WORKING PAPER

School Meals Case Study: **Canada**

Prepared by the Research Consortium for School Health and Nutrition, an initiative of the School Meals Coalition

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Country Profile

Population and economics

Table 1: Key data on population and economic indicators

Total population (2022)[1]	Total number of population aged 5 to 19[2]	Total number of population employed in agriculture sector[3]	Gross Domestic Product (GDP) per capita (2021)[4]
38,929,902	6,314,449 (16.2 %)	245,200 (6.4%)	$52,015 USD

Sources: 1 Statistics Canada (2022d); 2 ibid; 3 Statistics Canada (2022b); 4 International Monetary Fund (2022).

Education

Compulsory education begins in primary school at age 6 and lasts 10 years (6-15 years of age) (UNESCO, 2022). Elementary and secondary schooling in Canada is divided into public schools, private (independent) schools, and home-schooling. All three school types provide 'regular programs' for youth. Public and private schools also offer general programs and vocational programs for youth and adults. Over 90% of children in Canada attend public schools (Statistics Canada, 2021d).

Table 2: Structure of school education and number in each education level age group

Education level	Age	Number of children (2020)
Pre-primary	3-5 years	1,189,406
Elementary	6-11 years	2,377,187
Secondary	12-17 years	2,354,004
Tertiary	18-22 years	2,231,891

Source: UNESCO (2022).

Table 3: Percentage of Children in School

Education level	Net Enrollment rate % (2020)			Gross enrollment ratio % (2020)		
	Total	Females	Males	Total	Females	Males
Pre-primary	- - -			48.9	48.6	49.3
Elementary	99.7			101.85	101.51	102.2
Secondary	99	99	99.1	114.87	115.51	114.25
Tertiary	79.5	91	68.6			

Source: UNICEF Canada (2020).

Table: 4 School Type and Program Type

School Type	Program Type	Children (2019-2020)	% of children enrolled
TOTAL - all school types, combined	Total, program type	5,725,431	NA
	Regular programs for youth	5,438,763	
	General programs for adults	167,364	
	Vocational programs for youth and adults	119,304	
Public school programs	Total, program type	5,254,992	91.80
	Regular programs for youth	4,975,797	
	General programs for adults	167,226	
	Vocational programs for youth and adults	111,969	
Private and Independent Schools	Total, program type	433,152	7.60
	Regular programs for youth	425,679	
	General programs for adults	138	
	Vocational programs for youth and adults	7,335	
Home-schooling	Total, program type	37,287	0.70
	Regular programs for youth	37,287	
	General programs for adults	0	
Sources: Statistics Canada (2021c); Statistics Canada (2021d).			

Food security, nutrition and health

- **Stunting**

No Canada-specific data available

- **Obesity**

- Prevalence of overweight in children (under 5 years) is 11.8% (2020).
- Overweight and obesity (combined) in children from 5-17 years was 30% in 2017 (Government of Canada, 2018).
- Overall population (18 years +) 36.3% were overweight and obesity reached 26.8% in 2018 (Government of Canada, 2019a).

- **Micronutrient deficiency**

No Canada-specific data available

- **Food insecurity**

Data for food insecurity in Canada is provided by two surveys. Statistics Canada's Canadian Income Survey (CIS), which surveys the 10 provinces, found that 15.9% of households were food-insecure in 2021. Of the 5.8 million Canadians included, 1.4 million are children under

18 years of age, living in households that experienced some level of food insecurity (Tarasuk et al., 2022).
People living in 'very remote areas' regardless of age, experience food insecurity more often compared to those living in all other areas. The proportion of food insecurity for people living in very remote areas is:

- 2.7 times higher for youth
- 4.3 times higher for adults
- 5.1 times higher for older adults (Public Health Agency of Canada, 2022b).

Youth (12-17 years) experience food insecurity at differing rates related to living arrangement. The prevalence of household food insecurity is:

- 2.8 times higher for youth living with a single parent, compared to youth living with both parents.
- 3.0 times higher for single parents living with children, compared to couples without children (Public Health Agency of Canada, 2022a).

The proportion of Indigenous people[1] experiencing food insecurity is higher compared to non-Indigenous. For youth (12-17 years) the prevalence is 25.8% among First Nations living off reserve, 25.6% for Métis, and 56.7% in Inuit communities (Public Health Agency of Canada, 2022a).
The Prevalence of undernourishment in total was less than 2.5% in 2019-21 (FAO, IFAD, UNICEF, WFP and WHO, 2022).

- **Thinness in children from 5 to 19 years**

In 2019, prevalence of thinness is estimated to be 0.4% in girls and 0.8% in boys (Global Nutrition Report, 2023).

Design and implementation of school meal programmes

Description

School Food Programs (SFPs) in Canada provide an example of how a country without a national school food policy/strategy and program endeavours to nourish students. Globally, Canada ranks 30th out of 38 of the wealthiest nations on child well-being for providing children with access to nutritious food (UNICEF, 2020). Nationally, the diet quality of students across the socio-economic spectrum is poor, with only a small proportion meeting the recommendations of Canada's Food Guide (Black & Billette, 2013; Everitt et al., 2020; Minaker & Hammond, 2016; Tugault-Lafleur et al., 2017; Tugault-Lafleur et al., 2018; Slater et. al 2022). Canada is the only G7 country (Bas, 2019) and one of the only industrialized member countries of the Organization for Economic Cooperation and Development (OECD) (Koc & Bas, 2012) without a nationally-funded and harmonized school food program or policy. Instead, municipal and provincial/territorial (P/T) governments, a few federal government departments/agencies, and non-governmental organizations (NGOs) at all levels support an

[1] Indigenous peoples and Aboriginal peoples are collective terms used in Canada for the original peoples of North America and their descendants. The Canadian Constitution recognizes 3 groups of Aboriginal peoples: First Nations, Inuit and Métis (Crown Indigenous Relations and Northern Affairs, 2009).

inconsistent patchwork of programs across Canada (Godin et al., 2017; Haines & Ruetz, 2020; Ruetz & McKenna, 2021).

Without a federal school food program for Canada, a grassroots movement of SFPs has developed innovative programs to fill a significant gap. While the majority of students bring a packed lunch, free breakfast and snack programs, and lunch programs, have expanded in recent years. This is encouraging as home packed school lunches have been found to be low in nutritional quality, compared to school-provided meals (Everitt et al., 2020). In 2018/19, at least 1 million or ⅛ of students participated in a SFP in Canada (an underestimation due to no or limited data in some jurisdictions), but participation rates within provinces and territories varied widely resulting in inequitable access (Ruetz & McKenna, 2021). The Canadian case is a testament to the leadership and perseverance of (mainly) women, past and present, who recognize the many benefits of universal access to healthy school food and have volunteered countless hours to prepare school meals for students.

The current school food program (SFP) landscape is complex and dynamic – with varied mandates, types of programs, multiple and overlapping sources of funding, and limited program coordination, monitoring, and evaluation (Ruetz & McKenna, 2021). Canada's political governing system is one of federalism, in which government responsibilities are divided between federal and provincial legislation. Indigenous Nations also have self-government and Treaty Rights. Given the multiple and shifting layers of governance in Canada, coordinating SFPs across the country is challenging.

SFPs fall under the responsibility of a number of P/T ministries within P/T governments who fund non-governmental charitable organizations to help coordinate SFPs. The majority of P/T governments partner with one or more NGOs to deliver meal programs that rely heavily on NGO staff and volunteers. Within P/T governments, SFPs are most commonly funded by Ministries of Education (n=8; 50%), followed by Ministries of Health (n=7; 43.7%), Ministries of Social Services (n=3; 18.7%), and Indigenous Affairs (n=1; 6.3%). In four P/Ts, funding responsibilities are distributed among more than one department, either supporting the same program or different programs, with varying degrees of collaboration among departments/ministries and NGO partners. As of 2020, every province and territory has started funding SFPs, albeit the amount of funds varies.

This case study summarizes key characteristics of SFPs in Canada, highlights important historical developments, summarizes ongoing challenges, provides recommendations, and highlights future aspirations.

Objectives

Primary program objectives tend to be similar across Canadian provinces and territories, with addressing food security, followed by health, being the most common. Broader food systems indicators, such as local food/economic development and environmental outcomes were rarely identified (Ruetz & McKenna, 2021).

School food program development in high-income countries has progressed in three phases, as described by Oostindjer et al. (2017). When comparing SFPs in Canada to Oostindjer et al.'s (2017) evolutionary continuum, SFPs in Canada are currently at the beginning of the third phase - largely addressing student hunger and health - with a few programs incorporating some environmental sustainability and local food/economic development elements (Everitt et al., 2020; Ruetz & McKenna, 2021). A brief summary of school food programs (SFPs) in Canada, as shown in Table 6, reveals program aspects that differ from many countries.

Table 6: Key Characteristics of SFPs funded by Provinces and Territories in Canada

SFPs' Primary Objective	Food Security/Social Safety Net (n=6; 37.5%) Nutrition/Health Goals (n=4; 25%) Education/Academic Performance (n=3; 18.8%) Other/Combination (n=3; 18.8%)
Program Types	Breakfast/mid-morning meal is the most common type of program. SFPs are heavily volunteer-driven.
P/T Government Ministries/Departments Funding SFPs	Education (n=8; 50%) Health (n=7; 43.7%) Social Services (n=3; 18.7%) Indigenous and Northern Relations (n=1; 6.3%)
Schools Offering SFPs	>35% of Canadian JK-12 public schools offer one or more SFPs (based on limited data in some jurisdictions).
Student Participation Rates	There is inequitable access to SFPs to Canada. While over 1 million or ⅕ of JK-12 students in Canada participated in a SFP in 2018/19 (an underestimation due to no or limited data in some jurisdictions), participation rates within provinces and territories varies widely and is limited by insufficient funding.
Funding	Collectively, P/T governments contribute a minimum of $93,061,434 to SFPs.
Funding per participating student per school day	Provincial and territorial government funding for SFPs often only covers 25% or less of the cost, equating to an average of $0.48 per student per school day. For example, in 2018/19 this ranged from $0.10 to $3.45 per student per school day.
SFP Support and Accountability	All provinces and territories adopted nutrition policies/guidelines and all developed program manual(s).
Monitoring	P/T level data are available for 7 provinces and 3 territories.
Demand	Program/student demand often outstrips (funding) supply.
Source: Ruetz & McKenna (2021). Data pertains to the 2018/19 school year.	

Targeting and coverage

Approximately 1 to 2 million school-aged children (20-40%) participate in a free SFP of some kind, through a patchwork of programs across Canada's 10 provinces and 3 territories. Another 3-4 million (60-80%) school aged children do not have access to a SFP. In 2018/19, at least 1 million or ⅕ of students participated in a SFP in Canada (an underestimation due to no or limited data in some jurisdictions), but participation rates within provinces and territories varied widely resulting in inequitable access (Ruetz & McKenna, 2021). See *Figure 1: School Food Program Reach in Canada*, on the next page for details (Arrell Food Institute, 2021).
Likewise, although approximately 1/3 of Canadian schools offer one or more programs, availability varies widely by P/T. Many SFPs are not available to, or used by, all students. Even where meal programs are available, program demand exceeds supply, and program monitoring is inconsistent (Ruetz & McKenna, 2021).

Meal type

SFPs take the form of snack, breakfast, and/or lunch programs in elementary (Grades K-8) and secondary schools (Grades 9-12). Breakfast is the most common program given the history of large charity funders to preferentially fund breakfast (Coalition for Healthy School Food, 2018a; Ruetz & McKenna, 2021).

'Farm-to-school' is another approach to SFPs in Canada; a model that aims to connect schools to local food producers to increase students' consumption and understanding of locally-sourced food. The charity Farm to Cafeteria Canada provides grants to schools to start salad bar lunch programs in a number of provinces as a part of their programming (Farm to Cafeteria Canada, 2022b). This 'farm-to-school' approach has increased in recent years but remains constrained due to food procurement and other challenges, including insufficient infrastructure (Ruetz, 2022) and a disconnect in the capacity and logistics of the local agri-food system that is currently focused on supplying private markets, exports and retail.

Infrastructure remains to be one of the biggest challenges for school food programming. Most elementary and often secondary schools in Canada do not have school food infrastructure to grow, handle or prepare meals on site, such as kitchens and vegetable gardens. Additionally, most teachers are not trained food literacy educators (e.g., can lead cooking and gardening lessons), making it difficult to support healthy eating in an integrated and comprehensive manner (Haines & Ruetz, 2020).

A number of First Nations, Inuit and Métis schools have demonstrated leadership in SFPs, with communities engaging in a variety of food-based activities that support children's access to healthy and culturally appropriate food. The Yukon First Nation Education Directorate, for example, provides school meal and snack programs across the Territory, funded by Jordan's Principle.[2] Many other Indigenous communities engage in holistic school food program activities that support children's health and well-being, education, and understanding of culture and tradition. Examples include land-based activities and learning from Elders about how to harvest, process and prepare traditional foods, and working with traditional food providers.

Nutritional norms

While all P/Ts reported using nutrition guidelines and a program manual, there is a lack of standardized monitoring within and across jurisdictions.

Food procurement

Canada's patchwork of SFPs means schools adopt different food procurement strategies. The majority of SFPs rely on volunteers to shop for food at their local grocery store. Local and regional procurement mechanisms are increasingly being established, some owned and operated by school boards while others managed by NGOs, and for-profit school food delivery systems are also emerging in pockets of the country.

[2] Jordan's Principle ensures that First Nations children in Canada can access needed supports, services and products. It is named in memory of Jordan River Anderson, a young boy from Norway House Cree Nation in Manitoba. It was created in 2016, after the Canadian Human Rights Tribunal found the Government of Canada to have a discriminatory approach to services for First Nations children (Government of Canada: Indigenous Services Canada, 2022).

Food may be prepared on-site (in school kitchens) or off-site in centralized kitchens or private facilities (caterers). Some whole foods are purchased directly from farmers and wholesalers while other foods are purchased in processed form.

Legal framework and policy evaluation

Canada does not yet have a legal framework or national school food policy; however, the release of a National School Food Policy is expected sometime in 2023. In April 2022, the Government of Canada's intention to develop a National School Food Policy was mentioned for the first time in a federal budget: "Over the next year, the Minister of Agriculture and Agri-Food & the Minister of Families, Children and Social Development will work with provinces, territories, municipalities, Indigenous partners, & stakeholders to develop a National School Food Policy and to explore how more Canadian children can receive nutritious food at school" (Government of Canada, 2022). For a detail timeline of the school food program development in Canada, see Ruetz (2023).

Costs, benefits and budgeting

All P/T governments fund SFPs, although the extent to which they cover program costs varies (e.g., 15% in Ontario and 25% in Nova Scotia), as does the amount of funding provided per student. The total funding provided by P/T governments for SFPs is at least $93 million Canadian dollars annually (Ruetz & McKenna, 2021), and this amount is increasing. For example, in 2022, Manitoba, British Columbia, Québec, and Newfoundland and Labrador announced increases to their annual funding for SFPs. Manitoba more than doubled its annual funding from $1.23 million to $2.5 million (Manitoba Government, 2022); BC added $63.8 million to a joint fund for school food and other programming in 2022 (BC Gov News, 2022) and another $214 million over 3 years in 2023 (BC Gov News, 2023); and Quebec increased funding by $5.3 million, bringing its total to a $48 million contribution (Radio-Canada, 2022). In September 2022, New Brunswick announced it would move beyond the pilot program started in 2020 to give up to $550,000 to a provincial NGO to support SFPs for vulnerable students (Government of New Brunswick, 2022).

The majority of P/T governments require schools to submit annual grant applications to receive government funding, prioritize funding based on socio-economic need, and most also require programs to remain universally accessible to all children. It is rare for P/T governments to allow funding to be used towards food preparation and staff salaries; therefore, SFP staffing is largely volunteer-based, including caregivers and teachers volunteering their time. Unfortunately, most P/T government funding does not support the integration of food literacy education. Food literacy education represents a holistic way of viewing the food system that promotes critical thinking about food systems and food consumption (Benn, 2014; Renwick & Powell, 2019; Slater, 2017). Food literacy encompasses more than possessing specific skills and knowledge related to food; it also includes an active element where individuals are empowered to take action in addressing environmental and social injustices in the food system (Alkon, 2017; Gallegos, 2016; Renwick & Smith, 2020). Despite its importance, fewer than half of the P/T government funders permitted schools to fund food literacy activities, supplies, or equipment, requiring schools to seek funds elsewhere.

This inflexible and prescribed funding approach makes it very difficult for SFP practitioners to leverage a timely and sufficient response to student needs and critical program requirements, impacting program growth towards comprehensiveness.

In most instances, public funding for SFPs is insufficient - an average of $0.48 per participating student per school day. Accordingly, schools commonly receive funds from multiple sources, but it was not possible to tally these contributions at the national scale. Even with a variety of funding sources a significant number of P/Ts indicate that demand for programs is greater than available resources (Ruetz & McKenna, 2021). Program/student demand often outstrips (funding) supply. Five provinces and one territory (Newfoundland & Labrador, Nova Scotia, Ontario, Manitoba, Saskatchewan, and the Northwest Territories) reported there were inadequate levels of funding to meet the demand for existing programs, and three provinces (Saskatchewan, Manitoba, and Nova Scotia) reported there were insufficient levels of funding to establish new programs.

While rare, the federal government provides a very small amount of funding for SFPs. For example, the Public Health Agency of Canada funded farm-to-school programs from 2017-2022 via Farm to Cafeteria Canada (an NGO) (Farm to Cafeteria Canada, 2017). This funding was a significant and symbolically important development as it constituted the first federal, multi-sectoral investment in a nationwide SFP (Ruetz, 2022).

Monitoring and evaluation

While P/T governments collect some data on the SFPs they fund, monitoring of SFPs in Canada is inconsistent and monitoring practices vary across the country (Ruetz & McKenna, 2021). Obtaining comparable data on SFPs remains a challenge as province-wide data are not available in some jurisdictions (Ruetz & McKenna, 2021).

There is no national school food monitoring system (e.g., lack of common indicators across jurisdictions, consistent monitoring protocols, and repository for data) and not all P/Ts that fund programs compile funding, school, or student data.

Lessons learned and best practices

- 2019 was the first year the Government of Canada committed to creating a national school food program in a Federal Budget, although no funds were attached. Provinces and territories have continued to increase their funding support to programs. For example, in British Columbia's 2023 Budget they committed to investing $214 million over three years to expand existing school food programs and increase capacity to address student hunger in all districts (BC Gov News, 2023).
- The evolving Food Policy for Canada could provide an overarching framework for a national school food policy and national school nutritious meal program. A national school nutritious meal program could help deliver on the Food Policy's commitments to "help Canadian communities access healthy food" through "community-based initiatives (that) will invest in projects that increase access to food, with the potential to provide social, health, environmental, and economic benefits in support of vibrant communities across Canada" (Government of Canada, 2019, page 9). More specifically, the program could deliver on the Government of Canada's 2019 Budget Commitment to "engage with provinces, territories, and key stakeholder groups to work toward the creation of a National School Food Program" (Government of Canada, 2019, page 9) and contribute to the broader process of Truth and Reconciliation calls to action through Indigenous led SFP in respective P/Ts.

- The School Food Working Group of the Canadian Association for Food Studies and the Coalition for Healthy School food have created recommendations for a National School Food Policy (see Appendix 1 and 2).

Challenges

- There is inequitable access to SFPs to Canada. Provincial and territorial funding for SFPs often only covers 25% or less of the cost, equating to an average of $0.48 per student per school day (Ruetz & McKenna, 2021). This low level of investment makes it challenging for SFPs to adequately support the nutritional needs of children, limits programs' ability to develop food literacy skills, and makes it difficult to prioritize sustainable food system strategies. In addition, the nutritional quality of the food available is out of the control of school administrators and school staff when the foods are acquired through donations (Everitt et al., 2022b).
- Reliance on volunteer labour to purchase, prepare, and serve food and sometimes deliver auxiliary program components poses significant challenges to sustaining SFPs (Ismail et al., 2022a; Ismail et al., 2022b; Ruetz & McKenna, 2021). Currently, most Canadian school systems lack the funding and infrastructure to support healthy eating in an integrated and comprehensive manner (Haines & Ruetz, 2020). In addition, while many jurisdictions have nutrition guidelines, adequate resources are required to promote policy adherence and compliance (McIsaac et al, 2019).
- There are several challenges in collecting data to optimize school food program effectiveness. For example, several government ministries and non-governmental/charitable organizations are involved with program delivery making it difficult to standardize data collection processes (Ruetz & McKenna, 2021). The Coalition for Healthy School Food also recommends that SFPs be adapted to suit the school context and be under Indigenous control in Indigenous communities (Coalition for Healthy School Food, 2018a; Coalition for Healthy School Food, 2022). This adds an extra challenge in standardizing indicators, but also an opportunity in ensuring programs meet the needs of the diversity of communities across Canada. In addition, SFPs could address a wide breadth of issues such as social determinants of health, systems and sustainability, and economic sustainability, and there is little agreement on the best way of measuring each of these components (Everitt et al., 2022b; Everitt et al., 2022c). Monitoring is also a challenge due to lack of (or inconsistent) data and the low priority given to school food within the education system (Ruetz & McKenna, 2021).

Related resources

5th Annual Arrell Food Summit. (2022, June 13). Canadian Food Policy Advisory Council Co-Chairs discuss a National School Food Program | June 7 2022. *Arrell Food Institute*. https://www.youtube.com/watch?v=Xi8wCbXk04Y

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Appendices

Appendix 1. Recommendations from Members of Canadian Association for Food Studies' School Food Working Group

A series of recommendations have been informed by Canadian school food research by the members of the members of the Canadian Association for Food Studies' School Food Working Group who authored this report:

Centering Students: Black et al. (2022) suggest that to transcend current deadlocks around designing a future national SFP, Canadian policy makers must actively centre the voices and needs of children and pursue comprehensive notions of wellbeing and justice at the heart of school food programming. To date, student perceptions of SFPs have largely been under-examined; including them in the design of SFP for Canada is essential (Black et al., 2022; Ismail et al., 2022). Attention to children's experiences and perceptions about SFPs is vital to creating spaces for healthy relationships with food, peers, and school staff, and reducing health and social inequalities (Black et al., 2022a; Colley et al., 2021).

Food Literacy: Food literacy has been noted as a vital part of SFPs (Hernandez et al., 2019). Given supportive environments, food literacy education can provide tools and knowledge for children and youth to make informed food choices for positive health outcomes (LeBlanc, Ward, LeBlanc, 2022; McEachern et al., 2022; Everitt et al., 2020; Woodruff et al., 2020) and environmental sustainability (Martin & Massicotte, 2021; Parker & Koeppel, 2020). Moreover, given that SFPs are administered in schools, this poses a very important, albeit under-examined, opportunity to integrate food literacy education with SFPs (Martin & Ruetz, 2021; Powell & Wittman, 2018). Family food consumption can also be influenced by children's food literacy and knowledge that is gained in school (Reagan et al., 2022). Integrated food education should be implemented across school curricula for optimum impact (LeBlanc, Ward, LeBlanc, 2022; Parker & Koeppel, 2020; Slater, 2022). Furthermore, a multi-dimensional (i.e., health and well-being, environment, and sustainability) conceptual framework for food literacy that also considers different ways of knowing, knowledge/literacy types (i.e., Indigenous knowledge, theoretical knowledge, hands-on skills, and critical literacy) has been proposed as a way to comprehensively test and improve existing food literacy curricula and programs (Martin and Massicotte, 2021).

Integrated, multi-component programs: Research has identified the need for integrated SFPs that address issues such as the social determinants of health, food systems and environmental sustainability, climate change, and local economic development (Dacunha et al., 2022; Everitt et al., 2020; Everitt et al., 2022b; Haines & Ruetz, 2020; Parker & Koeppel, 2020; Ruetz & McKenna, 2021; Black et al., 2022b; McIsaac et al., 2018). Universal SFPs have not only demonstrated numerous impacts on students, but also their communities, by supporting local economies, food systems, and fostering volunteerism (Ismail et al., 2022b). While not common in Canada (Colley et al., 2019; Ruetz & McKenna, 2021), promising results of centralized food procurement SFPs (one organization is responsible for the food purchasing and/or delivery) suggest food consistency and safety, greater purchasing power, more efficient administrative processes (Ismail et al., 2022b), and increased levels of local food procurement (Ruetz, 2022). SFPs can be a pathway of environmental and social sustainability with benefits to all involved.

Local Food: Supplying school children with a portion of locally-grown food through a National School Food Program would support local jobs in the agri-food sector, particularly in production,

transportation and preparation, providing meaningful and stable employment. A preliminary University of Guelph study (2019) found a national program could contribute $4.8 billion to the Canadian agri-food sector over a 10-year period if 30% was spent domestically, and stimulate as many as 207,700 jobs (Ruetz & Fraser, 2019). Such a program could assist in reaching Canada's target of an additional $30 billion in domestic agri-food sales by 2025 (Innovation, Science and Economic Development Canada, 2018).

Sustainability: Schools are well-positioned to incorporate sustainable food system strategies in curriculum, policies, and practice (Black et al., 2015 Rojas et al., 2017), and are a promising domain for food system transformation (Doyle, 2021). Multi-component programs that address social determinants of health, food systems and sustainability, and economic sustainability can support both growing children and the environment and contribute to preserving our future ability to produce food (Everitt et al, 2020). The curriculum, for instance, can demonstrate the connection between food, health, and the environment. Experiential learning strategies can address the impact of the conventional food system on greenhouse gas emissions and connect students with local producers to learn about ecosystems and food production methods (Rojas et al.2011). Sustainable food system policy support may include food policies that recommend minimally processed, locally sourced foods that have less packaging (Everitt, et al, 2022b). Practice initiatives include but are not limited to growing gardens and fruit trees, incorporating composting systems, and recycling programs, reducing waste, offering local foods, and focusing on plant-based menu items (Black, et al., 2015, Rojas, et al., 2011, Everitt et al. 2022a; McKenna, 2019).

Culturally Diverse and Appropriate Food: A national school food policy and program should reflect diverse food cultures children bring to school. As Seko et al. (2021) found, students from ethnocultural minority backgrounds sometimes face lunchbox shaming, a form of microaggression due to the food culture mismatch between school and home. Incorporating culturally appropriate food literacy education into elementary school curriculum would support an inclusive classroom. SFPs should consider that culture is not a static concept and that food cultures continue to evolve, including hybrid and fusion cuisines that recognize overlapping and evolving cultural boundaries. It is also crucial to stay mindful of the potential culinary acculturation through SFPs. In France and Japan, their national school meal programs work as an ideological instrument of the states to produce the 'gastro-citizens' who embody idealized culinary heritage (Moffat & Gendron, 2019). While these countries aim to foster healthy, well-nourished citizens through standardized school meal programs, limited dietary accommodations for religious or cultural reasons are available as those whose diets do not conform to dominant foodways are excluded. These challenges and tensions will be important for Canada to mindfully navigate.

Data and Evaluation: Statistics Canada and Health Canada should resume collecting dietary data related to lunch time food sources through the Canadian Community Health Survey (CCHS). The 2004 CCHS was the last time this data was collected which provided key insights into the Canadian school food landscape: 73% of children reported bringing lunch from home, 13% reported obtaining lunch from an off-campus location, 10% from schools, and 6% reported skipping lunch (Tugault-Lafleur et al., 2018). In addition, reliable evaluation methods to assess the dietary contributions of food and beverages consumed at school - both school-provided and packed meals - are needed (Tugault-Lafleur et al., 2016). Students who eat school meals have been found to have healthier diets (Everitt et al., 2020), though current SFP monitoring is inconsistent and additional data on diet quality and overall program impacts are necessary to contribute to planning and guidelines for SFPs and a National School Food Program (Ruetz & McKenna, 2021).

SFPs can be a pathway for implementing recommendations in Canada's Food Guide, which includes evidence-based nutrition standards. SFPs developed in collaboration with communities can also be a means of addressing some of the criticisms of the Food Guide, specifically those around relevance to culturally diverse and Indigenous populations (Dacunha et al., 2022; Black et al., 2022b).

Appendix 2. Recommendations from the (Canadian) Coalition for Healthy School Food

The Coalition for Healthy School Food (CHSF), first formed in 2014, is comprised of over 220 organizational members that have been advocating for a national school food program. This coalition has developed 8 guiding principles for SFPs in Canada (Coalition for Healthy School Food, 2018a; 2018c), urging that SFPs should be:

1. **Health promoting**: Serve tasty, nourishing and culturally appropriate foods to all children, focusing on vegetables and fruits. Ensure that programs are in line with the revised Canada's Food Guide, foster a healthy food environment, and promote mental health and wellbeing.
2. **Universal**: All children in a school can access SFPs in a non-stigmatizing manner.
3. **Cost-shared**: Use federal funding to both expand on current provincial, city, parental and community funding and to initiate new programs in a cost-shared model.
4. **Flexible and Locally Adapted**: SFPs that reflect the local context of the school and region and are connected to and informed by students and their parents or caregivers. Ensure that funding builds on existing programs, local knowledge, skills, and relationships and that it supports different food service models, from breakfast to lunch to snacks.
5. **Committed to Indigenous control over programs for Indigenous students**: Embed Indigenous Food Sovereignty in a School Food Program for Canada and negotiate funding for SFPs with First Nation, Métis, and Inuit leaders.
6. **A Driver of Community Economic Development**: Encourage SFPs to set local and sustainably produced food purchasing targets, which would create jobs for Canadian farmers and local food producers.
7. **Promote Food Literacy**: Support the conditions for SFPs to be integrated into the curriculum and enable food literacy and experiential food skills education.
8. **Supported by Guidance and Accountability Measures**: Build on provincial and territorial school food funding and policies to ensure that programs have strong public accountability measures in place and are guided by Canada-wide nutritional standards, conflict of interest safeguards that prevent programs from marketing unhealthy food and specific products, as well as a framework for consistent Canada-wide program evaluation.

In 2022, the Coalition for Healthy School Food developed recommendations to the federal government on how to deliver on the Government's commitments to develop a National School Food Policy and work toward a National School Nutritious Meal Program. As a key element of the Federal Government's evolving Food Policy for Canada, the CHSF recommended that the Government of Canada allocate $1 billion over five years in budget 2023 towards a national school nutritious meal program, providing an initial $200 million in 2023 (Coalition for Healthy School Food, 2022); however, the Government of Canada did not provide any funding in the 2023 Budget.

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