McMaster University | HEALTH FORUM

Rapid Evidence Profile #55

National and sub-national stewardship for improving healthy school communities and student health outcomes

23 August 2023

Appendix 1: Methodological details

We use a standard protocol for preparing rapid evidence profiles (REP) to ensure that our approach to identifying research evidence is as systematic and transparent as possible in the time we were given to prepare the profile.

Identifying research evidence

For this REP, we searched Health Evidence, Social Systems Evidence, PubMed and Eric for:
1) evidence syntheses
2) protocols for evidence syntheses that are underway.
3) single studies

We searched Health Evidence, Social Systems Evidence, PubMed and ERIC. Links provide access to the full search strategy. In Health Evidence, we used filters for "school" under setting and "policy and legislation" and "built environment" under intervention strategy. In Social Systems Evidence, we used the filter for "education" under programs and services. In PubMed and ERIC, we used an open search for "comprehensive school health".

We also completed a hand search of relevant evidence repositories including: the Education Endowment Foundation, What Works Clearinghouse and the Organization for Economic Cooperation and Development.

Each source for these documents is assigned to one team member who conducts hand searches (when a source contains a smaller number of documents) or keyword searches to identify potentially relevant documents. A final inclusion assessment is performed both by the person who did the initial screening and the lead author of the rapid evidence profile, with disagreements resolved by consensus or with the input of a third reviewer on the team. The team uses a dedicated virtual channel to discuss and iteratively refine inclusion/exclusion criteria throughout the process, which provides a running list of considerations that all members can consult during the first stages of assessment.

During this process we include published, pre-print and grey literature. We do not exclude documents based on the language of a document. However, we are not able to extract key findings from documents that are written in languages other than Chinese, English, French or Spanish. We provide any documents that do not have content available in these languages in an appendix containing documents excluded at the final stages of reviewing. We excluded documents that did not directly address the research questions and the relevant organizing framework.

Assessing relevance and quality of evidence

We assess the relevance of each included evidence document as being of high, moderate or low relevance to the question.

Two reviewers independently appraised the quality of the guidelines we identified as being highly relevant using AGREE II. We used three domains in the tool (stakeholder involvement, rigour of development and editorial independence) and classified guidelines as high quality if they were scored as 60% or higher across each of these domains.

Two reviewers independently appraise the methodological quality of evidence syntheses that are deemed to be highly relevant. Disagreements are resolved by consensus with a third reviewer if needed. AMSTAR rates overall methodological quality on a scale of 0 to 11, where 11/11 represents an evidence synthesis of the highest quality. High-quality evidence syntheses are those with scores of eight or higher out of a possible 11, medium-quality evidence syntheses are those with scores between four and seven, and low-quality evidence syntheses are those with scores less than four. It is important to note that the AMSTAR tool was developed to assess evidence syntheses focused on clinical interventions, so not all criteria apply to those pertaining to health-system arrangements or to economic and social responses. Where the denominator is not 11, an aspect of the tool was considered not relevant by the raters. In comparing ratings, it is therefore important to keep both parts of the score (i.e., the numerator and denominator) in mind. For example, an evidence synthesis that scores 8/8 is generally of comparable quality to another scoring 11/11; both ratings are considered 'high scores.' A high score signals that readers of the evidence synthesis can have a high level of confidence in its findings. A low score, on the other hand, does not mean that the evidence synthesis should be discarded, merely that less confidence can be placed in its findings and that the evidence synthesis needs to be examined closely to identify its limitations. (Lewin S, Oxman AD, Lavis JN, Fretheim A. SUPPORT Tools for evidence-informed health Policymaking (STP): 8. Deciding how much confidence to place in a systematic review. *Health Research Policy and Systems* 2009; 7 (Suppl1):S8.

Preparing the profile

Each included document is hyperlinked to its original source to facilitate easy retrieval. For all included guidelines, evidence syntheses and single studies (when included), we prepare a small number of bullet points that provide a summary of the key findings, which are used to summarize key messages in the text. Protocols and titles/questions have their titles hyperlinked, given that findings are not yet available. For this profile, we only prepared bulleted summaries of key findings for documents deemed to be of high relevance. For those classified as medium or low relevance, we list the title with a link to the primary source for easy retrieval if needed. We then draft a summary that highlights the total number of different types of highly relevant documents identified (organized by document), as well as their key findings, date of last search (or date last updated or published), and methodological quality.

Identifying experiences from other countries and from Canadian provinces and territories

For each rapid-evidence profile, we collectively decide on what countries to examine based on the question posed. For this profile, we focused on 12 countries, including Canada, that are known by subject experts to be leaders in interventions and programs to support comprehensive school health. For each country, we search national government websites to identify any national-level support provided to comprehensive school health.

Appendix 2: Key findings from evidence syntheses, organized by document type, and sorted by relevance

Dimension of organizing framework	Declarative title and key findings	Relevance rating	Living status	Quality (AMSTAR)	Last year literature searched	Availability of GRADE profile	Equity considerations

• Type of support provided
  ○ Developing supportive policy
• For which components of Comprehensive School Health
  ○ Teaching and learning
  ○ Social and physical environment
  ○ Policy
• Health outcomes
  ○ Adopting healthy behaviours
	Effective strategies for reducing childhood obesity include comprehensive school health programs and modifications to physical education curricula, while there is limited evidence supporting universal school food programs and changes to school nutrition policies (5)
	• Comprehensive school health programs, use of multicomponent interventions, adjustments to physical education curriculum, and modifications to school nutrition policies were effective in reducing BMI and preventing childhood obesity.
		High	No	6/10	2020	N/A	None identified

• Type of support provided
  ○ Developing supportive policy
• For which components of Comprehensive School Health
  ○ Teaching and learning
  ○ Social and physical environment
  ○ Policy
• Health outcomes
  ○ Adopting healthy behaviours
	Alternative breakfast models and restrictions on competitive foods were found to be effective strategies in increasing student participation in school meals (3)
	• The review highlights the need for further research on the impact of existing policies on student participation in school meal programs
	• It mentions how school policies on unpaid meal debt can impact students from low-income families and how immigration policies can impact undocumented students
		High	No	10/10	2022	N/A	• Socioeconomic status

• Type of support provided
  ○ Developing supportive policy
• For which components of Comprehensive School Health
  ○ Teaching and learning
  ○ Social and physical environment
  ○ Policy
• Health outcomes
  ○ Adopting healthy behaviours
	Strategies such as nutrition standards, changes in food presentation/positioning, and provision of fruits and vegetables appear effective in promoting healthy food consumption and energy regulation among children (9)
	• Although changes in the school food environment show potential for improving healthy food consumption among students, their impact on obesity trends remains unclear, especially in varying income settings.
		High	No	8/10	2020	Yes	• Socioeconomic status

• Type of support provided	Utilizing comprehensive structures such as the WHO Health Promoting Schools (HPS)	High	No	11/11	2013	Yes	• Race/ ethnicity/

○ Championing comprehensive school health or equivalent frameworks ○ Supporting professional development • By which levels of government: not specified • For which components of Comprehensive School Health ○ Teaching and learning ○ Social and physical environment ○ Partnerships and Service • Implementation Outcomes ○ Adoption of comprehensive school health or equivalent frameworks: Health Promoting Schools Framework • Comprehensive school outcomes ○ Educational outcomes ▪ Academic achievement: test scores, retentions in grade ○ Student well-being ○ Reduced behavioural problems: suspension, attendance • Health outcomes ○ Improved health status ▪ Self-rated general health ○ Adopting healthy behaviours ▪ Physical activity ▪ Nutritional status ▪ Improved mental health	Framework can improve some health outcomes, such as health status (BMI) and adopting healthy behaviours such as physical activity and nutritional status (2) • However, due to limited data, it remains uncertain whether the implementation of the health promoting schools framework contributes to an improvement in students' academic performance.						culture/ language • Occupation: parental occupation • Gender/sex • Education: grade level, parental education • Socio economic status: household income, eligibility for free or reduced-price school meals, area indices of deprivation • Personal characteristics associated with discriminatio n (age)
• Type of support provided ○ Allocating resources, apart from funds • By which levels of government ○ Sub-national	Structural modifications at the sub-national level can improve physical activity in school and community settings (10) • This systematic review concluded that structural modifications to infrastructure at the sub-national level (e.g., schools, parks, and	High	No	5/10	2022	None	• Place of residence • Education

• For which components of Comprehensive School Health
  ○ Social and physical environment
• Health outcomes
  ○ Adopting healthy behaviours
  ▪ Physical activity
	public transportation) can moderately improve physical activity.
	• Examples of structural modifications included modifications to public transportation (e.g., designated bike paths), accessible green spaces, and alterations to school environments (e.g., increased space and ergonomic furniture).
	• Improvements to physical activity included decreased sedentary time at school and increased used of physical activity to commute (e.g., biking).						

• Type of support provided
  ○ Developing supportive policy
  ○ Championing comprehensive school health or equivalent framework
  ○ Supporting professional development
• Which level of government
  ○ National
  ○ Sub-national
• For which components of comprehensive school health
  ○ Social and physical environment
• Implementation outcomes
  ○ Adoption of comprehensive school health or equivalent framework
• Health outcomes
  ○ Adopting healthy behaviours
  ▪ Physical activity
	Policies at district and national level educational system aimed at regulating and prioritizing physical activity in educational environments are feasible and can improve physical activity in students. (6)
	• The purpose of this systematic review was to explore policies that may impact physical activity in school settings.
	• Policies and regulatory framework identified to improve physical activity in students included mandated physical education time, allocated time for physical movement, regular evaluation of physical education programs, and professional development for physical educators to promote activity within the institution.
	• The effectiveness of policies may vary in primary vs secondary school settings.
	• Other policies referred to extracurricular participation in school sports through either an intramural model (IM) or interscholastic level (IS).
	• The IM model was concluded to have better associations with physical activity, particularly for those from ethnic minority communities or form lower socioeconomic statuses.
	• However, gender differences were identified as more boys were found to participate in IM, than girls. Girls were reported to have increased participation when programs offered broader options.
		High	No	6/10	2020	None	• Race/ethnicity/culture/language
							• Gender/sex
							• Education
							• Socioeconomic status

	• Standardized evaluation of policies and strategies should be performed regularly to identify barriers and facilitators to implementation.						

• Type of support provided
  ○ Demonstrating commitment to comprehensive school health
  ○ Developing supportive policy
  ○ Championing comprehensive school health or equivalent framework
  ○ Funding initiatives
  ○ Collaborating and creating partnerships
  ○ Supporting professional development
• By which levels of government
  ○ National
  ○ Sub-national
• For which components of Comprehensive School Health
  ○ School and physical environment
• Health outcomes
  ○ Adopting healthy behaviours
  ▪ Nutritional status
	Government supports at the national and community level are important are needed to promote school-based nutrition in Indigenous students (4)
	• The purpose of this scoping review was to identify interventions aimed at promoting school-based nutrition in Indigenous students.
	• Direct school interventions included incorporating Indigenous pedagogy and knowledge regarding nutrition related to cultural practices in school curriculums. Additionally, providing professional development programs for teachers were shown to be helpful.
	• Additional interventions that were reported to be beneficial included media promotion (e.g., newsletter and posters), community events (e.g., cooking classes and community feasts), peer mentoring, and school food programs providing healthy options.
	• Outside of the classroom, funding initiatives, supportive policies, and community partnerships with elders and policies promoting school-based nutrition are needed.
		High	No	4/10	2019	None	• Race/ethnicity/culture/language
							• Social capital

Appendix 3: Key findings from single studies, organized by document type, and sorted by relevance

Dimension of organizing framework	Declarative title and key findings	Relevance rating	Study characteristics	Equity considerations

• Type of support provided
  ○ Championing comprehensive school health or equivalent frameworks (e.g., designating a role to promote/support/advance the implementation of comprehensive school health)
  ○ Allocating resources, apart from funds
• For which components of Comprehensive School Health
  ○ Teaching and learning
  ○ Social and physical environment
  ○ Partnerships and Service
  ○ Policy
• Implementation outcomes
  ○ Resources spent on comprehensive school health initiatives
	Core conditions for successful implementation of Comprehensive School Health initiatives in Alberta include "students as change agents, school-specific autonomy, demonstrated administrated leadership, dedicated champions to engage school staff, community support, research evidence, and professional development" (11)
	• The study focused on successful Comprehensive School Health initiatives within schools in Alberta from 2008 to 2013.
	• The authors found that contextual conditions such as time, funding, readiness, and community support influenced the extent to which the 'core conditions' were met.
		High	*Publication date:* 2016
			
			Jurisdiction studied: Canada (Alberta)
			
			Methods used: Secondary analysis of qualitative interview data
				Not reported

• By which levels of government
  ○ National
  ○ Sub-national (e.g., provincial, state)
• For which components of Comprehensive School Health
  ○ Social and physical environment
  ○ Policy
• Implementation outcomes
  ○ Adoption of comprehensive school health or equivalent frameworks
  ○ Feasibility of comprehensive school health initiatives
  ○ Sustainability of comprehensive school health initiatives
• Health outcomes
  ○ Adopting healthy behaviours
  ▪ Physical activity
  ▪ Nutritional status
	Practices for non-communicable disease (NCD) prevention in schools in Delhi, India, include lunch provided to students, planned physical activity, and educating students on the impacts of tobacco and alcohol (8)
	• The focus of this primary study was assessing the policies and practices in the schools of Delhi, India, aimed at preventing non-communicable diseases
	• These policies were implemented under the Comprehensive School Health Programme that is integrated in the education system and the national and state levels
	• This study also assessed the actual and perceived implementation of these policies.
	• Results showed that of the 19 schools studied (10 private and 9 government) both government and private schools had comprehensive health policies.
	• All government schools and most private schools offered a free midday meal to students in the primary levels; most schools had weekly physical education periods; and most schools had curriculum on the harmful impacts of tobacco and alcohol.
	• However, there was an observed discrepancy between the stated practices and the perceived implementation by students and parents.
		High	*Publication date:* 2019
			
			Jurisdiction studied: India
			
			Methods used: Observation checklist, self-administered questionnaire, survey
				Not reported

• Type of support provided
  ○ Demonstrating commitment to comprehensive school health
  ○ Developing supportive policy
  ○ Passing laws, bills or legislation
• By which levels of government
  ○ National
  ○ Sub-national
• For which components of Comprehensive School Health
  ○ Social and physical environment
  ○ Policy
	School districts were required to adhere to a federal mandate regarding the creation and implementation of wellness policies in public schools in response to growing obesity trend among children; however, only one district complied with all federal requirements, while others showcased limited comprehensiveness, weaker enforcement and incomplete adherence to the intent of the federal mandate (7)
	• The federal mandate did not address the implementation and evaluation of required wellness policies, leaving it to the discretion of local school districts as to how to implement and evaluate these policies.
	• No district received local, state, or federal funding for developing, implementing, or evaluating policies that could lead to the establishment of more broad-ranging policies.
	• To meet the federal mandate, district wellness policies were required to include specific physical activity and physical education guidelines. However, since the federal law does not require public schools to offer physical education, there is consequently lack of physical education programs.
	• Based on the findings, it is proposed that physical education requirements and monetary incentives be incorporated into federal and state policies.
		High	*Publication date: 2011*
			
			Jurisdiction studied: Minnesota, United States
			
			Methods used: Descriptive policy analysis using a convenience sample of school wellness policies in Minnesota. Policy statements from each district's policy were analyzed and compared to the coding system by Schwartz et al. (2009).
				None reported

• Type of support provided
  ○ Championing comprehensive school health or equivalent frameworks
  ○ Funding initiatives
  ○ Collaborating and creating partnerships horizontally (i.e., across ministries) and vertically (i.e., across different levels of government)
  ○ Supporting professional development
• By which levels of government
  ○ National
  ○ Sub-national (e.g., provincial, state)
• For which components of Comprehensive School Health
  ○ Partnerships and Service
  ○ Policy
• Implementation outcomes
  ○ Adoption of comprehensive school health or equivalent frameworks
• Sustainability of comprehensive school health initiatives
	Core conditions that promote the success of the Comprehensive School Health framework include students serving as change agents, and having school-specific autonomy, government leadership, and community support; however, further modifications (e.g., emphasizing the voice of students, school culture, and leadership from school districts) can be made to refine these conditions to better improve successful implementation (1)
	• The primary aim of this study was to examine the Comprehensive School Health (CSH) framework and further understand the essential conditions needed for undertaking such an approach across Canada.
	• This study conducted semi-structured and small group interviews with a total of 45 participants across the country, which included stakeholders (e.g., teachers, administrators, managers, and consultants) representing the education and government sectors.
	• Core conditions that are essential for a CSH approach to be successful include the following: 1) students acting as change agents; 2) school-specific autonomy; 3) administrative leadership; 4) provincial/territorial and community support; 5) champions to engage school community; 6) evidence-informed decision-making; and 7) professional development.
		High	*Publication date:* 2020
			
			Jurisdiction studied: Canada
			
			Methods used: Qualitative descriptive study; semi-structured and small group interviews
				None reported

	• Contextual conditions that can influence the success of a CSH approach include: 1) time; 2) community connectivity; 3) readiness; and 4) funding and support. • Overall, participants supported the core conditions listed, however, did highlight the need to modify certain conditions, such as emphasizing further the voice of students, school culture, leadership from school districts and ministries, and parental support. • Participants further supported the adoption of an evaluative tool that was concise, meaningful, and could provide feedback to improve the comprehensive school health approach.			

• Type of support provided
  ○ Developing supportive policy
• By which levels of government
  ○ National
  ○ Sub-national (e.g., provincial, state)
• For which components of Comprehensive School Health
  ○ Policy
• Implementation outcomes
  ○ Sustainability of comprehensive school health initiatives
• Comprehensive school outcomes
  ○ Educational outcomes
  ▪ Improved learning
  ▪ Academic achievement
  ○ Reduced behavioural problems
  ○ Improved emotional health/wellbeing
• Health outcomes
  ○ Improved health status
  ▪ Self-rated general health
  ○ Adopting healthy behaviours
  ▪ Physical activity
  ▪ Nutritional status
  ○ Improved mental health
	An assessment of select schools in the City of Tshwane reported non-compliance with the Integrated School Health Policy; poor stakeholder collaboration can lead to fragmented school health service delivery and decreased learning outcomes for students (12)
	• The primary focus of this study was to assess select schools in the City of Tshwane for their compliance with the Integrated School Health Policy (ISHP) in 2015.
	• The findings from this study indicated that there was non-compliance to the ISHP across many schools in the City of Tshwane.
	• The lack of collaboration and poor integration of stakeholders resulted in fragmented school health service delivery, and an unsustainable approach.
	• Consequences that can arise from its unsuccessful implementation include delayed or poor detection of mental, psychosocial, and health challenges related to learning and nutrition for students.
		High	*Publication date:* 2019
			
			Jurisdiction studied: City of Tshwane, South Africa
			
			Methods used: Quantitative descriptive study
				None reported

• Type of support provided
  ○ Developing supportive policy
  ○ Collaborating and creating partnerships horizontally (i.e., across ministries) and vertically (i.e., across different levels of government)
  ○ Supporting professional development
• For which components of Comprehensive School Health
	This study supports the adoption of a systematic approach to intersectoral collaboration built on the Diagnosis of Sustainable Collaboration model, and notes five managements styles that can assist with this in its early stages (13)
	• The primary aim of this study was to examine the effectiveness of a systematic approach founded upon the Diagnosis of Sustainable Collaboration model, which aimed to assist comprehensive school health promotion
		Medium	*Publication date:* 2015
			
			Jurisdiction studied: Netherlands
			
			Methods used: Case study
				Not reported

○ Partnerships and Service • Implementation outcomes • Adoption of comprehensive school health or equivalent frameworks	coordinators in change and project management processes and facilitate collaboration. • The results from this study indicated substantial growth and improvement with respect to change and project management processes. • In particular, improvement was observed in consensus development, commitment formation, and policy alignment. • Some management styles that can reportedly support collaboration in the early stages include actively engaging relevant parties, informing relevant parties; controlling and supporting the completion of tasks, and coordinating collaborative processes.			
• Type of support provided ○ Funding initiatives ○ Collaborating and creating partnerships horizontally (i.e., across ministries) and vertically (i.e., across different levels of government) ○ Supporting professional development • By which levels of government ○ Sub-national (e.g., provincial, state) • For which components of Comprehensive School Health ○ Teaching and learning ○ Social and physical environment ○ Partnerships and service	School district staff emphasize the importance of linking regional partners such as provincial organizations, regional health services, benefit providers, and funders to coordinate efforts to support well-being across school communities (14)	Low	*Publication date:* 2023 *Jurisdiction studied:* Two provinces in Western Canada *Methods used:* Multiple case study	None reported
• Type of support provided ○ Developing supportive policy ○ Allocating resources, apart from funds ○ Funding initiatives • By which levels of government ○ National • For which components of Comprehensive School Health ○ Teaching and learning ○ Social and physical environment ○ Partnerships and Service • Implementation Outcomes ○ Adoption of comprehensive school health or equivalent frameworks ○ Resources spent on comprehensive school health initiatives • Comprehensive school outcomes ○ Educational outcomes ▪ Academic achievement	Any effort aimed at improving public health interventions to improve children's well-being should involve the public education system. Educational institutions already provide a wide range of public health initiatives and services, and they have the potential to expand their contributions even further in order to meet the requirements of the Elementary and Secondary Education Act, the Individuals with Disabilities Education Improvement Act, the guidance provided in numerous health and mental health reports, and the goals outlined in Healthy People 2020 (15) • Indicators of progress toward improving personal well-being and creating healthy and safe schools, as well as benchmark indicators of the impact of interventions designed to directly prevent and address interfering factors, should be included in the framework. • The framework must embrace the concept of tying together school and community resources in order to create a full continuum of intervention systems that facilitate their horizontal and vertical integration.	Low	*Publication date: 2011* *Jurisdiction studied*: United States (no specific state*)* *Methods used:* Descriptive policy analysis	• Personal characteristics associated with discrimination (age, disability)

○ Reduced behavioural problems: disengagement, dropout • Health outcomes ○ Adopting healthy behaviours ○ Improved mental health	• Initiatives aimed at overcoming obstacles to education and re-establishing connections with disengaged students incorporate elements from both the realms of public education and public health priorities. Instances of these initiatives involve: (1) engaging in targeted educational sessions tailored to bolster specific aspects of understanding, skills, and attitudes regarding mental health topics; (2) participating in programs that enrich learning and involve community service within school settings or the local community; and (3) engaging in after-school programs focused on the development of young individuals.			

Appendix 4: Detailed jurisdictional scan about stewardship policies and activities for improving and sustaining healthy school communities

Country	Type of support provided	Description of support provided	Reported outcomes of support provided

Australia	• Type of support provided
	  ○ Demonstrating commitment to comprehensive school health (e.g., mention in strategic policy documents)
	  ○ Championing comprehensive school health or equivalent frameworks (e.g., designating a role to promote/support/advance the implementation of comprehensive school health)
	  ○ Funding initiatives
	  ○ Collaborating and creating partnerships horizontally (i.e., across ministries) and vertically (i.e., across different levels of government)
		• The Australian Council for Health, Physical Education and Recreation promotes the WHO Global Standards for Health Promoting Schools framework and audit tool that allows schools to understand six key features such as healthy school policies, physical school environment, social school environment, health skills and education, community involvement, and access to health services
		• State and Territories provide support and funding to promote healthy schools
		  ○ The National Student Wellbeing Program received $203.7 million from the Federal government in order to support States and Territories with managing student health services
		  ○ Healthway and the Government of Western Australia provide funding to schools for projects that promote activities within the Health Promoting Schools Framework
		  ○ The New South Wales government established and funded the Healthy Children Initiative which is delivered through the Office of Preventive Health and local health districts
		• The Australian curriculum promotes the importance of healthy school environments
			• Both 2018 and 2022 independent evaluations of the National Student Wellbeing Program reported to be effective and valued in supporting student wellbeing through direct supports (e.g., running breakfast clubs), indirect supports (e.g., 'being present' to create a safe and supportive school environment by having consistent role models from the community, help to identify and respond to behavioural or social challenges, empower students), however the religious affiliation related to the use of Chaplains within the program posed as a potential challenge in some schools, especially among students with different gender identities

Brazil	• Type of support provided
	  ○ Demonstrating commitment to comprehensive school health (e.g., mention in strategic policy documents)
	  ○ Passing laws, bills or legislation
	  ○ Championing comprehensive school health or equivalent frameworks (e.g., designating a role to promote/support/advance the implementation of comprehensive school health)
	  ○ Funding initiatives
	  ○ Collaborating and creating partnerships horizontally (i.e., across ministries) and vertically
		• The Health at School Program (Programa Saude na Escola; PSE) is a joint program between the ministries of Health and Education that aims to integrate health promotion, prevention and health services at schools, as well as provide health education training to students
		  ○ The program, which was established in Presidential Decree no 6,286 on 5 December 2007, sets standards to systematize health promotion interventions delivered by state- and local-level education plans
		  ○ From January 2020 to December 2022, the Ministry of Health invested more than R$ 600 million (roughly CAD$ 163 million) to help support the program.
		• The School Feeding Program in primary schools of Brazil (PNAE) is overseen by the National Fund for Development in Education (FNDE), which is linked to the Ministry of Education.
			• PNAE, in combination with other programmes, was found to improve the availability and consumption of fruits and vegetables at schools. A survey of 2950 municipalities showed that the school menus offering fruits and vegetables rose from 28% and 57% respectively in 2004 to 62% and 80% by 2006.

Country	Type of support provided	Description of support provided	Reported outcomes of support provided
	(i.e., across different levels of government)	○ Law No. 11,947 outlines requirements for addressing nutritional education in schools and supporting sustainable development by setting the minimum percentage of foodstuffs purchased directly from family farming to 30%. • The law and related resolutions also outline the per capita financial contributions made by the federal government to state and municipal entities to carry out the program, which are based on the pre-school, primary, secondary or post-secondary status of the enrolled students as well, as well as schools that operate full time (minimum 7 hours) or those schools located in indigenous areas and quilombos (communities originally established by escaped slaves).	
Canada	• Type of support provided ○ Demonstrating commitment to comprehensive school health (e.g., mention in strategic policy documents) ○ Funding initiatives ○ Collaborating and creating partnerships horizontally (i.e., across ministries) and vertically (i.e., across different levels of government)	• The pan Canadian Joint Consortium for School Health was established by provincial, territorial and federal governments to bring together education and health in efforts to improve health, well-being and achievement outcomes in Canadian Children and Youth ○ Representatives from each of the education and health ministries of 12 provinces and territories as well as the Public Health Agency of Canada, who acts as the federal representative work together to enhancing public school experience using a comprehensive health approach • The Public Health Agency of Canada has developed a Blueprint for Action for preventing substance-related harms among youth through a comprehensive school health approach, which sets out action plans and strategies at various levels of the Canadian education system to prevent substance-related harms among youth • The Public Health Agency of Canada hosts a School Health Grant for Youth program through which provides secondary school students who have ideas to develop a youth-driven project to improve healthy living in their school with funds to do so • The Canadian Healthy Schools Alliance is a network of organizations who promote health and well-being in school communities across Canada ○ As part of their work they promote the National Healthy Schools Week, which is an annual event where schools can engage students, staff and community members in conversations, experiential learning and action planning to support the wellbeing of the school	• None identified

Country	Type of support provided	Description of support provided	Reported outcomes of support provided
		community by using the National Health Schools Week planning toolkit ○ The Alliance has also created the Canadian Healthy School Standard to support the advocacy and initiation of whole-school approaches to health and wellbeing • The Healthy Schools Certification was developed to complement the Canadian Healthy School Standard, through which schools are expected to assemble team, identify priority health areas and develop interventions to improve them	
Iceland	• Type of support provided ○ Developing supportive policy ○ Allocating resources, apart from funds	• Health-Promoting Schools (HPS) aim to systematically promote health across multiple areas including mental, physical, and social health. ○ This program is managed under the Iceland Directorate of Health. ○ Promotes collaboration for health promotion among the whole school. ○ Takes a whole-school approach that includes policy, school environment, student health education, community relationships, health services. • Health promoting schools are implemented across all levels of the school system including preschools, elementary schools, and upper secondary schools. ○ Each level has a unique set of health themes. ▪ Preschools: safety, local community, nutrition, physical activity, dental health promotion, mental health promotion, parents and family, staff ▪ Elementary schools: students, local community, exercise & safety, diet & dental health, home, mental health, life skills, staff. ▪ Upper secondary school: exercise, nutrition, mental health, tobacco, e-cigarettes, alcohol and drugs, equality, sexual health, staff, and safety • Schools must apply to be recognized as a Health Promoting School ○ Schools that submit an application have made an ongoing commitment, for at least one year, to promoting health within the school. ○ HPS receive assistance such as access to an online system to manage health promotion activities, access to educational material, and phone/e-mail support. ○ Preparatory work for the application includes: ▪ Forming a steering committee ▪ Checking school status	• The number of schools that participate in HPS programs are: ○ 32% of preschools ○ 63% of elementary schools ○ 100% of upper secondary schools

Country	Type of support provided	Description of support provided	Reported outcomes of support provided
		▪ Drafting a health policy ▪ Filling a checklist • The Iceland Education Policy 2030 (EP2030) is an education strategy spanning ten years. o One of the pillars is well-being in education. o Focus on a holistic approach to student well-being across 6 focus areas: Health promotion, mental health, prevention, school counselling, students' voices, everyone's well-being. o Aims to engage other public institutions outside of schools in improving student well-being. o Aims to improve student agency and will be implemented in 3 phases.	
Norway	• Type of support provided o Demonstrating commitment to comprehensive school health o Developing supportive policy	• Norway is a member of Schools for Health in Europe (SHE) network. However, no national or regional guidelines, tools, standards, indicators, funding, monitoring, or evaluation program exists to assist schools in becoming HPS (Health Promoting School). According to a 2020 evaluation, every school includes health promotion activities, but merely 25 percent of schools officially follow the 'comprehensive school approach' outlined by health promoting schools • The Government has a National Action Plan (2017-2021) for a Better Diet which includes promoting healthy meals and meal arrangements in schools, as well as collaboration with businesses for healthier products, good food and meal frameworks in kindergartens and schools, and targeted communication measures. • The national policy requires health promotion as part of the school's educational goals and curriculum, physical environment for health such as playgrounds, social environment for student socialization and wellbeing, and physical education. • There are other supportive policies for healthy school, although more focused on nutrition. o The Education Act, the Public Health Act and the Food Act are the regulations that constitute the relevant framework legislation for meals in schools and after-school education. o In 2015, the Norwegian Directorate of Health published new national professional guidelines for school food and meals. The goal of the guideline was to help ensure that students have a good meal framework and that the food on offer is of good	• Health outcomes o Adopting healthy behaviours ▪ Physical activity ▪ Nutritional status

Country	Type of support provided	Description of support provided	Reported outcomes of support provided
		nutritional quality, and that schools and after-school care work holistically with food and meals. • In 2016, in collaboration with agricultural information offices and the Norwegian Seafood Council, the Directorate of Health created the canteen course Refill in 2016. The course combines cooking and theory and aims to inspire those who work in and around secondary school canteens or food stalls to prepare more appealing and healthy food for the students.	
Netherlands	• Type of support provided o Demonstrating commitment to comprehensive school health o Developing supportive policy o Championing comprehensive school health or equivalent frameworks o Funding initiatives o Collaborating and creating partnerships horizontally and vertically	• Netherlands is a member of Schools for Health in Europe (SHE) network. The Dutch National Institute for Public Health and the Environment (RIVM) is the national coordinator for the Netherlands who has a main role in supporting health-promoting schools in the country through contact and dialogue with school authorities, schools and practitioners. • There are national or regional guidelines, standards, or indicators to assist schools in becoming Health Promoting School. • National policies require the following: smoke-free school facilities and canteens that adhere to national safety and hygiene standards; a social environment that includes support services and accommodations for students with special, developmental, and physical needs; and the integration of physical education, mental health and wellbeing, and health literacy as part of school policies. • Municipal Public Health Services advise schools that wish to adopt the Healthy School approach, which is embedded in school policy and the school evaluates its health activities every year. • Schools may apply for funding through the national program 'Healthy Schools' which in addition to receiving funding from the national program "Healthy Schools" are subject to a national monitoring and evaluation program. • Organisations, such as the Nutrition Centre, Trimbos Institute, and the Netherlands Institute for Sport and Movement (NISB), develop programmes to be implemented in school classes. • RIVM cooperates with national and local partners including Community Health Services and the Education Agenda on Sport, Movement and Healthy Lifestyle.	• Implementation Outcomes o Adoption of comprehensive school health or equivalent frameworks
Sweden	• Type of support provided	• The Swedish National Agency for Education's national curriculum framework outlines the target focus of physical	• The Global Child Nutrition Foundation's program report captures high-level findings

Country	Type of support provided	Description of support provided	Reported outcomes of support provided
	○ Demonstrating commitment to comprehensive school health (e.g., mention in strategic policy documents) ○ Developing supportive policy ○ Championing comprehensive school health or equivalent frameworks	education and health to promote comprehensive school health, organized by age groups. • The Swedish National Agency for Education's national curriculum for preschool outlines guiding values and provides guidelines to support and promote comprehensive school health. • The Swedish Government provides school lunches for all students ages 6 to 16, and most students 16-19. The Swedish Food Agency is responsible for the national guidelines for school meals, which is based on the Nordic Nutrition Recommendations. • Other relevant documents that provide insights into Sweden's approach to comprehensive school health: ○ The Schools for Health in Europe Network Foundation's country-specific profile of Sweden's implementation of school health promotion ○ The European Commission's 2013 report on school food policy in Sweden provides some insights into school food policy standards and guidelines	from the Swedish School Meals program (*Svenska skolmåltider*) during the 2020-2021 school year.
Switzerland	• What type of supports ○ Demonstrating commitment to comprehensive school health (e.g., mention in strategic policy documents) ○ Developing supportive policy ○ Funding initiatives ○ Supporting professional development	• The Schools for Health in Europe Network Foundation conducted a survey in September 2020 on the adoption of school health promotion initiatives in schools in Switzerland and found: ○ Facilitators of health promotion in schools include a national educational policy and/or curriculum, teacher motivation, and training and support from school administration/local authorities ○ Barriers of health promotion include a lack of time, energy, support, and compensation for staff, and competing priorities and/or feelings of burnout • There exists one national guideline in Switzerland for schools to help them work towards a Health Promoting School (HPS) approach ○ HPS consists of six components, the first of which is mandatory by the national policy and the proceeding three are recommended by the national school network: 1) healthy school policies (e.g., schools sign a contract to include a health promotion action plan); 2) the school's physical environment; 3) the school's social environment; 4) individual health skills and action competencies; 5) community links; and 6) health services	• "Fit4Future" is an initiative offered to schools to support the health promotion of primary school children; features of this program include: ○ A total of 150,000 students participating in these efforts; ○ Training for educators; ○ Sports equipment that can be made accessible to students; ○ Health experts invited to lead workshops at schools; ○ Focus on exercise, nutrition, and brain fitness/mental health; ○ Offerings in three languages; and ○ Free of charge

Country	Type of support provided	Description of support provided	Reported outcomes of support provided

		• Schools can receive funding from federal offices in Switzerland to help support them in achieving the objectives set by the HPS national policy
		• Food policy objectives in schools in Switzerland focus on:
		  ○ Improving child nutrition;
		  ○ Learning healthy habits;
		  ○ Reducing/preventing obesity and malnutrition;
		  ○ Tackling health inequalities; and
		  ○ Supporting local agriculture	

United Kingdom	• Type of support provided
	  ○ Demonstrating commitment to comprehensive school health (e.g., mention in strategic policy documents)
		• The Department of Education's national curriculum framework sets out the programs and attainment targets which reflects a commitment to supporting comprehensive school health.
		• The Department of Education has established food standards to help kids eat healthy and have the energy and nutrients they need for a full day of school, promoting comprehensive school health.
		• The Department of Education has established policies for out-of-school-settings providers, including their staff and volunteers, offering voluntary guidance on child safety measures, to further promote comprehensive school health.
		• The Department of Health and Social Care has established guidelines for the recommended amount and nature of physical activity to improve individuals' well-being, further supporting comprehensive school health.
		• The UK Government earmarked £415 million in the 2018 to 2019 academic year, to fund after-school activities, new facilities for physical education, and support healthy eating in schools, as part of their approach for comprehensive school health.
		• The Department of Education has established the healthy schools rating scheme, which is a self-assessment tool meant to help schools determine how well they are promoting health eating and physical activity.
		• Other relevant documents that provide insights into the UK's approach to comprehensive school health:
		  ○ National Healthy Schools Programme: Developing the Evidence Base
		  ○ A 2004 report evaluating the impact of the National Healthy School Standard (NHSS) found that schools generally highly valued their participation in both the
			• None identified

Country	Type of support provided	Description of support provided	Reported outcomes of support provided
		NHSS and local healthy schools programs, appreciating the adaptable framework it offered ○ Healthy Lives, Healthy People: Our strategy for public health in England ○ Safeguarding in English schools ○ Keeping children safe in education 2022: Statutory guidance for schools and colleges	
United States	• What types of support ○ Demonstrating commitment to comprehensive school health ○ Developing supportive policy ○ Championing comprehensive school health or equivalent frameworks ○ Allocating resources, apart from funds ○ Funding initiatives ○ Supporting professional development	• The U.S. Centers for Disease Control and Prevention (CDC) has a Health Schools initiative that focuses on preventing chronic diseases and promoting the health and well-being of children and adolescents in U.S. schools • The CDC also has a school-based *What Works In Schools* program that promotes adolescent health and well-being and supports the implementation of quality health education and safe and supportive school environments for adolescents • CDC Healthy Schools and the *What Works in Schools* program works with school health partners across the U.S. • The National School Lunch program (NSLP) provides low-cost or free lunches to children in public, nonprofit private, and residential childcare institutions across the U.S. ○ At the federal level, the NSLP is administered by the Food and Nutrition Service of the USDA and at the state level, the program is administered by state agencies that have agreements with school food authorities • The CDC has Standards for Health Education that helps to ensure school curricula support and promote health-enhancing behaviours of students in all grade levels • In particular, the National Sex Education Standards describes the knowledge and skills students need to grow into sexually healthy adults • School health policy resources are listed on the CDC's website • CDC Healthy Schools is implemented using the Whole School Whole Community Whole Child (WSCC) model which is a student-centred framework that emphasizes the role of the community in supporting schools ○ School leaders and staff have the flexibility to apply the WSCC model in the way that best serves their students ○ Examples of the WSCC model in action are available • The CDC collects and monitors data and statistics on youth behaviours and healthy school policies and practices	• The CDC has a system of surveys that assess school health practices and policies • The CDC 2020 School Health Profiles report highlighted improvements in students' knowledge about their emotional, mental and sexual health ○ In half of the schools, students were connected to service-learning programs, but fewer than 3 in 5 educators received training in teaching students from diverse backgrounds • Schools that have participated in the CDC's *What Works in School* program reported improvements in sexual behaviours and decreases in the number of students who experience forced sex, miss school because of safety concerns, and use marijuana • In 2019, the National School Lunch program served over 4.8 billion lunches to children in the U.S.

Country	Type of support provided	Description of support provided	Reported outcomes of support provided

		through surveillance systems administered by the Division of Adolescent and School Health (DASH)
		• The CDC's Health and Education Curriculum Analysis Tool (HECAT) can be used by district school and staff to develop curriculum based on adolescent health needs and community priorities
		• In addition to funding, CDC Healthy Schools provides technical assistance and develops resources, specialized tools, and recommendations to support school health partners
		  ○ Support is also provided to parents, school administrators and staff
		• The *What Works in Schools* program provides health education tools and resources for health educators
		• The Prevention and Public Health Fund (PHHF) has funded public health programs for the CDC since 2010, including National Early Child Care Collaboratives
		• CDC Healthy Schools funds state education and health agencies as well as universities and a tribal nation
		  ○ Their work is funded by a five-year cooperative agreement with six national nongovernmental organizations
		• School-based services (SBS) providers can be reimbursed for costs associated with delivering and administering services covered by Medicaid that are provided to children in school settings
		  ○ Covered services include routine preventive care, primary care, and services provided to children with disabilities
		• Participating school districts and independent schools of the National School Lunch program (NSLP) receive cash subsidies and U.S. Department of Agriculture (USDA) Foods for every reimbursable meal they serve
		• Professional development training is available to school staff through CDC Healthy Schools and can be accessed on their website
		• The *What Works in Schools* program provides professional development and training in health education for staff in schools, departments of health and education, and national organizations	

Appendix 5: Documents excluded at the final stages of reviewing

Document type	Hyperlinked title
Single studies	Supporting the whole child through coordinated policies, processes and practices
Grey literature	Healthy schools, healthy children, healthy futures: The role of the federal government in promoting health through the schools

Waddell K, Alam S, Ali A, Bain T, Bhuiya A, Cura N, Dass R, Demaio P, Phelps A, Wilson MG. Rapid evidence profile #55 appendices: National and sub-national stewardship for improving healthy school communities and student health outcomes. Hamilton: McMaster Health Forum, 23 August 2023

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