



Advancing School Food Programs in Saskatchewan

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TABLE OF CONTENTS

Executive Summary	i
Study Background	1
Findings	4
Discussion & Conclusion	19

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EXECUTIVE SUMMARY

INTRODUCTION

Good nutrition impacts children’s health, wellbeing and learning, and schools offer an important setting to promote lifetime health behaviours.¹ The impact of school food programs (SFPs) goes beyond nutrition with economic, cultural, and social contributions through school food employment, food production and procurement, teaching, and learning.² SFPs also offer an economic return of \$3 to \$10 USD for every dollar invested.³ With the recent announcement of a national SFP in Canada, and the Government of Saskatchewan signing a \$15.8 million-dollar, three-year investment deal with the federal government,⁴ understanding the current operations and impacts of SFPs in Saskatchewan (SK) is critical for planning, monitoring, and evaluation of SFPs.



Little information regarding SFP operations in SK, and across Canada, exists. SK has the lowest provincial SFP funding rates in the country at 0.04\$/student/day.⁵ Good nutrition is needed for healthy growth and development in children and youth, yet the intake of ultra-processed foods makes up almost 50% of calories for Canadian children and youth.^{6,7} Further, recently released data shows a record increase in food insecurity in SK (from 20 per cent in 2022 to 28 per cent in 2023 and 31% in 2024), leaving over one in four people and one in three children food insecure.⁸ Understanding the quality, impact, and reach of SK SFPs is a timely and needed proposition.

STUDY OBJECTIVES

1. To understand SFP operations in SK school divisions, including their impacts, challenges and opportunities.
2. To support SFP investment, development, and growth in SK.

METHODS

A fifty question school-level, SFP operations survey, including program participation, impact, funding, staffing, infrastructure, and satisfaction, was administered to sixteen SK

school divisions between December 2024 and January 2025. One school staff member with oversight of the program, a principal, wellness worker, or school cook, was asked to complete the survey. The survey was adapted from previous research tools examining SFPs across the country⁹ and piloted with SK schools. The survey was reviewed by school staff and school board administrators (i.e. Superintendents, Directors of Education) from rural, urban and northern SK school divisions for content, applicability, and cultural appropriateness. Those without a SFP went through a shorter survey module.

Survey Participation

In total, 59% (n=16/27) of SK school divisions and 53% (n=401/756) of SK schools participated. The survey response rate was 84% (n=401/477) and took an average of fifteen minutes to complete. Eighty-two percent of respondents were school principals. Schools identified as representing rural (52%), urban (43%) and northern (5%) locations.

RESULTS & RECOMMENDATIONS

SK school divisions require increased and ongoing funding for food, equipment, and new school cook positions to ensure SFP quality while expanding reach.

- Nearly 3 out of 4 schools (71%) in the survey had a SFP serving breakfast, lunch and/or snack used by an estimated 54% of students. However, majority of schools (57%) were unsatisfied with the amount of SFP funding they had access to, and some schools did not offer a SFP due to lack of funding.
- Prior to national SFP funding, schools spent an estimated average of \$0.60/student/day on SFPs (including breakfast, lunch and snack), far exceeding provincial funding at \$0.04/student/day, but falling short of required spending for comprehensive SFPs. In addition, schools relied heavily on grants for program operations, making up approximately 45% of their SFP budget.
- Most schools (69%) did not have paid cooks to support their SFP. SFPs relied on in-kind support from other school staff, often beyond their regular school duties, equating to an average additional workload of 0.2 FTE/school. Even at schools where cooks were employed, schools indicated a cook staffing increase of 0.4 FTE/school was needed to best support SFP operations.
- Some schools were creating meals in spaces not meant for food preparation and some were limited in their cooking equipment and capacity for food storage. This can increase food safety risks, while limiting student program participation and the ability to serve fresh foods.

School cook training programs and opportunities are needed.

- Only half (50%) of school cooks received training opportunities, often limited to food safety. Training for school food staff in areas such as food cultures, nutrition, quantity food production, menu development, and cooking skills is recommended to improve program comprehensiveness and quality.

Provincial and regional school food manager and coordinator positions are recommended for a collaborative and systems approach to the delivery of SFPs.

- Most SK SFPs operated in silos, with limited resource sharing within and across school divisions. Lack of coordination can mean missed opportunities for cost savings such as bulk food procurement, partnership development, and sharing effective administrative and management practices.

Investments into SFPs that are culturally appropriate and environmentally sustainable are needed.

- Majority of schools (83%) did not offer Indigenous or cultural food options in their SFPs or could not regularly do so, an area of significant program dissatisfaction.
- Majority of schools (64%) offered little to no environmentally sustainable food options or practices (i.e. composting, procuring/purchasing seasonal, local foods, offering vegetarian foods).

Education and Health systems can work together through SFPs to support positive mental health in children and youth.

- The top SFP impacts rated by respondents included improved student concentration and learning (88%) and student mood (87%). Cooperation and resource sharing between these public systems in support of SFPs may lead to better mental health outcomes for children, youth and families.

CONCLUSION

This study is a novel, in-depth look at SFPs in SK. Understanding the current landscape of SFP operations and access within SK is a needed step towards enhanced funding, improved resource distribution, and continuous improvement. This study can be replicated across Canada to build evidence for SFPs and enhance comparability between regions with a common purpose of improved health, learning, and overall wellbeing for children and youth. School boards and schools can continue to work with health professionals, researchers, governments, community partners, food producers, families, and others to address and prioritize the SFP recommendations in this report.

STUDY BACKGROUND

Children spend many of their waking hours in school, consuming about half of their daily calories, making it an ideal setting to improve dietary quality and reduce health inequities.¹ Internationally, school food programs (SFPs) are one of the most successful drivers of improved health, education and economic growth,¹⁰ with the equivalent of a \$3 to \$10 return on every dollar invested.³ Universal and free SFPs, where all students regardless of household income can access a cost-free SFP, are best practices internationally for reducing program stigma and health inequities.¹¹



The importance of SFPs for health and nutrition is recognized throughout Canada. In the fall of 2023 at the Saskatchewan School Boards Association General Assembly, boards of education in SK adopted a resolution to advocate provincially and nationally with the Canadian School Boards Association for the development of a healthy, universal, and cost-shared SFP funded by the federal and provincial governments in consultation with all school boards.¹² In April 2024, the Canadian Government announced a National SFP and policy, committing \$1 billion over 5 years for provinces, territories and Indigenous communities to increase SFP reach towards a long term vision of universality.² The policy further recognizes the role of SFPs in developing food literacy, providing opportunities for local farmers and economies, promoting environmentally sustainable practices, and encouraging a high return on health, social, and economic investments.

Purpose

The purpose of this research was to understand SFP operations across SK school divisions, including their impacts, challenges, and opportunities, to support strategic SFP investment and growth across the province.

Methods

Survey Design

The survey was developed in 2023 by Saskatchewan Health Authority dietetic interns, Registered Dietitians, and the study author (K.M.). Questions were adapted from

previous research tools examining Canadian SFPs.^{9,13} The survey was reviewed by school staff and school board administrators (i.e. Superintendents, Directors of Education and School Cooks) from rural, northern, and urban school divisions for comprehension, content, design, and cultural appropriateness. The survey was pilot tested with a SK school division.

The survey included 50 questions [1] covering program operations, such as program reach, payment models, food procurement, expenses, staffing, infrastructure, food literacy, sustainability, program satisfaction and impacts. The survey had two streams to gather information from: 1) schools with a SFP; and 2) those schools without a SFP. Those schools without a SFP were assessed for future program considerations through a shortened, 10 question survey version. While most schools provide food, a SFP was defined as “a program or initiative at the school that regularly provides or sells meals and/or snacks for students (excluding programs that food is sent home for special occasions or irregularly, e.g. care packages, Christmas hampers).” This definition was to support the assessment of routine food program operations in schools. The survey finished with an open-ended comment section for further feedback.

Recruitment

School board administrators who were members of the Saskatchewan School Boards Association School Food Programs Roundtable in 2024-2025, a network that brings together SK school divisions and community partners for SFP collaboration, were invited to participate in the research study. Sixteen school divisions from Catholic and Public school sectors agreed to participate in the survey. The study was to inform divisional and provincial SFP planning, coordination and advocacy, and support Roundtable activities.

Survey Administration

The survey was hosted on Survey Monkey Inc. and sent via email to schools by a Superintendent or Director/Deputy Director of Education to all schools within their division. The survey was open for a three-week period between December 2024 and January 2025. An email reminder to complete the survey was sent halfway through the survey period. The survey invitation requested that the person mainly responsible for SFP operations and/or administration in the school fill out the survey with one survey to be completed per school. Participants were asked to provide data from the 2023-2024 school year (the last completed school year at the time of survey administration).

[1]To request a copy of the survey, please contact K.M. at kam538@mail.usask.ca

Data Analysis

Descriptive statistical analysis was used to interpret the survey data using Microsoft Excel 2021. Data was reported from highest to lowest frequency indicating most to least common responses. Likert scale responses were combined (i.e. 'Very Satisfied' and 'Satisfied'). While findings in this report are aggregated to provide a provincial snapshot, disaggregated data was returned to each participating school division to support localized planning and operational efforts.

Ethics

This research project was approved by the University of Saskatchewan Behavioural Research Ethics Board (BEH-4396).



FINDINGS

Survey Participation & Response Rate

In total, 59% (n=16/27) of SK school divisions and 53% of SK schools (n=401/756) [2] replied to the survey. The full survey took an average of 15 minutes to complete. Those without a SFP went through a shorter survey module. The completion rate of the survey was 83% (n= 331/401) and response rate was 84% (n=401/477). Eighty-two percent of respondents (n=327/401) were school principals.

Demographics

Survey responses came primarily from elementary schools (i.e. PreK/K to grade 8) (57%; n=227/401), followed by high schools (i.e. grade 9-12) (15%; n=59/401), and all grades (i.e. PreK/K to grade 12) (29%; n=115/401). In addition, 52% (n=208/401) indicated their schools were rural, 43% (n=173/401) urban, and 5% (n=20/401) northern.

School Food Program Overview

Nearly 3 out of 4 schools (71%; n=283/401) in the survey had a SFP. SFP participation was high, with an estimated 54%, or 46,974 students, using the SFP over the past year. SFPs mainly operated five days per week with lunch as the most common meal offered. Meals and snacks were mainly offered universally (see Table 1 for full results). While most schools in the survey had a SFP, 118 schools (29%) did not, with limited money for food and staff as the main barriers for initiating a program.

School Food Program Payment Models

Schools were asked to outline their SFP payment models. Most commonly, snacks were offered free for all students/families regardless of income (88%; n=196/222), followed by breakfast (87%; n= 161/185), and lunch (53%; n=117/219). Lunch was most often fully paid for by students or families (30%; n=65/219). Pay-what-you-can models, where families decide how much to pay based on a suggested amount, were uncommon (see Table 2 for full results).

“We make healthy food a priority, we also pay our own cook to manage this process. We have students that pay and others that don't based on their situations.”
[Rural school principal]

[2] Total number of schools in SK is based on the Active List of Saskatchewan Schools in 2023-24.

Table 1: School Food Program Overview

Access & Participation	71% (n=283/401) of schools had a SFP (breakfast, lunch and /or snack). SFPs were used by an estimated 54% of students at these schools.
Meals	Lunch was offered most often (88%; n=220/249) followed by snack (87%; n=214/245) and lastly, breakfast (76%; n=186/244).
Frequency	Most of the time, breakfast, snack, and lunch were offered 5 days/week (respectively, 93%; n=173/186, 92%; n=198/215, 86%; n=191/221).
Universal Coverage	Most of the time, breakfast, snack and lunch were universally offered (respectively 79%; n=147/187, 75%; n=163/216, 63%; n=142/224).

Table 2: School Food Program Payment Models Across Meals and Snack

Payment Model	Breakfast	Snack	Lunch
Free for all students/families regardless of income	87%; n=161/185	88%; n=196/222	53%; n=117/219
Free only for students/families who are low income	10%; n=19/185	9%; n=21/222	23%; n=51/219
Subsidized (i.e. a portion is paid by the school for a lower cost to students/families)	1%; n=2/185	3%; n=6/222	11%; n=25/219
Fully paid (i.e. includes prepaid lunch cards, cash, etc. that are paid in full by students/families)	4%; n=7/185	5%; n=10/222	30%; n=65/219
Pay-what-you-can (i.e. students/families are given a suggested minimum amount and payment is based on donation)	3%; n=5/185	1%; n=2/222	5%; n=11/219
Total responses	n=194	n=235	n=269

Program Revenues

Schools were asked to indicate how much money they received from the following sources: grants, donations/fundraising, money from the division, payment from students and families, and “other”. In total, 246 schools indicated they received \$3,968,760 [3] in 2023-2024, or an average of \$16,133/school/year, ranging between as little as \$0/school/year to at most, \$192,208/school/year. Approximately 45% of total revenues came from school-level grants and 30% from the school division (i.e. grants distributed through the division, re-allocated from the school division budget). The remaining 12% came from donations and fundraising, and 11% from family/student payments. One percent came from the category of “other”.

Program Expenses

Schools were asked to indicate how much money was spent in 2023-2024 on the following items: food, staffing, equipment purchasing, equipment repairs/maintenance, food and nutrition activities/land-based learning (i.e. cooking, harvesting, etc.), cleaning/kitchen supplies, training for food staff, and “other”. In total, 249 schools indicated they spent \$5,035,760 [4], or an average of \$20,224/school/year, with some schools spending as little as \$0/school/year and at most, \$220,000/school/year. Sixty-eight percent was used for food, 16% for staffing (where applicable), 7% for equipment purchasing, and 8% for the remaining items.

“We provide bagged lunches for students who need them (self-identify or parents call to let us know) and for students who forget their lunches. We don't advertise the program. I am sure that if we did, more families would identify need.”
[Rural school principal]

Average Student Spending

Based on estimated SFP student participation in 2023-2024 (46,974 students), and using

[3] Total program revenues are likely underestimated. For example, food or meal donations with no estimated cost value, and in-kind contributions such as students preparing meals as part of curriculum, were excluded.

[4] Total program expenses are likely underestimated. Labor and equipment expenses are often covered by the school division and therefore likely missing in some survey responses. As well, volunteer labour and contributions by staff, who outside of their regular school duties supported SFP operations, were not accounted for.

estimated total program expenses, schools spent an average of \$0.60/day/student [5] on SFPs. For food alone, schools spent an estimated average of \$0.41/day/student.

School Food Program Impacts

The impacts of SFPs were well described in this study. These impacts included: better concentration and learning (88%; n=234/267); improved student mood (87%; n=231/267); and increased intake of nutritious foods (78%; n=209/267) (see Table 3 for full results).

Table 3: School Food Program Impacts

Option	Response	Option	Response
Better concentration and learning	88% (n=234/267)	Improved or enhanced connection with families	38% (n=101/267)
Improved student mood	87% (n=231/267)	Opportunities to put into practice what students are learning about food and eating	32% (n=86/267)
Increased intake of nutritious foods	78% (n=209/267)	Learning table manners and social skills	31% (n=83/267)
Increased attendance	49% (n=130/267)	Ability to teach about and share food cultures	22% (n=59/267)
Improved or enhanced connections with community partners	47% (n=126/267)	Other	12% (n=31/267)
Support for local producers/businesses	43% (n=115/267)	Total Responses: n=1,405	

[5] Average student spending included snack, breakfast and lunch served daily and was based on a 180-day school year.

Focus on Nutrition

Schools were also asked to select the average level of food processing for meals and snacks. Breakfast and snack tended to be the most “pre-packaged/processed” (30%; n=54/181, 39%; n=83/214, respectively), whereas lunch was most frequently “from scratch/homemade” (40%; n=87/216).

Schools can work towards improved nutrition in their SFPs. When asked, how well does your SFP support healthy eating by making healthy food available and/or by limiting the availability of unhealthy foods? (i.e. healthy foods are minimally processed whole grain foods, protein foods and vegetables & fruit. Unhealthy foods are highly processed foods high in sugar, salt and/or saturated fat), 42% (n=112/267) indicated healthy options are regularly available and/or unhealthy foods are rarely available (see Table 4 for full results).

“So many students don't feel like eating breakfast but around 9:30 am, they are very hungry. If we could provide nutritious and hearty food choices at that time, it would go a long way to increasing student focus and energy to participate in activities.”
 [Urban school principal]

Table 4: Program Nutrition

Option	Respondents
The foods provided or sold offer almost no healthy options and are almost always unhealthy foods	1%; n=3/267
We try to make some healthy options available and/or try to limit unhealthy foods but are not regularly able to do so	22%; n=58/267
Healthy options are regularly available and/or unhealthy foods are rarely available	42%; n=112/267
Healthy options are always available and/or unhealthy foods are rarely available	31%; n=84/267
Providing healthy foods is fully supported and implemented by our school community	13%; n=34/267

Infrastructure and Equipment for Eating, Food Preparation and Storage

Schools were asked to indicate where students primarily consumed food prepared by the SFP and what type of space was used for food preparation. Some schools are eating and preparing meals in non-designated or infrastructurally inadequate food areas. Most commonly students ate in their own individual classroom (80%; n=209/260), followed by a communal area like gym, band room or foyer (18%; n=48/260), the school cafeteria (13%; n=33/260), and the school kitchen (8%; n=21/260). Food was most often prepared in a home-style kitchen (55%; n=143/260), followed by a commercial/industrial kitchen (28%; n=74/260), or classroom or non-designated food area (3%; n=7/260). Food was prepared off-site in 14% (n=36/260) of schools.



Schools were asked about their cooking, and food storage and equipment needs. With current scale of programming, many schools indicated a moderate need for additional food storage and cooking equipment (i.e. refrigerators, freezers, stoves, shelving). Thirty-eight percent of schools (n=100/260) indicated some new cooking equipment was needed (see Table 5 for full results). Thirty-seven percent (n=96/260) of schools indicated some new storage and equipment was needed (see Table 6 for full results).

Table 5: Cooking Equipment Needs

Option	Respondents
All new cooking equipment is needed	5% (n=12/260)
A lot of new cooking equipment is needed	13% (n=35/260)
Some new cooking equipment is needed	38% (n=100/260)
A little new cooking equipment is needed	25% (n=64/260)
No new cooking equipment is needed	19% (n=49/260)

Table 6: Food Storage and Equipment Needs

Option	Respondents
All new storage and equipment are needed	3% (n=8/260)
A lot of new storage and equipment are needed	14% (n=36/260)
Some new storage and equipment are needed	37% (n=96/260)
A little storage and equipment are needed	25% (n=66/260)
No new storage and equipment are needed	21% (n=54/260)

“Not having a dishwasher is a big part of not being able to provide healthy homemade snacks. With one sink in the staffroom, it is hard to prepare food and then clean up after and sanitize plates and cutlery.”
 [Urban school principal]

Food Purchasing/Ordering

“I shop every week to buy food for our breakfast/snack program [in an urban center], on my own time, with my own vehicle, using my own gas which I am not reimbursed for. There is no way our local convenience store could provide these items for us at a reasonable price, so our only option is to shop at the larger center.”
 [Rural school wellness coordinator]

Schools were asked to best describe how food for the SFP was typically received to the school. Food delivery to schools was rare. Forty-five percent (45%; n=116/260) of the time staff or volunteers went to the grocery or wholesale store to pick up food for the SFP; food was never delivered to the school (See Table 7 for full results). In addition, most SFPs operated in silos, with limited food purchasing/ordering among schools. Food was most often ordered/purchased by the school for the school (91%; n=237/260). In other cases, the food ordering/purchasing for the school was done by another school or external organization (8%;

n=21/260) or food was ordered/purchased for the school and another school(s) (1%; n=2/260).

Table 7: How Food is Received to Schools

Option	Respondents
Staff or volunteers NEVER go to the grocery or wholesale store; food is always delivered to the school	5% (n=12/260)
Staff or volunteers rarely go to the grocery or wholesale store; food is usually delivered to the school	12% (n=32/260)
Staff or volunteers sometimes go to the grocery or wholesale store; food is sometimes delivered to the school	20% (n=52/260)
Staff or volunteers usually go to the grocery or wholesale store; food is rarely delivered to the school	18% (n=48/260)
Staff or volunteers ALWAYS go to the grocery or wholesale store; food is never delivered to the school	45% (n=116/260)

Supporting Local Grocers

Many schools are purchasing food from grocers in their local communities. When asked about local food purchasing, 46% (n=119/260) of schools always purchased food from grocers in their community. Twenty-four percent (n=63/260) usually did, whereas 20% (n=51/260) sometimes, 7% (n=19/260) rarely, and 3% (n=8/260) never purchased food from grocers in their community.

Integrating Food and Nutrition-Related Learning

Schools can improve food-related learning in the classroom, with most classrooms not regularly participating in such activities. When asked, “how well does your school integrate food-related activities in the classroom and/or in teaching activities (i.e. food preparation, cooking, gardening or composting activities, lessons that discuss food, nutrition, food

“In a perfect world, our school food program meals are free, subsidized with garden and hydroponic food [grown at our school].”
[Rural school principal]

culture, environmental topics linked to food, etc.)”, 45% (n=116/256) indicated from time to time food-related teaching activities were used (see Table 8 for full results).

Opportunities for food preparation/cooking activities were also uncommon. Schools were asked, “to what extent are food preparation/cooking activities and training opportunities available at your school for students (food preparation activities included opportunities for hands-on learning about food skills such as preparing and sharing foods in class, cooking clubs, after-school programs, teaching cafeterias, or special events related to food preparation run by community organizations)?”

Thirty-eight percent (n=96/256) of schools indicated they had regular food preparation activities available in the curriculum or after-school activities (for some students or classes) (see Table 9 for full results).

“Students take my [cooking] class to learn to prepare and sell food in a commercial setting. I work with approximately 100-120 students each day [...]. This is a cost recovery program, but I would like to receive funding to provide kids who cannot afford even the low cost items something to eat.”
[Urban school teacher]

Table 8: Integration of Food-Related Activities in the Classroom

Option	Respondents
We don't use or talk about food in any teaching activities	3% (n=8/256)
From time to time food-related teaching activities are used	45% (n=116/256)
Food-related activities are used regularly by some teachers only	35% (n=90/256)
Food-related activities are well integrated into our school's approaches to teaching	13% (n=32/256)
Our food-related teaching activities are well-developed, integrated, and are a big part of our school community	4% (n=10/256)

“The price of food is very high in the north and having the Northern food store as our only option makes it very difficult to have variety of fresh fruit, drinks, meals, etc. It is very stressful to keep [our breakfast] program afloat year after year, making sure we have enough funds.”
[Northern school principal]

Table 9: Opportunities for Student Food Preparation/Cooking

Option	Respondents
We don't have any food preparation activities	11% (n=28/256)
We have occasional "one-off" activities for some students	37% (n=95/256)
We have regular food preparation activities available in the curriculum or after-school activities (for some students or classes)	38% (n=96/256)
Food preparation activities are well integrated into school courses and extra-curricular activities (and most students have opportunities to prepare food)	10% (n=26/256)
Food preparation activities are highly integrated across the school, with multiple opportunities for students in all grades to learn about preparing food	4% (n=11/256)

Environmentally Sustainable Practices

To gauge the degree of environmentally sustainable practices, participants were asked, “to what extent are environmentally sustainable food or practices incorporated in your school food program (environmentally sustainable food options could include procuring/purchasing seasonal, local, minimally processed, minimally packaged, vegetarian and/or organic foods, etc. and/or offering reusable dishware and cutlery, composting, etc.)?” Improvements in this area are needed. Forty-six percent (n=117/254) indicated they tried to make some environmentally sustainable options available but were not regularly able to do so (see Table 10 for full results).

“Time constraints have limited our ability to include students in nutrition programming. All of our time is needed for food preparation. Budget cuts and increased food prices have affected the quality of our nutrition program.”
 [Urban school principal]

Using School Grown Food

Schools were asked how frequently food produced on the school grounds (i.e. from grow towers, school gardens) was used in their SFP. The use of food produced on school grounds in SFPs was uncommon. 70% (n=182/260) of schools never used food that was produced on the school grounds in their SFP. Nineteen percent (n=50/260) rarely did, 8% (n=21/260) sometimes did, 1% (n=2/260) usually did, and 2% (n=5/260) always did.

Using Donated Food

Schools were asked how frequently donated food was used in their SFP. The use of donated food in SFPs was uncommon. Twenty-three percent (n=59/260) never used donated food in their SFP, 30% (n=77/260) rarely did, 30% (n=77/260) sometimes did, 5% (n=13/260) usually did, and 13% (n=34/260) always did.

Table 10: Environmentally Sustainable Food Practices

Option	Respondents
The foods provided or sold offer almost no environmentally sustainable options.	18% (n=46/254)
We try to make some environmentally sustainable options available but are not regularly able to do so	46% (n=117/254)
Environmentally sustainable options are regularly available	17% (n=42/254)
Environmentally sustainable options are always available	2% (n=5/254)
Ensuring the availability of environmentally sustainable food and dishware is fully supported and implemented by our school community	1% (n=3/254)
I don't know	16% (n=41/254)

Supporting Food Cultures

Access to culturally relevant foods in SFPs was uncommon. When asked, “to what extent are the foods provided in your SFP relevant to the diverse food cultures of your students (i.e. serving traditional or Indigenous foods, providing foods from different cultures, etc.)”, 42% (n=106/254) indicated they tried to make some Indigenous or cultural foods

options available but were not regularly able to do so (See Table 11 for full results).

Table 11: Culturally Appropriate and Indigenous Foods and SFP Practices

Option	Respondents
The foods provided or sold offer no Indigenous or cultural food options	41% (n=105/254)
The foods provided or sold offer almost no Indigenous or cultural food options	42% (n=106/254)
Indigenous or cultural foods options are regularly available	7% (n=19/254)
Indigenous or cultural foods options are always available	2% (n=6/254)
Providing Indigenous or cultural foods is fully supported and implemented by our school community	3% (n=8/254)
I don't know	4% (n=10/254)

School Food Program Staffing

Schools were asked about paid school food staff. Most significantly, majority (69%; n=178/259) of schools had no paid school cooks to support their SFP. For schools with school cooks, most positions were part time; 54% (n=43/80) of school cooks had positions of 0.5 FTE or less. In addition, majority of schools (73%; n=58/80) indicated additional school cook hours were needed to support food preparation (65%; n=52/80) and cleaning up after meals (58%; n= 46/80). The additional required hours amounted to an average increase of 0.4 FTE for each school.



School Cook Training

Schools were asked how many hours of paid training/professional development were available for school cooks each year, and what types of training the workers received. Only 50% (n=40/80) of school cooks were offered training or professional development.

Of those who received annual training, 33% (n=26/80) received 1-5 hours, 10% (n=8/80) received 6-10 hours, 5% (n= 4/80) received between 11-20 hours, and 3% (n=2/80) received 40 or more hours. Areas of training largely included food safety, sanitation and WHMIS (65%; n=52/80), followed by nutrition and healthy eating (33%; n=26/80) (see Table 12 for full results).

Contributions of Volunteers

Schools were asked about volunteer support (i.e. parents/community members) for their SFP. Significantly, 69% (n=179/258) of schools did not have volunteers assisting with the SFP. Thirty-one percent (n=79/258) of schools had SFP volunteers, contributing an estimated 600 hours each week. The primary roles of these volunteers included food preparation (69%; n=55/80), serving food (53%; n=42/80) and cleaning up after meals (45%; n=36/80).

Table 12: Training Offered to School Cooks

Option	Respondents
Safety, sanitation and WHMIS	65% (n=52/80)
Nutrition and healthy eating	33% (n=26/80)
Basic cooking principles	19% (n=15/80)
Menu planning	19% (n=15/80)
Promoting positive mental health and well-being	18% (n=14/80)
Culture, diversity and equity	16% (n=13/80)
Kitchen management	13% (n=10/80)
Quantity food production	11% (n=9/80)
Preparing special diets	5% (n=4/80)
Other	14% (n=11/80)
Total Responses=169	

Contributions of Other School Staff

Schools were asked, “does your program have unpaid school staff who support the school food program? (i.e. staff, who outside of their regular school duties, support the operations of the school food program)?” Fifty-two percent (n=134/258) of schools indicated they had unpaid school staff who supported the SFP. This work contributed an average of 0.2FTE per school. The top duties of these staff included: food preparation (73%; n=96/132); grocery shopping (65%; n=86/132); food ordering/purchasing (58%; n=76/132); serving food (57%; n=75/132); and cleaning up after meals (55%; n=73/132) (See Table 13 for full results).

Table 13: Contributions of Other School Staff to the School Food Program

Option	Respondents
Food Preparation	73%; n=96/132
Grocery shopping	65%; n=86/132
Food ordering/purchasing	58%; n=76/132
Serving/taking food to classrooms	57%; n=75/132
Cleaning up after meals	55%; n=73/132
Menu Planning	41%; n=54/132
Food budgeting	40%; n=53/132
Seeking funding	33%; n=44/132
Lunch Supervision	22%; n=29/132
Other (please specify)	11%; n=15/132
Total Responses: 601	

“We all volunteer our time to make sure our students have something in their belly, but it is time consuming and goes above and beyond the call of duty for our staff.”
[Rural school principal]

“The demographic of our school includes many students who have challenges with food insecurity outside of school, so our food budget is one of the largest budgets in our school. It is a huge priority in the building.”
[Rural school principal]

Overall School Food Program Satisfaction

Lastly, schools were asked to indicate their level of satisfaction for a series of SFP operational factors. The results are as follows:

- 85% (n=214/253) of schools were satisfied with the number of students the program was able to reach.
- 82% (n=208/253) of schools were satisfied with quality of meals/snacks served to students (i.e. freshness, variety, taste).
- 75% (n=191/253) of schools were satisfied with the ability for their menus to meet nutritional requirements as per Canada's Food Guide.
- 62% (n=156/253) of schools were satisfied with their SFP equipment and storage (i.e., stoves, coolers, shelving).
- 59% (n=150/253) of schools were satisfied with their SFP infrastructure (i.e. eating areas and food preparation spaces).
- 58% (n=148/253) of schools were satisfied with their ability to involve students in food preparation and serving.
- 57% (n=144/253) of schools were satisfied with their ability to connect the food program to curriculum and learning.
- 56% (n=142/253) of schools were satisfied with their ability to engage community partners in the SFP.
- 43% (n=109/253) of schools were satisfied with their SFP funding.
- 37% (n=94/253) of schools were satisfied with their ability to engage parents/caregivers in the SFP.
- 33% (n=83/253) of schools were satisfied with their ability to serve culturally appropriate and Indigenous foods.

“We are on the waitlist for several national support grant programs with no indication of when we might receive some funding support. Every year the food insecurity pressures on families and their impact on learning is immeasurably increasing. Students need their basic food needs met in good and accessible ways to be successful students.”
[Urban school cook]

“Our local grocery store donates apples and bananas each week. [A local NGO] brings pre-packed lunches for our most vulnerable families. We are so lucky to live in such a generous and supportive community. These programs wouldn't be available without the donations we receive from local businesses.”
[Rural teacher]

DISCUSSION & CONCLUSION

Investing in Sustainable and Fair Futures in Saskatchewan

Funding for SFPs comes from various sources, including provincial grants, school division budgets, school level grants, donations and fundraising. SK has the lowest per student provincial funding of SFPs in Canada at an estimated \$0.04/student/day.⁵ This dedicated provincial funding has been inadequate to support program operations, and many divisions draw from other areas of their budgets to enhance the quality and reach of their SFPs. At the school-level, schools rely heavily on grants for program operations, which is time consuming and fiscally unreliable. While schools are spending an estimated \$0.60/student/day, far outstripping funding provided by the province, this spending falls short of what is required to operate comprehensive and promising SFPs, as found across the country.⁹ SK schools require additional funding for SFPs, likely even beyond the recent \$15.8 million federal investment.¹⁵ This survey found limited funding for SFPs as a main area of program dissatisfaction and a primary barrier for starting a SFP. As the cost of living increases, supporting families through SFPs can be part of a multi-pronged approach in SK to support basic household needs and local economies.

As shown in this study, many schools are purchasing food from grocers in their local communities. What is unknown is the extent to which these grocers acquire foods that are produced and raised locally. The province can build from this established foundation by supporting grocers to stock locally and sustainably grown and raised SK products, or a “farm to fork” approach.¹⁶ Joint purchasing efforts with other schools or public facilities can support local food procurement networks, creating a market for business development through economies of scale. In British Columbia (B.C.), ongoing efforts to increase local food in public institutions such as hospitals, residential care facilities, and post-secondary institutions, have supported jobs for farmers, fishers, ranchers and food processors, and created a two-fold impact for every dollar spent in B.C.’s economy.¹⁷ In SK, an investment into a province-wide universal SFP that includes 30% local food purchasing is estimated to add 2,200 jobs and \$142.5 million dollars to the province’s GDP.¹⁵

Beyond community economic development, a “farm to fork” approach can support student learning and literacy. This study shows that few schools felt that food preparation activities were integrated with student learning, and majority of schools never used food produced on school grounds. Students can be involved in planning menus, preparing, serving, and composting food grown, raised and fished from their local areas, and

experiential learning connections can be made with classroom science, history, math, and environmental curricula. When children understand how food is connected to the wider environment, it helps with the development of food skills, and greater acceptance and intake of a variety of nutritious foods over time.¹⁸⁻²⁰ Through investment into SFPs that prioritize and connect learning and land, SFPs can be environmentally sustainable and educational while enhancing local cultures and ecologies of urban, rural and northern regions.

Funding School Food Programs through Pay-What-You-Can Models

Although the survey found that pay-what-you-can (PWYC) programs were uncommon in SK, they may be a useful model for SFP financial sustainability. Province-wide, universal programs exist in Newfoundland and Labrador, New Brunswick, Nova Scotia, and Prince Edward Island, funded through provincial, federal, and charitable support, as well as through PWYC models.⁹ PWYC programs work through an open payment system where families determine how much they want to pay for a school meal, ensuring cost does not deter participation. Payments are made anonymously, often on a web-based platform, to ensure there is no stigma when families require a lower cost meal. Evidence in the context of universal programming indicates most families are willing to pay between 2.00-5.00\$/child for a SFP^{21,22} and in Prince Edward Island, 20% of program expenses are recovered from parental payment.⁹ However, the success of PWYC models may be context sensitive^{23,24} and testing of these models in SK is required. As the survey demonstrated, lunch was the most common meal students paid for in SK; introducing PWYC lunch meals, while continuing to provide universal, cost-free snack and breakfast programs, may be a feasible next step in SK to evaluate this increasingly common model, while supporting program financial sustainability.

Building Connections and Belonging

Food, as a basic need that provides much more than sustenance, is an integral part of creating warm and welcoming school environments^{25,26} and supporting the food cultures of children and youth.^{27,28} Unfortunately, majority of schools in the survey indicated they could not provide Indigenous or cultural food options, and this was also the area of greatest program dissatisfaction. The lack of culturally diverse food options and practices is in stark comparison to the cultural diversity of the province, with Indigenous peoples constituting 17.0% of the total population (and about half living off-reserve),²⁹ and to emphasis on inclusivity, respect, and success of Indigenous students in school.^{30,31} Thirteen percent of the SK population further identifies as immigrants.³² Prioritizing and developing distinction-based and culturally appropriate SFPs, as set out in the requirements of the National SFP,⁴ will require greater emphasis on embedding SFPs in broader school cultures focused on Reconciliation, belonging, inclusivity and diversity. It

will also require building and strengthening community and Indigenous partnerships, and sharing food skills and knowledge to procure, prepare, serve, and celebrate diverse foodways.

Recognizing and Supporting the School Food Workforce

The SFP workforce in SK needs critical attention. Sixty-nine percent of schools had no paid school cooks; the majority of SFP labor, such as food preparation and grocery shopping, was undertaken by educational staff. When schools had school cook positions, they tended to be part-time. Further research into understanding and building the SFP labor market in SK is greatly needed. In addition, given that 92% of the global school food workforce is female,¹⁰ understanding and elevating school food workplace policies that are sensitive to the lived experiences of women, including who are ethnically diverse, is of critical importance to the success of SFPs.

Training was also limited for school cooks, representing a gap in program services and a likely barrier to meeting provincial and national SFP objectives.²⁶ Similar to programs in the U.S., school cook training can extend beyond food safety to embrace food systems competencies, such as sustainability, food cultures, partnership development, kitchen management, and quantity food production to make school food fresh, healthy, and sustainable.^{26,33} Establishing and offering school cook training programs informed by current workers will help build confidence and capacity in the school food workforce and ensure basic competencies for those newly entering the school cook position.

In addition to training programs, providing opportunities for more experienced school cooks to mentor less experienced or new staff can support workers and create stronger connections between schools. Further, as demonstrated in provinces such as Nova Scotia and Manitoba,⁹ funding a SFP resource hub can reduce duplication and strengthen knowledge sharing with one place to go for SFP resources, information and support.

Ensuring Universal Student Participation

Universal SFPs, where meals and snacks are offered for free to students regardless of their household income, was the most common type of SFP in SK schools. However, follow up interviews with SK school board administrators indicated that while it was common for programs to be open to all students (universal access³⁴), expectations of program use and funding was based on “need” or for “emergency use”, meaning students did not universally participate.¹⁴ While it is not likely or expected that 100% of students will participate in universal SFPs, other SK-based research has found participation rates of 77% in universal lunch programs.²¹ Research shows that increasing universal participation requires removing stigma promoting factors, like having students eat school-provided food in separate spaces, and facilitating program use through factors like staff role

modeling, posting menus, and adapting meals for cultural and medical needs.^{26,35} Expanding SFPs for universal participation is required in SK.

Supporting Student Nutrition and Wellbeing

The impacts of SFPs were well described in this study and included better concentration and learning, improved student mood, and increased intake of nutritious foods. These findings are an important reminder of the multi-faceted impacts of SFPs. Often seen as a nutrition intervention,³⁶ the contributions of SFPs extend holistically to benefit emotional and mental health. Other studies have demonstrated the social support SFP provides to students, including an increased sense of belonging and friendships at school.^{25,37}

Supporting childhood and youth mental health is an increasingly important priority in SK³⁰ and across Canada³⁸; understanding the role of SFPs toward mental health promotion and using SFPs to bridge policy goals across Education and Health sectors are natural next steps for SFP policy and programming.

Majority of schools in this study offered three meals, breakfast, lunch and snack, every school day. This is a recommended practice given the nutritional benefits of school meals,³⁹ as well as psycho-social benefits of meal certainty and routine for children and youth.⁴⁰ However, schools can work towards improved nutrition in their SFPs as the survey found high levels of food processing, an indication of low nutritional quality.⁴¹ Without increased and stable funding, as well as ongoing education and reinforcement, it is difficult for schools to align with nutrition and food guidelines.^{14,42} Future collaboration and evaluation with researchers, public health professionals, dietitians and food service managers is recommended to ensure SFP meals and snacks align with provincial and national nutrition and food standards.

Securing Food Equipment and Storage

With current scale of programming, many schools indicated a moderate need for additional food storage and cooking equipment (i.e. refrigerators, freezers, stoves, shelving). These needs will increase as schools enhance programs and/or adapt menus to meet policy objectives as outlined in the National SFP, such as ensuring culturally appropriate and environmentally sustainable programming.² The survey also found a lack of commercial/industrial kitchens in SK schools which will require planning and creative solutions, such as outfitting newly built schools with commercial kitchens and working to share infrastructure across schools as SFPs expand. For example, a school can act as a hub to prepare food which is distributed to schools with limited equipment and/or school cooks.⁴³ The drawbacks of this model may include limited ability to involve students in food preparation, lack of flexibility for school specific menus, as well as long distances between schools, particularly in rural divisions, that may affect food quality and student engagement.^{14,44,45} When schools do not have appropriate spaces for food preparation

and storage, the type of food that can be offered is limited, including serving processed foods more often, and food safety risks are increased. Strategically investing in SFPs requires supportive infrastructure and equipment for success.

Strengths and Limitations

The survey measured SFP reach (71%) and participation (54%) at higher levels than previous estimates where less than half of SK schools offered a SFP⁴⁶ reaching about a quarter of students.⁴⁷ Given this survey was conducted at the school level, it may portray greater accuracy than research conducted at the divisional or school board level. In addition, while other research has identified SFPs as being mainly free or low-cost for students,³⁴ this survey included programs that were free, subsidized or fully paid by families and students, which likely increased the estimated participation rates. Moving forward, in addition to remaining at the school-level, data should be gathered across remote, rural and urban divisions to understand access and participation across geographic and cultural spaces.

Survey participation was far reaching. In total, 16 out of 27 SK school divisions were included and survey respondents were distributed across rural, northern and urban areas of the province. The survey response rate was also high at 83%. However, social desirability may have overestimated positive program attributes and satisfaction given school board administrators (i.e. Directors and Superintendents) distributed the survey to schools in their division. To account for a full school year, participants were also asked to recall SFP operations over the past year (2023-2024), which may have also affected the accuracy of results. Overall, the survey was administered prior to the implementation of National School Food Program funding in SK and results may assist in understanding the impacts of federal, and other funding sources, in the future.

Conclusion

This study is a novel, in-depth look at SFPs in SK. Understanding the current landscape of SFP operations and access within SK is a needed step towards enhanced funding, improved resource distribution, and continuous improvement. This study can be replicated across Canada to build evidence for SFPs and enhance comparability between regions with a common purpose of improved health, learning, and overall wellbeing for Canadian children and youth.

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