all students marked as 'present' for timetabled periods in each grade), and attendance rate (calculated as minutes present/total minutes for each grade at each school), for each day from February 7th 2018 to November 30th 2023 (inclusive).

The Student Wellbeing and Engagement Survey dataset included year, school name, grade, term the survey was completed, number of respondents, and the proportion of students who had low, medium and high wellbeing for each sub-domain. The data were provided from 2019 to 2023 (inclusive). To prevent the potential to identify individual students, attendance data were not provided for grades that had less than five students and the Student Wellbeing and Engagement Survey data were not provided for grades when less than five students had completed the survey.

9. Appendices CONTINUED

Compensation

To compensate parents for their time and to thank them for participating in the evaluation, a \$20 EFTPOS voucher was given to up to 10 randomly selected parents at each school who completed a baseline survey and up to 10 randomly selected parents at each school who completed a follow-up survey. All parents who attended group discussions were offered a \$50 EFTPOS voucher. To thank the school staff for their ongoing support of the evaluation and their assistance in recruiting parents and staff to complete a survey and/or participate in group discussions, a \$500 voucher to improve school food facilities (e.g., cooking equipment) was offered to each of the 12 evaluation schools.

Data analysis

Quantitative survey data

Quantitative survey data were captured via the REDCap Data Management system and analysed descriptively (e.g., frequencies) using Stata software.

Descriptive data were collated to provide an overview of the different implementation methods, to summarise any shared challenges or areas of improvement, and to inform future decisions on how cooked lunches could be provided in the school setting. As the School Lunch Project regional coordinators had open lines of communication with each school, any time sensitive feedback was addressed as required.

Qualitative data

Qualitative survey data and data from interviews, group discussions, and documentation reviews underwent thematic analysis using NVivo software. Thematic analysis included reading and re-reading transcripts, coding, identifying themes, and regular analytic team meetings. Throughout the results quotes are provided. To preserve anonymity, quotes will be attributed as “staff member”, “student”, “parent” and “stakeholder”. Stakeholder organisations will not be directly attributed to quotes and schools will not be identified. In some sections the year (2022, 2023) is also provided.

Cost

Each year, the costs incurred by the schools, Loaves and Fishes Tasmania, School Food Matters and DoH were totalled and averaged over the number of lunches produced during 2022 (N=78,832) and 2023 (N=191,968) to give the average cost per lunch. School staff costs were calculated by multiplying the hourly rate by number of hours worked each week. When a range of hours was reported, the mid-point was used. For each evaluation school, the ongoing costs per lunch were calculated by dividing the weekly costs by the number of lunches provided each week. Set-up costs were defined as one-off costs incurred near the start of the School Lunch Project (e.g., equipment, installation costs). Ongoing costs were those expected to continue for the duration of the School Lunch Project (e.g., staff, ingredients). The analyses were conducted using Excel.

For 2022, it was assumed the school's ingredient, consumable and administrative expenses were estimated from the start of the School Lunch Project until the school cost form was completed, unless otherwise specified. These expenses were averaged over the number of weeks the project had been running (up until the form was returned to the evaluation team) to give the expenses per week. For schools that returned the form on a Monday or Tuesday the number of weeks was estimated up to the previous Friday. The 2023 form asked whether the reported ingredients, consumables and administrative expenses were estimated per week, month, or term.

To estimate the weekly expenses, it was assumed there were 4 weeks in a month and 10 weeks in a term. In 2023, additional questions were included to determine whether staff and volunteer requirements had changed due to the School Lunch Project and if consumable expenses were similar, more, less or a new expense, compared to when they were only running the school canteen.

During 2022, one school had a school nurse who helped with the School Lunch Project but did not include their salary as they were paid centrally. Their salary was estimated using the mid-salary value (Grade 6, Year 1) for nurses from the DECYP 2022 salary scales (DECYP 2023). To estimate the cost of volunteers, the lowest hourly rate for a canteen assistant was used from the 2022 and 2023 salary scales (DECYP 2023, DECYP 2024).

Attendance, wellbeing and engagement

Seventeen School Lunch Project schools and 12 comparison schools provided consent for the DECYP to provide the evaluation team with their attendance and Student Wellbeing and Engagement Survey data. School type, size and disadvantage level were used to select 11 School Lunch Project and 11 comparison schools with similar characteristics for the analysis.

Year 11, 12 and 13 students were excluded from the analysis, as they were not the target group for the School Lunch Project. At schools that did not provide the lunches to all students, the grades that did not receive the lunches were excluded from the analyses. The same grades from the comparison schools were also excluded. One grade in one School Lunch Project school only had attendance data for 10 days in 2022, due to the small number of students in this grade ($N < 5$). This grade was excluded from the analysis in that school and its comparison school.

Very low attendance rates ($< 30\%$) were examined to see if there was a reason for the low attendance. Data were excluded for one date as it was a state-wide teacher stop work action day. Data from two individual schools were also excluded for one day each where attendance was less than 40% for most of the grades.

For each attendance date, the day of the week, month, week number, and day of the year number were generated in Stata. Information on the days each grade was provided the meals at each school was obtained from School Food Matters. A dichotomous school lunch day variable (yes, no) was then created for each date, based on the day of the week, year and grade. This analysis used data from week 22 until the end of the year for 2022 and week 10 until the November 30th 2023, as these were the weeks that all school provided the lunches.

Linear mixed models were used to examine if attendance rates were different between the days the lunches were provided (school lunch days) and days they were not provided (non-school lunch days) for 2022 and 2023 in the 17 School Lunch Project schools. This analysis takes into account the nested groups of classes within schools. Covariates included day of the week, as attendance varied by day of the week; grade level, as attendance rates decreased with increasing grade level; and week of year as attendance varied throughout the year.

The daily percent attendance data for most schools were normally distributed with an average daily attendance of around 80% in 2022 and 82% in 2023. A small number of schools showed a spike of attendance data at 100% attendance. These spikes were due to very small numbers of students per grade level in four small schools. A sensitivity analysis was conducted excluding these schools. Another sensitivity analysis excluded the low attendance rates ($< 50\%$).

Difference-in-difference regression was used to examine if there was a difference in the average annual attendance rate between the School Lunch Project schools and comparison schools. For this analysis the average attendance rate for each grade at each school was calculated for each year. Difference-in-difference analysis is the difference in attendance between the School Lunch Project and the comparison schools and the difference between “before” intervention years and “after” intervention years. This means it takes into account change over time in all schools before the school lunches were provided and estimates the “extra” change in attendance that only occurs in the School Lunch Project schools in the years of the intervention (2022 and 2023), and not in the comparison schools (if there is any such extra change). The estimated “average treatment effect in the treated” is provided. Model 1 takes into account the group effects of school, effects of time (year) and grade level.

Student Wellbeing and Engagement Survey data

Difference-in-difference regression was also used for the Student Wellbeing and Engagement Survey. The outcome was the proportion of students classified as having high wellbeing for each sub-domain. Model 1 takes into account the group effects of school, the effects of time (year) and grade. Due to a small number of students ($N < 5$) completing the survey, data were omitted from the dataset for one grade of students from two schools in 2022 and one school in 2023. The analysis was also conducted to see if there was any difference in the proportion of student classified as having low wellbeing.

All analyses were conducted using Stata/SE 18.0 for Mac, Revision 20 Dec 2023, StataCorp.

9. Appendices CONTINUED

9.5 Appendix 5 – Demographic characteristics of parents

Table 35: Demographic characteristics of parents that completed the baseline survey

Sociodemographic characteristic	2022		2023		Total	
	n	%	n	%	n	%
Parent/caregiver 1						
<i>Highest level of schooling completed</i>						
Year 9 or equivalent or below	1	2.9	4	3.1	5	3.1
Year 10 or equivalent	6	17.1	43	33.3	49	29.9
Year 11 or equivalent	8	22.9	19	14.7	27	16.5
Year 12 or equivalent	20	57.1	58	45.0	78	47.6
Prefer not to answer*	---	---	5	3.9	5	3.1
<i>Highest qualification</i>						
No non-school qualification	5	14.3	21	16.3	26	15.9
Certificate I-IV (including trade certificate)	16	45.7	62	48.1	78	47.6
Advanced diploma/diploma	2	5.7	11	8.5	13	7.9
Bachelor degree or above	12	34.3	15	11.6	27	16.5
Prefer not to answer*	---	---	20	15.5	20	12.2
<i>Occupation group†</i>						
Group 1	9	25.7	6	4.7	15	9.2
Group 2	6	17.1	18	14.0	24	14.6
Group 3	7	20.0	29	22.5	36	22.0
Group 4	7	20.0	24	18.6	31	18.9
Not working	6	17.1	39	30.2	45	27.4
Prefer not to answer*	---	---	13	10.1	13	7.9
<i>Does child have another parent/caregiver?</i>						
No, I am a single parent	4	11.4	36	27.9	40	24.4
Yes	31	88.6	93	72.1	124	75.6

Table 35: Demographic characteristics of parents that completed the baseline survey – Continued

Sociodemographic characteristic	2022		2023		Total	
	n	%	n	%	n	%
Parent/caregiver 2						
<i>Highest level of schooling completed</i>						
Year 9 or equivalent or below	2	6.5	6	6.5	8	6.5
Year 10 or equivalent	11	35.5	32	34.4	43	34.7
Year 11 or equivalent	3	9.7	8	8.6	11	8.9
Year 12 or equivalent	15	48.4	44	47.3	59	47.6
Prefer not to answer*	---	---	3	3.2	3	2.4
<i>Highest qualification</i>						
No non-school qualification	7	22.6	19	20.7	26	21.1
Certificate I-IV (including trade certificate)	18	58.1	45	48.9	63	51.2
Diploma/advanced diploma	1	3.2	4	4.4	5	4.1
Bachelor degree or above	5	16.1	10	10.9	15	12.2
Prefer not to answer*	---	---	14	15.2	14	11.4
<i>Occupation group†</i>						
Group 1	4	12.9	6	6.5	10	8.1
Group 2	5	16.1	13	14.0	18	14.5
Group 3	8	25.8	22	23.7	30	24.2
Group 4	13	41.9	32	34.4	45	36.3
Not working	1	3.2	13	14.0	14	11.3
Prefer not to answer*	---	---	7	7.5	7	5.7

* The response option 'prefer not to answer' was only included in the 2023 survey.

† Occupation groups:

Group 1: Elected officials, senior executives/manager, management in large business organisation, government administration and defence, and qualified professionals.

Group 2: Other business managers/professionals and associate professionals.

Group 3: Tradespeople and advanced/intermediate clerical, office, sales, carer and service staff.

Group 4: Machine operators, sales/office/service/hospitality staff, assistants, labourers and related workers.

9. Appendices CONTINUED

Table 36: Demographic characteristics of parents that completed the follow-up survey

Sociodemographic characteristic	2022		2023		Total	
	n	%	n	%	n	%
Parent/caregiver 1						
<i>Highest level of schooling completed</i>						
Year 9 or equivalent or below	3	2.4	2	2.0	5	2.3
Year 10 or equivalent	27	21.8	31	31.6	58	26.1
Year 11 or equivalent	21	16.9	18	18.4	39	17.6
Year 12 or equivalent	67	54.0	44	44.9	111	50.0
Prefer not to answer*	6	4.8	3	3.1	9	4.1
<i>Highest qualification</i>						
No non-school qualification	21	17.4	14	14.3	35	16.0
Certificate I-IV (including trade certificate)	58	47.9	47	48.0	105	48.0
Advanced diploma/diploma	14	11.6	8	8.2	22	10.1
Bachelor degree or above	15	12.4	14	14.3	29	13.2
Prefer not to answer*	13	10.7	15	15.3	28	12.8
<i>Occupation group†</i>						
Group 1	12	9.8	4	4.1	16	7.3
Group 2	17	13.9	9	9.2	26	11.8
Group 3	22	18.0	26	26.5	48	21.8
Group 4	36	29.5	16	16.3	52	23.6
Not working	22	18.0	28	28.6	50	22.7
Prefer not to answer*	13	10.7	15	12.7	28	12.7
<i>Does child have another parent/caregiver?</i>						
No (single parent)	18	14.6	31	31.6	49	22.2
Yes	105	85.4	67	68.4	172	77.8

Table 36: Demographic characteristics of parents that completed the follow-up survey – *Continued*

Sociodemographic characteristic	2022		2023		Total	
	n	%	n	%	n	%
Parent/caregiver 2						
<i>Highest level of schooling completed</i>						
Year 9 or equivalent or below	7	6.7	3	4.5	10	5.8
Year 10 or equivalent	43	41.0	30	44.8	73	42.4
Year 11 or equivalent	9	8.6	2	3.0	11	6.4
Year 12 or equivalent	40	38.1	32	47.8	72	41.9
Prefer not to answer*	6	5.7	0	0	6	3.5
<i>Highest qualification completed</i>						
No non-school qualification	17	16.7	14	20.9	31	18.3
Certificate I-IV (including trade certificate)	60	58.8	35	52.2	95	56.2
Advanced diploma/diploma	5	4.9	3	4.5	8	4.7
Bachelor degree or above	6	5.9	19	14.9	16	9.5
Prefer not to answer*	14	13.7	5	7.5	19	11.2
<i>Occupation group†</i>						
Group 1	6	5.8	4	6.0	10	5.9
Group 2	8	7.7	7	10.5	15	8.8
Group 3	30	28.9	18	26.9	48	28.1
Group 4	39	37.5	27	40.3	66	38.6
Not working	9	8.7	8	11.9	17	9.9
Prefer not to answer*	12	11.5	3	4.5	15	8.8

* The response option 'prefer not to answer' was only included in the 2023 survey.

† Occupation groups:

Group 1: Elected officials, senior executives/manager, management in large business organisation, government administration and defence, and qualified professionals.

Group 2: Other business managers/professionals and associate professionals.

Group 3: Tradespeople and advanced/intermediate clerical, office, sales, carer and service staff.

Group 4: Machine operators, sales/office/service/hospitality staff, assistants, labourers and related workers.

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9.6 Appendix 6 – Principles to guide menu development

The lunches will be based on the Australian Dietary Guidelines (2013) and made up of ingredients from the five food groups (vegetables, fruit, dairy and alternatives, lean meat and alternatives, breads and cereals) with minimal processed/packaged foods.

Water will be provided at all meals. Plain milk may also be provided depending on school choice and availability.

Discretionary choices (foods that are high in added fat, sugar and/or salt and are not necessary for good health) and deep-fried food are not included on the menu.

Each day will consist of both a main option and a side (such as a salad). Bread will be available at every meal and where possible, different types will be offered.

The menu will be a 10 day rotating menu designed to introduce students to a wide variety of foods from across and within each food group. Set recipes will be provided for each day across the 10 day period. The menu will aim to encourage students to try new foods alongside familiar foods served in a range of interesting ways.

Recipes for menu items will be simple and designed to be prepared in large quantities, using simple recipes.

Where possible, at least 50% of fresh produce (fruit and vegetables) will be locally sourced (including from the school garden) and based on what is in season. Rotating menus will be designed for terms 1 and 4 and terms 2 and 3, to complement seasonal produce.

Food waste will be minimised through creativity with recipes and ingredients, combining preparation of meal components across days, managing leftovers, composting and waste management.


Where possible ingredients and menu items will be purchased with minimal packaging and served with reusable crockery and cutlery.

Where possible, items will be adapted for students with allergies/intolerances or special dietary requirements, so they can participate in the School Lunch Project.
























9.7 Appendix 7 – School Lunch Project menus for 2022 and 2023

Figure 14: Menu for Term 2 and 3, 2022








School Lunch Project Term 2 Menu




Cottage pie and green salad	 + 	Pasta bolognese and green salad	 + 
Chicken drumsticks with noodle salad and fruit and yoghurt	 + 	Fried rice and fruit salad/whole pieces of fruit	 + 
Savoury slice and Mexican corn and bean salad	 + 	Lasagna and green salad	 + 
Meatballs with sauce, cheese, couscous and green salad	 + 	Fish fingers with roast vegetables and coleslaw	 + 
Butter chicken with rice and fruit salad/whole pieces of fruit	 + 	Vegetable curry and fruit salad/whole pieces of fruit	 + 




















Note: Vegetarian options will be provided at all meals







School Lunch Program Term 3 Menu



Savoury slice and homemade baked beans	 + 	Sweet and sour chicken with rice and fruit	 + 
Cottage pie with cheese and warm green bean salad	 + 	Vegetable curry with rice and fruit and yogurt	 + 
Chicken curry with rice and fruit	 + 	Pasta bolognese with warm green bean salad	 + 
Beef chow mein with noodles and fruit and yogurt	 + 	Chicken casserole with dumplings and fruit	 + 
Minestrone soup and fruit crumble with custard	 + 	Chilli con carne and fruit and yogurt	 + 











Note: Vegetarian options are available

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Figure 15: Menu for Term 2 and 3, 2023

School Lunch Program Term 2 Menu			
	Main meal	+ Side or Dessert	
Savoury slice with homemade baked beans			Sweet and sour chicken with rice + fruit
Cottage pie with seasonal vegetables			Vegetable curry with rice + fruit and yogurt
Butter chicken with rice + fruit			Pasta bolognese with seasonal vegetables
Beef chow mein with noodles + banana & blueberry muffin			Chicken casserole with bread roll + fruit crumble and custard
Tuna pasta bake + fruit			Mexican mince with rice + yogurt
Note: Vegetarian options are available			

School Lunch Program Term 3 Menu			
	Main meal	+ Side or Dessert	
Tomato beans with cornbread + yogurt			Sweet and sour chicken with rice + fruit
Cottage pie with seasonal vegetables			Vegetable curry with rice + fruit and yogurt
Butter chicken with rice + fruit			Pasta bolognese with seasonal vegetables
Beef chow mein with noodles + banana & blueberry muffin			Chicken casserole with bread roll + fruit crumble and custard
Tuna pasta bake + fruit			Mexican mince with rice + yogurt
Note: Vegetarian options are available			

9.8 Appendix 8 – Additional ongoing cost data for schools

The school staff involved in the School Lunch Project (preparing and serving the lunches, supervising students, washing dishes) varied by school and included canteen staff, teachers, teacher aides, school nurses, and principals. The school staff costs associated with the School Lunch Project ranged from \$165 to \$1,612/week, with a median of \$377/week (**Table 24**) during 2022. For 2023, the school staff costs ranged from \$201/week to \$2,003/week with a median of \$393/week. Among the four schools that provided expense data for both years, the weekly staff expenses increased at three schools due to increased salary rates (the staff type and hours were the same as 2022 but the hourly rate had increased in 2023). At the fourth school, the canteen managers hourly rate increased in 2023 but the school nurse that worked on the project had been replaced with a teacher assistant on a lower salary rate, so the weekly salary expenses were lower in 2023 than 2022.

This demonstrates that for schools where teachers, principals or school nurses were involved in the School Lunch Project the staffing costs would be lower if canteen assistants, cooks or chefs were employed, as recommended by School Food Matters. For example, in 2022 School 1 had the highest staff costs per meal at \$13.10 whereas at the other five evaluation schools the staff cost ranged from \$1.80/meal to \$3.89/meal (median \$3.64).

At School 1 the staff costs would reduce to \$7.69/meal (from \$394/week to \$231/week) if the principal and teacher were replaced with two mid-level canteen assistants (DECYP 2023). This would reduce the total school cost per meal down from \$16.15 to \$13.57 at this school. School 1 also had the greatest amount of staff time per meal at an average of 12 minutes/meal, whereas the other five school ranged from 3 minutes/meal to 8 minutes/meal (median 6 minutes/meal).

In 2022, three schools reported purchasing additional ingredients, such as bread, to supplement some of the school lunches. The median amount spent on additional ingredients was \$1.06/week, with a range from \$0 to \$4.17/week. Loaves and Fishes Tasmania started providing bread at every lunch in term 4 2022. No schools reported buying supplementary ingredients in 2023.

Consumables included cling wrap, dishwashing liquid, takeaway food containers (for packaging unserved meals), baking paper and tea towels. In 2022, the cost of consumables ranged from \$0 to \$43.64/week, with a median cost of \$8.99. During 2023 the median cost for consumables was \$4.22/week, with a range of \$0 to \$50.60/week (**Table 24**).



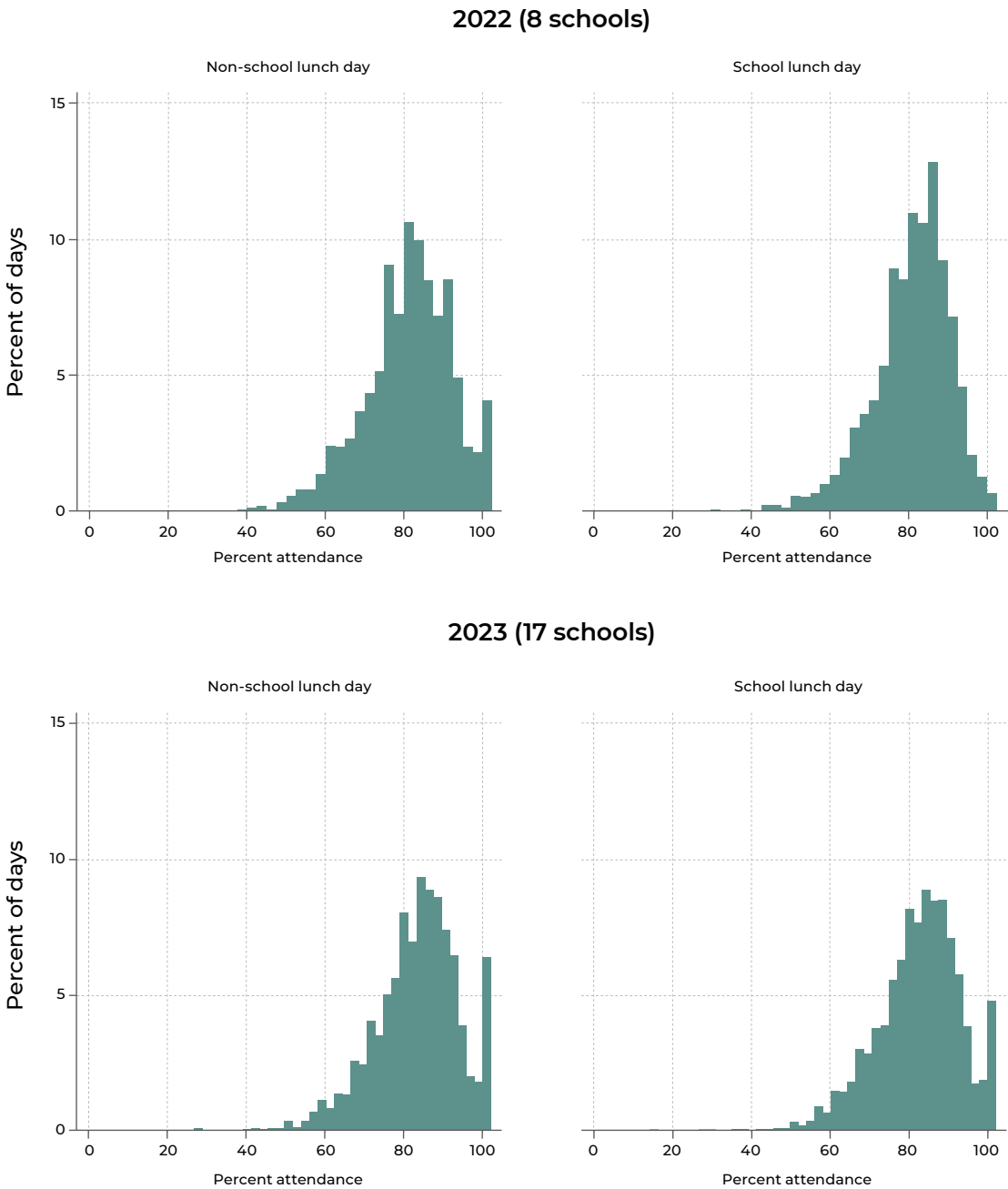
9. Appendices CONTINUED

9.9 Appendix 9 – Additional attendance data

The attendance rates on non-school lunch days and school lunch days for the eight School Lunch Project schools in 2022 and the 17 School Lunch Project schools 2023 are shown in **Figure 16**.

An attendance percentage (x-axis on the graph) is for each grade. An attendance percentage of 100% means all the students that were meant to be at school that day were at school, while an attendance percentage of 50% means only half the students were there. The y-axis shows the percent of days that had each attendance percentage.

Figure 16: Attendance on school lunch days and non-school lunch days, 2022 and 2023



9.10 Appendix 10 – Additional Student Wellbeing and Engagement Survey data

The percentage of students classified as having high wellbeing tended to decrease as grade level increased, for all six sub-domains (School climate, School belonging, Cognitive engagement, Peer belonging, Connectedness to adults at school, Emotional engagement with teachers).

Figure 17: Percentage of students classified as having high wellbeing for each sub-domain, by grade 2019-21

