School Health Promotion in Latin America and the Caribbean: A Regional Assessment

PAHO
Pan American Health Organization
World Health Organization
Regional Office for the Americas

School Health Promotion in Latin America and the Caribbean: A Regional Assessment

Washington, D.C., 2022

PAHO Pan American Health Organization World Health Organization Regional Office for the Americas

School Health Promotion in Latin America and the Caribbean: A Regional Assessment

ISBN: 978-92-75-12592-2 (PDF)
ISBN: 978-92-75-12594-6 (Print version)

Suggested citation: Pan American Health Organization. School Health Promotion in Latin America and the Caribbean: A Regional Assessment. Washington, DC: PAHO; 2022. Available from: https://doi.org/10.37774/9789275125922.

Cataloguing-in-Publication (CIP) data: Available at: http://iris.paho.org.

Sales, rights, and licensing: To purchase PAHO publications, email: sales@paho.org. To submit requests for commercial use and queries on rights and licensing, visit: https://www.paho.org/en/publications/permissions-and-licensing.

PAHO/FPL/PS/2022

Cover design: © Prographics/Emilia Palomeque
Cover photo: © PAHO
Design concept: © Prographics

Contents

Preface v

Acknowledgments vii

Abbreviations and Acronyms viii

Executive Summary x

Introduction **1**

1.1 A global perspective of health-promoting schools 1

1.2 Health-promoting schools in the Americas 5

Methodology **7**

2.1 Desk review 7

2.2 Country assessments 9

2.3 Stakeholder consultation 11

2.4 Ethical considerations and limitations 11

Results **12**

3.1 Desk review 12

3.2 Country assessments 20

3.3 Stakeholder consultation 34

Conclusions **37**

References 40

Annexes 47

Annex 1 Global standards for health-promoting schools and standard statements 47
Annex 2 Summary details of articles scoping review 48
Annex 3 Existence of national standards, by country, for priority topics 67
Annex 4 Development or revision, by country, of policies or standards for the content of instruction on priority topics in the past two years 69

Figures

1 Scoping review flow chart 12
2 The status of school health policies, strategies, and plans in participating countries 22
3 Topics addressed in school health policies, strategies, and plans 23
4 Student population, by age group, served by school health services 31
5 Estimated percentage of students covered by health services, by age group 32

Tables

1 The Focusing Resources on Effective School Health (FRESH) framework 3
2 School health legislation, policies, strategies, and plans by country or territory 15
3 Components addressed in the school health legislation, policies, strategies, and plans by country or territory. 18
4 Countries and territories that completed the school health survey, by subregion 20
5 Coverage of school health activities by country/territory and student age group 26
6 Healthy and safe learning environment components assessed in the survey 27
7 Recent development or revision of time requirements for health education, certification or accreditation of HPS, and professional development by country 29
8 Organization of school health services by country 30
9 Estimated number of school health personnel per 100 students 32

Boxes

1 The School Health Program in Brazil – the Programa Saude na Escola (PSE) 21
2 The national school health program in Argentina – PROSANE 23
3 Health and family life education (HFLE) 25

Preface

The Sustainable Development Goals (SDGs) and the Global Strategy for Women's, Children's and Adolescents' Health highlight the strategic importance of young people for the success of the 2030 Sustainable Development Agenda. The essential role of the school in promoting the health and development of human capital is well-established and has gained greater emphasis in the context of the SDGs; it brings a renewed urgency to the implementation of evidence-based and multi-sectoral actions for improving the health and well-being of children and adolescents in a more effective, integrated, and equitable manner, with no one left behind.

For several decades, the World Health Organization (WHO), the United Nations Educational, Scientific and Cultural Organization (UNESCO), and other partners have invested in comprehensive school health approaches using the health-promoting school (HPS) approach and other initiatives. In 2018, WHO and UNESCO launched a global initiative to "make every school a health-promoting school." In the context of that initiative, global standards and indicators for HPS, an implementation guide, and a guideline on school health services were developed; they were published in 2021.

In the Region of the Americas, the HPS approach, launched jointly in 1995 by PAHO/WHO, UNESCO, and the Organization of American States (OAS), has gained major traction. Almost every country in the Region has promulgated actions ranging from developing legislation, policies, and plans to implementing school-level actions of various scopes. In addition to the HPS initiative, a range of other regional partners, including the World Bank, the Food and Agricultural Organization (FAO), the World Food Program (WFP), UNICEF, and UNFPA, have dedicated mandates and initiatives that target school-aged children and the educational system.

Latin America and the Caribbean (LAC) continues to be the most inequitable Region globally, and these inequities affect the health and development of children and adolescents. Children and adolescents from poor, lower educated, and ethnic minority groups carry disproportionate burdens of illness and preventable mortality. Mainstreaming and effectively implementing the HPS approach can significantly contribute to giving children, adolescents, their families and communities—particularly those from vulnerable groups—equitable opportunities for health, well-being, and development.

In order to better understand the current status of school health and the HPS approach in LAC and to establish a baseline for scaled-up implementation, PAHO/WHO collaborated with UNESCO, UNICEF, and the World Bank in 2018–2019 to conduct a regional assessment, which is presented in this report. The objectives were:

1. To assess the context and broader policy environment of school health in the Region, including legislative frameworks.

2. To identify the scope and form of school health programs and services available in the Region and identify opportunities for improvement.

3. To enable countries to share with other countries of the Region the best practices and lessons learned from developing and implementing school health policies, programs, and services.

The results of this assessment are expected to contribute to strengthening the HPS approach in the LAC Region on subnational, national, and regional levels, and thus help accelerate progress in achieving the SDGs for all children and adolescents in the Region.

This assessment was conducted before the COVID-19 pandemic. The impact of the pandemic underlined the prominent role and multiple benefits of schools as an environment for protecting and promoting the health and well-being of children and adolescents both during the pandemic and the recovery phase.

Dr. Andres de Francisco Serpa
Director
Family, Promotion and Life Course Department

Acknowledgments

PAHO/WHO acknowledges all the following who contributed to this document:

Authors: Sonja Caffe (PAHO/WHO), Gerry Eijkemans (PAHO/WHO), Fernanda Lanzagorta (PAHO/WHO), Daniel Tobon Garcia (consultant).

Contributors: Betzabe Butron (PAHO/WHO), Claudina Cayetano (PAHO/WHO), Mary Guinn Delaney (UNESCO), Izola Garcia (PAHO/WHO), Amparo Gordillo (World Bank), Brigitte de Hulster (PAHO/WHO), Leendert Nederveen (PAHO/WHO), Alejandra Trossero (UNICEF), Janice Woolfort (PAHO/WHO).

The extraordinary contributions from the regional partners, the 18 countries that participated in the country assessment, and the participants in the regional stakeholder meeting are also gratefully acknowledged.

Abbreviations and Acronyms

AAHA!	(Global) Accelerated Action for the Health of Adolescents
CARICOM	Caribbean Community
CDC	Centers for Disease Control and Prevention
CNHPS	Caribbean Network of Health-Promoting Schools
COMISCA	Consejo de Ministros de Salud de Centroamerica [Council of Ministers of Health of Central America]
CSE	Comprehensive sexuality education
FAO	Food and Agriculture Organization of the United Nations
FRESH	Focusing resources on effective school health
G-SHPPS	Global School Health Policies and Practices Study
GSHS	Global School-based Student Health Survey
GYTS	Global Youth Tobacco Survey
HFLE	Health and family life education
HIV	Human immunodeficiency virus
HPS	Health-promoting school(s)
INABIE	Instituto Nacional de Bienestar Estudiantil
IUHPE	International Union for Health Promotion and Education
LAC	Latin America and the Caribbean
LANHPS	Latin American Network of Health-Promoting Schools
NGO	Nongovernmental organization
OAS	Organization of American States
PAHO	Pan American Health Organization
PROINAPSA	Instituto de Programas Interdisciplinarios en Atención Primaria de la Salud
PROSANE	Programa Sanidad Escolar
SABER	System Approach for Better Education Results
SDG	Sustainable Development Goal
SDH	Social determinant of health

SRH	Sexual and reproductive health
SRHR	Sexual and reproductive health and rights
STI	Sexually transmitted infection
UN	United Nations
UNESCO	United Nations Education, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UNODC	United Nations Office on Drugs and Crime
WHO	World Health Organization

Executive Summary

This document presents the findings of a regional assessment of school health in Latin America and the Caribbean (LAC). The goal was to analyze the current status of school health and the HPS approach in LAC in order to identify priorities and strategic actions that can strengthen the HPS approach to make every school in the Region a health-promoting school.

The objectives:

1. To assess the context and broader policy environment of school health in the Region, including legislative frameworks.

2. To identify the scope and form of school health programs and services in the Region, as well as opportunities for improvement.

3. To enable countries to share best practices and lessons learned in the development and implementation of school health policies, programs, and services.

The pillars of the FRESH and IUHPE frameworks informed the design of this regional assessment, including review checklists and tools. Based on these frameworks, the assessment focused on the following six elements:

- Governance of school health programs
- School health policy environment
- Health education and curriculum
- Healthy and safe learning environment
- Student and community participation
- Access to health services

The assessment consisted of three main components: 1) desk review, which included a scoping review of published peer-reviewed articles and review of country legislation, policies, strategies, and plans; 2) country assessments conducted in 18 countries; and 3) a stakeholder consultation with 40 participants representing regional partners, ministries of health and education, civil society, academia, and youth.

The assessment results indicated that school health and the health-promoting schools (HPS) approach are firmly embedded in the fabric of the Region of the Americas, referred to by different terms—school health, healthy schools, and HPS. The term HPS has stronger resonance in Latin America than in the Caribbean, where health and family life education (HFLE) is considered the flagship school health strategy. The majority of countries have developed legislative and policy instruments related to school health, some specifically dedicated to school health and others with school health incorporated in wider governance instruments. Countries with dedicated school health legislation and/or policies were most likely to have operational plans for implementing school health programs. However, only slightly over half of the countries have mechanisms for documenting and monitoring the coverage and results of school health and HPS actions. Limited political will, insufficient funding, and lack of coordination between stakeholders were identified as major challenges in implementing school health policies, strategies, and plans.

The organization, scope, and funding of school health and HPS programs and activities vary widely, from structured government-funded programs with assigned resources to fragmented, externally funded initiatives of limited duration. The scoping review of peer-reviewed literature indicated a multitude of implementation studies and projects in schools across the Region that addressed a range of topics. The majority of the initiatives ranged from short duration (a few months) to medium duration (a few years). They usually did not have a national scope, which raises the question of how extensively the initiatives improved the health of school children and adolescents beyond the interest of the study. The assessment underlined the importance for countries to develop national strategies and plans to which donors, regional partners, and researchers can contribute, rather than having school health efforts driven by external interests.

The organization and package of school health services varies between and within countries and includes school-based health services, school-linked health services, and scenarios where teachers provide some services. Activities from school health teams extended beyond the clinic to public health action in the classroom and support for teachers and parents. Challenges associated with school health services included: lack of clear, supportive legislation and regulation, a shortage of personnel trained in school health, lack of funding, inadequate standardization of school health services, and limited involvement of parents and caregivers.

Effective partnerships were identified as a critical challenge and condition for successful and efficient school health programs. Of primary importance are partnerships between the ministries of health and education and the private sector and civil society—including youth-led and youth-serving organizations, regional partners, and other relevant stakeholders.

The assessment highlighted the importance of continued efforts to foster a common understanding of core school health and HPS concepts and essential implementation dimensions. Regional partners can play an important role through advocacy and technical guidance and support for implementation.

The assessment was conducted before the COVID-19 pandemic. The impact of the pandemic has underlined the prominent role and multiple benefits of the school as an environment for social interaction, play and learning, structure, and protecting children and adolescents. Schools have an important role in mitigating the indirect consequences of COVID-19 on the health, well-being, and development of children and adolescents during the pandemic and in the recovery phase.

1

Introduction

1.1 A global perspective of health-promoting schools

Childhood and adolescence are critical periods of human development in which the foundation for health and development during the life course and across generations is established. The health and education of children and adolescents are strongly interrelated. A healthy child or adolescent is better equipped to perform well in school, and a child or adolescent who is well educated is more likely to make informed and better choices for his or her health. Better educated students become healthier adults, and parents of healthier children. A global analysis of the social determinants of health and adolescence identified access to quality education as one of the strongest determinants of adolescent health (*1*). In addition, safe and supportive families and schools and positive and supportive peers were highlighted as crucial to helping adolescents attain the highest possible level of health and well-being in their transition to adulthood (*1*).

Available evidence confirms the mutual benefits of investment in human development to achieve health and educational goals. In the context of the Sustainable Development Goals (SDGs), the role of the school in promoting the health and well-being of children and adolescents has gained new momentum as an equitable, cost-effective strategy for simultaneously pursuing several SDGs, particularly SDGs 3 and 4 (*2*).

Recognition of the vital role of schools in the health and development of children and adolescents is longstanding. In 1995, the World Health Organization (WHO) launched the Global School Health Initiative with the goal of increasing the number of schools that can be called "health-promoting schools" (HPS) (*3-6*). WHO's Global School Health Initiative is guided by the WHO Expert Committee Recommendation on Comprehensive School Health Education and Promotion (1995) (*7*), the Ottawa Charter for Health Promotion (1986) (*8*), and the Jakarta Declaration of the Fourth International Conference on Health Promotion (1997) (*9*). The initiative defines a health-promoting school as one that continually strengthens its capacity as a healthy setting for living, learning, and working. It does this through:

- Fostering health and learning with all the measures at its disposal.
- Engaging health and education officials, teachers, teachers' unions, students, parents, health providers, and community leaders in efforts to make the school a healthy place.
- Striving to provide a healthy environment, health education, and health services in schools along with school/community projects and outreach, health promotion programs for staff, nutrition and food safety programs, opportunities for physical education and recreation, and programs for counseling, social support, and good mental health.
- Implementing policies and practices that respect an individual's well-being and dignity, that provide multiple opportunities for success, and that acknowledge good efforts, good intentions, and personal achievements.
- Striving to improve the health of school personnel, families, and community members as well as pupils, and working with community leaders to help them understand how the community contributes to, or undermines, health and education.

At the World Education Forum in Dakar in 2000, WHO, UNESCO, UNICEF, and the World Bank launched an interagency initiative called Focusing Resources on Effective School Health (FRESH) (*10, 11*) and agreed on a common framework consisting of four components and three supportive strategies (Table 1).

TABLE 1 The Focusing Resources on Effective School Health (FRESH) framework

COMPONENTS	SUPPORTIVE STRATEGIES
Health-related policies	• Partnership between education and health • Community partnerships • Student participation
Safe water and sanitation	
Skills-based health education	
Access to health and nutrition services	

Sources: United Nations Educational, Scientific and Cultural Organization (UNESCO). The Dakar Framework for Action: Education for All: meeting our collective commitments (including six regional frameworks for action) [internet]. Paris: UNESCO; 2000. Available from: https://unesdoc.unesco.org/ark:/48223/pf0000121147

FRESH Monitoring and Evaluation Coordinating Group (UNESCO, Save the Children, Education International, EDC, UNODC, AIR, World Bank, WHO, UNICEF, PDC). Monitoring and Evaluation Guidance for School Health Programs. Eight Core Indicators to Support FRESH (Focusing Resources on Effective School Health) [internet]. February 2014. Available from: https://healtheducationresources.unesco.org/library/documents/monitoring-and-evaluation-guidance-school-health-programs-eight-core-indicators

Health-promoting schools have been defined in different and often overlapping ways. In 2008, the International Union for Health Promotion and Education (IUHPE) provided a six-point definition of health-promoting schools (*12*):

- School health policies and plans
- A safe physical environment
- Social environment that addresses safety
- Individual health skills and action competencies
- Community links
- Health services

In other literature, a simpler three-point definition is applied (*12, 13*):

1. **Formal health curriculum:** To help students develop the knowledge, attitudes, and skills needed for healthy choices, the formal school curriculum allots a specific amount of time to health education topics.

2. **Ethos and environment of the school:** The health and well-being of students and staff are promoted through the "hidden" or "informal" curriculum, which encompasses the values and attitudes promoted within the school and the physical environment and school setting.

3. **Engagement with families, communities, or both:** Schools seek to engage with families, outside agencies, and the wider community in recognition of the importance of these other spheres of influence on children's attitudes and behaviors.

In 1999, two systematic reviews were conducted with the following objectives: a) to investigate the evidence that health-promoting schools are effective in improving health-related outcomes, and b) to determine whether health-promoting schools are more effective than other ways of delivering health-promoting interventions, and to determine their relative costs (*12*). The researchers concluded that descriptions of interventions and methodological quality varied greatly across the studies and that most studies were underpowered, making it difficult to draw definitive conclusions. Nevertheless, the researchers concluded that the HPS approach is promising, although continued investment and ongoing evaluation are needed to provide evidence about the effectiveness of this approach (*12*).

Another systematic review conducted 15 years later, in 2014 (*13*), concluded that the HPS approach has demonstrated positive results in improving some health behaviors and outcomes, including better nutrition and physical fitness, and had reduced the uptake of tobacco use. However, the approach had not reduced alcohol or drug use, violence, depression, bullying, or being bullied by others. The researchers remarked that very few HPS studies included educational indicators. The overall conclusion was that although there is some evidence to suggest the HPS approach can produce improvements in some areas of health, there is insufficient data to draw conclusions about its effectiveness in other areas. More studies are needed to determine if this approach can improve specific aspects of health and impact academic performance.

In 2015, WHO convened an expert meeting to review school-based interventions and the HPS initiative at the global level (*14*). The experts identified major barriers for HPS implementation: challenges with inter- and intra-ministerial cooperation and collaboration; lack of comprehensive school health policies, plans, and approaches; and limited allocated budget and human resources. The meeting identified nine key factors necessary for successfully implementing school health programs with limited human and financial resources:

- Establish systems for collecting better data and for monitoring, reporting, and providing and using evidence to make policy and implementation plans.
- Strengthen inter- and intra-ministerial cooperation and collaboration among all stakeholders at all levels.
- Strengthen advocacy at all levels for moving from policy to implementation.
- Ensure sustainable funding, better costing, and long-term financing plans and procedures.
- Establish the health education curriculum as a home for all topics.
- Develop an institutionalized human resource, such as pre-service and in-service training for teachers, health personnel, and government staff.
- Promote a comprehensive approach.
- Collaborate with all stakeholders at all levels, including the private sector.
- Promote the engagement of parents, students, and teachers.

The Global Accelerated Action for the Health of Adolescents (AAHA!), published in 2017, states that the evidence for the positive effects of school-based interventions and school health programs is compelling, and that investing in school health is a fundamental priority for intersectoral programs. The AAHA! calls on countries that do not have school health programs to consider establishing them, and for countries that already have such programs to consider critically reviewing them to align them with the evidence base and emerging priorities (*15*).

In 2018, the HPS approach received a renewed global push with the launch of an initiative from WHO and UNESCO to "make every school a health-promoting school," which included a commitment to develop global standards and indicators for HPS and to support their implementation (*16*). Through an inclusive global process, those global standards, along with a recommended list of indicators, were developed; they were officially launched in 2021 (*16*). Annex 1 presents the standards. The global standards and indicators are intended to provide direction to government staff, policymakers in all sectors, and to school leaders and developmental partners for implementing, monitoring, and evaluating sustainable whole-school approaches to health in education. An implementation guide was also developed to support making the global standards operational on national and local levels (*17*). Together with these documents, WHO published guidelines on school health services (*18*). These three documents provide a solid basis for updating and strengthening a comprehensive approach toward school health in the era of SDGs.

1.2 Health-promoting schools in the Americas

The Region of the Americas has a long history of school health initiatives, including the regional HPS initiative, which was started in the early 1990s and officially launched in 1995 as a collaborative effort between the Pan American Health Organization (PAHO/WHO), the United Nations Educational, Scientific and Cultural Organization (UNESCO), and the Organization of American States (OAS) (*19*). Under the initiative, the majority of countries and schools in LAC developed school health strategies and initiatives of varying scopes, some focused on the pre-school level, others at the primary or secondary school level. Activities undertaken related to improving hygiene, water, and sanitation, and to nutrition and exercise, among other aspects. In addition, Latin American and Caribbean networks of HPS were established with the aim of providing a space for exchanging ideas and providing resources and support for sharing experiences among countries. The Latin American Network of Health-Promoting Schools (LANHPS) was established in 1996, the Caribbean Network of Health-Promoting Schools (CNHPS) was established in 2001, and the Puerto Rican Network of Health-Promoting Schools was established in 2004 (*20*). This assessment did not include a review of the current status and functioning of these networks.

In 2003, PAHO published an HPS Strategic Plan for the period 2003–2012 (*21*). It presented a clear articulation of this vision and proposed six main strategies: 1) advocacy for school health programs and

dissemination of the HPS regional initiative; 2) support for institutionalization of the HPS strategy and formulating healthy public policies in educational communities; 3) increasing participation of key actors in managing school health programs; 4) strengthening the capacity of Member States in managing the HPS strategy; 5) research support for developing school health programs; and 6) mobilizing resources.

The strategic plan proposed a holistic, comprehensive, and multidisciplinary approach, and it recognized that educational institutions were important in transforming local communities and sharing aspirations for human development. It aimed to develop future generations who will have the knowledge, abilities, and skills needed to promote and care for their own health, the health of their families and communities, and who will be able to create and maintain healthy physical and psychosocial environments.

The HPS concept and action were carried forward through more recent regional commitments, including the Plan of Action for Women's, Children's, and Adolescents' Health, 2018–2030 (*20*), the Strategic Plan of the Pan American Health Organization 2020–2025: Equity at the Heart of Health (*22*), and the Strategy and Plan of Action on Health Promotion within the Context of the Sustainable Development Goals 2019–2030 (*23*). The goal of this assessment was to analyze the current status of school health and the HPS approach in LAC, in order to identify priorities and strategic actions that can be taken to strengthen the HPS approach in the Region.

The objectives were to:

- Assess the context and broader policy environment of school health in the Region, including legislative frameworks.
- Identify the scope and form of school health programs and services available in the Region, as well as opportunities for improvement.
- Enable countries to share best practices and lessons learned in the development and implementation of school health policies, programs, and services.

The assessment was implemented as a joint effort between PAHO/WHO, UNICEF, UNESCO, and the World Bank, and the results are presented in this report. In the context of renewed global and regional efforts to enhance the scope, coverage, and results of school health, this assessment presents a baseline and serves to inform ongoing and renewed efforts by policymakers, program managers, and other stakeholders in health and education and elsewhere to take targeted actions for making every school in the Region a health-promoting school.

2

Methodology

The components of the FRESH and IUHPE frameworks informed the design of this regional assessment, including the review checklists and tools. Based on the frameworks, the assessment focused on six elements:

- Governance of school health programs
- School health policy environment
- Health education and curriculum
- Healthy and safe learning environments
- Student and community participation
- Access to health services

The assessment consisted of three main components: 1) desk review, 2) country assessments, and 3) stakeholder consultation.

2.1 Desk review

The desk review consisted of two elements: a) a scoping review of peer-reviewed literature on school health and HPS implementation in LAC and b) review of country legislation, policies, strategies, and plans related to school health and HPS in LAC.

2.1.1 Scoping review

The purpose of the review was to gather insight into the scope and content of peer-reviewed information on school health and HPS implementation. Searches were conducted for the period 1995 and onward for English and Spanish papers, and for Portuguese papers with a full English translation or an English abstract. The search engines used were PubMed (including MEDLINE), LILACS, and Scielo. Searches were conducted in English and Spanish using the terms "school health," "healthy schools," and "health-promoting schools" in combination with the names of all countries and territories in LAC.

Review question: what are the scope and contents of school health and HPS programs and interventions in countries in LAC?

- **Identification of relevant literature:**
  - Search concepts: school health; healthy schools; health-promoting schools.
  - Search terms: School health AND (name of the country); healthy schools AND (name of the country); health-promoting schools AND (name of the country); salud escolar AND (name of the country); escuelas promotoras de la salud AND (name of the country); escuelas saludables AND (name of the country).
- **Selection of literature:**
  - Inclusion criteria: papers in English and Spanish published between 1995 and 2019
  - Exclusion criteria: articles that reported only on studies among school or school-aged children and/or were conducted in schools, and multi-country articles mentioning LAC countries without presenting country-specific information.
- **Data charting:** two reviewers selected the articles to be included based on review of titles, followed by abstract review and finally full text review for data extraction.
- **Data synthesis and reporting:**
  - The results were synthesized and interpreted according to the following main themes:
    - Locations (countries and subnational locations).
    - Definitions or concepts of school health and HPS applied: whether the article provided a definition or conceptual framework for the action, and specifically, whether this definition included or reflected the six elements mentioned above.
    - Health topics and scope of the programs and interventions presented in the paper.
    - Results and conclusions.

2.1.2 Review of country legislation, policies, strategies, and plans

The objective of this component was to gain an understanding of the policy environment of school health and HPS in LAC. Searches for these documents were conducted using the Google search engine using the strategy below.

- In the first step, a broad search was performed using the terms "school health," "health-promoting schools," and "HPS" with the name of each country.
- In the second step, more highly targeted individual searches were performed with the terms "law," "legislation," "policy," "strategy," "plan," "program," used in conjunction with "school health," "health-promoting schools," "HPS," and the country name.
- In the third step, the same searches were performed as in the second step, but "school health" and "health-promoting schools/HPS" were replaced with "health" in one search, and "education" in the other. In instances where school-health-specific laws, policies, or strategies were not available in the country, this step broadened the search to any documents pertaining to the health and education sectors. Once located, the reviewer then verified whether such documents included a reference to school health or HPS. When it did contain a reference, the document was included in the catalog of collected materials.
- In the fourth step, an even broader search was performed for countries' policies, strategies, or plans that might not pertain directly to the health and education sectors (e.g., poverty-reduction strategies, development policy, etc.). Once these were identified, a review was performed to identify any references to school health. This step was used in instances in which no other documents had been identified in previous steps.
- Finally, the lists of identified documents were shared with countries through the PAHO country offices for review and validation. During this process, countries could share additional documents not previously identified, which several did.

Data extraction and analysis: The documents that were identified through the search strategy described above were reviewed for the existence and nature of school health content. A distinction was made between documents that focused on school health, and documents that did not specifically focus on school health but that mentioned or referred to school health.

All the documents were categorized as pertaining to one of three areas—legislation; policy; or strategies and plans—and then reviewed for content that related to five key components: 1. governance of school health programs; 2. health education and curriculum; 3. healthy and safe learning environments; 4. student and community participation; and 5. access to health services. The results of the review are presented in the results section as descriptive results expressed in absolute numbers and percentages.

2.2 Country assessments

The country assessments were conducted through two surveys—a national-level survey and a school-level survey. The survey instruments were drawn from existing instruments, including the FRESH monitoring and evaluation guidance for school health programs and tools (*11*), the System Approach for Better Education Results (SABER) (*24*), and the Global School Health Policies and Practices Study (G-SHPPS) (*25*). The survey instruments covered four areas:

1. School health policies and strategies
2. Healthy and safe learning environment
3. Skills-based health education
4. Organization and delivery of health services

The assessment instruments were piloted and validated in two English-speaking countries (Guyana and Trinidad and Tobago) and one Spanish-speaking country (the Dominican Republic) prior to regional implementation. The results of the pilots were used to further adjust the methodology and instruments for regional implementation.

The national surveys were completed by officials from the ministries of health and education or other national institutions with responsibilities for developing, coordinating, implementing, and providing oversight for school health or components thereof. Other relevant local stakeholders, such as NGOs engaged in school health, also completed the national surveys. In the case of decentralized governance, the surveys were completed by officials at the highest decentralized administrative level, such as provincial authorities.

With support from a national data coordinator, the relevant authorities at the ministries of health and education completed the questionnaire separately, followed by a consensus workshop with participation of the two ministries and relevant other stakeholders, such as NGOs and community-based organizations engaged in school health. During the consensus meeting, the initial responses to the survey questions were reviewed and discussed in order to arrive at a consensus response that could be verified with evidence (policy documents, studies, reports, etc.). The final consensus responses were entered into an online SurveyMonkey.

The school-level surveys were designed to be completed by school principals, administrators, teachers, and health workers. In a process similar to that used with the national surveys, relevant school-level stakeholders received a paper copy of the survey in advance, followed by a consensus meeting for discussion and joint completion of the survey through SurveyMonkey. Only countries that conducted a Global School-Based Student Health Survey (GSHS) (*26*) or a Global Youth Tobacco Survey (GYTS) (*27*) in the two years before the regional school health assessment participated in the school-level survey; they used the same GSHS or GYTS sample of schools.

Data extraction and analysis: The Excel data tables were generated by and directly downloaded from SurveyMonkey. The country responses were reviewed and quality control of entries was conducted by cross-checking related questions and comparing them with supporting documents submitted by respondents. Where needed, countries were contacted to clarify discrepancies. Countries were requested to share copies of documents reported in the survey. Univariate analysis was conducted to explore the frequency distribution of responses. Categorical variables were presented in proportions, percentages, or frequencies. In this assessment, maps, tables, and figures are used to present the findings.

2.3 Stakeholder consultation

The final step in the regional assessment consisted of a two-day technical meeting. The main purpose of that meeting was to validate the results of the preliminary assessment, engage stakeholders in a regional dialogue about the current status of school health and HPS implementation in the LAC Region, and to articulate recommendations for strengthening school health and HPS in the Region. Meeting participants included youth, regional partners, and representatives from the ministries of health and education from selected countries.

2.4 Ethical considerations and limitations

Prior to implementation, the assessment protocol was submitted to the PAHO Ethical Review Committee for approval. The assessment reflects the situation as of 2017–2018; limitations include the completeness of information provided by key informants on the country level. Additionally, attrition of any key government post can affect institutional memory, which may have influenced the information provided.

3

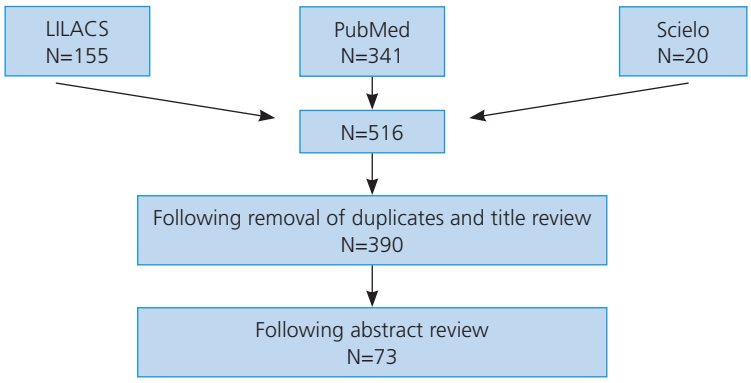
Results

3.1 Desk review

3.1.1 Scoping review

A total of 516 articles were identified for possible inclusion; the number was reduced to 390 after removing duplicates and title review, and reduced to 73 after abstract review (see Figure 1).

FIGURE 1 **Scoping review flow chart**



Annex 2 summarizes the key content of the 73 articles according to the countries and components mentioned. The following paragraphs provide a synthesis of the results.

To ensure that relevant articles were captured, separate searches were conducted using the search terms "school health," "healthy schools," and "health-promoting schools." Notably, however, searches with the term "health-promoting schools" generated no results for Caribbean countries and generated only about half of the articles that were ultimately found for Latin American countries. This discrepancy may suggest that the term "health-promoting schools" is less familiar or less often used in the countries of the Caribbean than in Latin America, and that in Latin America "school health," "healthy schools," and "health-promoting schools" are all used in practice.

Included in the review: articles reporting on studies related to a school health intervention and articles evaluating or reflecting on school health interventions and programs.

Excluded from the review: articles that reported on multi-country studies but that did not provide country-specific information, and articles reporting on studies conducted in the school population but unrelated to a school health intervention. (The large number of articles in this last category illustrates that a school population—which provides a captive audience for studies related to school-aged children—is very attractive.)

The 73 reviewed articles presented information from 21 countries and territories. The review generated a preponderance of articles from Brazil, Chile, Colombia, and Ecuador. There was, however, sufficient material from other countries to provide a general regional overview of peer-reviewed information on school health and HPS activities in LAC.

A set of articles (*28*–*38*) presented overall reviews, evaluations of and reflections on school health programs and approaches, and implementation of the HPS approach; these were useful for extracting lessons learned from a regional perspective. A supportive policy environment for school health and HPS was emphasized by various authors, including a review by Salinas and del Vio (*28*) of the implementation of the school health program, Vida Chile. The authors concluded that after this nationally accredited program was canceled, a variety of unspecified actions were implemented with limited results. The authors also concluded that both a recognized authority and a coordinating mechanism are essential to effectively implement a coherent school health promotion policy (*28*). Among the lessons learned from implementation of HPS in Buenos Aires, Argentina: the local community and context play an essential role in the articulation of school health program priorities and interventions. Also, it is necessary to reflect on and accommodate differences between sub-groups in the same communities (*29*). Various papers emphasized the importance of stakeholder ownership and participation and ensuring the building of agency and autonomy in communities, families, and students. From a governance perspective, various authors also emphasized the critical importance of policy to support, guide, and enforce school health actions, and the benefit of having a clearly defined entity

that is responsible for implementation. Intersectoral articulation and collaboration, particularly between health and education, was also emphasized as an essential element for success; the importance of training and supporting teachers was also emphasized.

The remaining articles (*30–100*) presented reports on implementing school-based interventions of varying scopes that address a range of health topics. Some articles presented simple evaluations of the interventions, while others presented studies with more rigorous designs, including quasi-experimental designs with intervention and control groups. The duration of the interventions ranged from brief (days or weeks) to longer-term (multiple years). The target populations were mostly primary and secondary school students; the scope varied widely, ranging from one or two schools to district-wide. From the information presented, it was often difficult to assess whether the interventions were implemented in the context of a larger school health intervention or HPS approach, and whether they continued after the studies were completed.

The HPS elements most frequently included in the articles are health education and curriculum, as the majority of interventions consisted of health information or education presented to students in the classroom, and in some instances in after-school activities for students, parents, and communities. The second most frequently addressed element was a healthy and safe learning environment—for instance, changes in the nutritional options in the school cafeteria or vicinity, or improvements in school facilities, providing increased opportunities for physical activity. Student and community participation and access to health services were less frequently mentioned, but when they were mentioned, they were considered critical.

The majority of studies focused on a single health topic. They included substance use, bullying, HIV, water consumption, oral health, ocular health, diabetes, asthma, nutrition, dengue, schistosomiasis, sexual health, mental health, and dating violence. Several articles reported on more multidimensional interventions addressing healthy habits, most frequently healthy eating and physical activity. In most studies, the topics appeared to have been chosen by the researchers; however, a few studies mentioned that the top-priority topics were evidence-informed and selected in partnership with local stakeholders.

The results and lessons learned presented in the reviewed papers were predominantly positive. Notably, most studies reported on immediate or short-term results of interventions, such as improved skills and knowledge, and very few reported on how interventions affected the level of health outcomes. Studies that reported on the feasibility of interventions commented on the cost-effectiveness of school-based interventions and on the suitability of the school environment to positively influence the health of students, teachers, and the wider community.

3.1.2 Review of country legislation, policies, strategies, and plans

As presented in Table 2, school health governance documents were identified for 44 countries and territories in the Americas. Of these, just 17 (39%) of the countries and territories had dedicated school

health legislation and/or policies; the remaining 27 had other, usually broader legislation and/or policies that explicitly mentioned school health. The school health-related legislation and policies included laws, bills, acts, presidential and ministerial decrees or resolutions, and formal policy documents. About a third of the countries had legislation and policies dated from before the year 2000, another third from the period 2000–2010, and the remaining from the period 2011–2018.

Typically, the school health legislative and policy documents articulated a vision and goal, reiterating the right to and importance of children's health, and the important role that schools have in maintaining and promoting students' health. The documents also specified key implementation responsibilities. In the vast majority of cases, that implementation is to be shared with the ministries of health and education; in some cases, it is shared with other partners, such as the ministry of social protection; and in a few cases, it is shared with designated school health institutes, such as the Programa Sanidad Escolar (PROSANE) in Argentina and INABIE (Instituto Nacional de Bienestar Estudiantil) in the Dominican Republic.

Several countries have adopted school health policies that address one or more specific topics, such as Dominica's and Haiti's school nutrition policies and Guyana's public health immunization act. Country legislation and policies that were not specific school health policies but included or referred to school health include national child and youth policies, education policies, physical education and health policies, health promotion policies, sexual and reproductive health policies, and family planning policies.

TABLE 2 **School health legislation, policies, strategies, and plans by country or territory**

COUNTRY/TERRITORY	SCHOOL HEALTH LEGISLATION AND/OR POLICY	SCHOOL HEALTH/HPS STRATEGY OR PLAN
Caribbean		
1 Anguilla		
2 Antigua and Barbuda		
3 Aruba		
4 Bahamas		
5 Barbados		
6 Belize		
7 Bermuda		
8 British Virgin Islands		
9 Cayman Islands		
10 Cuba		

COUNTRY/TERRITORY	SCHOOL HEALTH LEGISLATION AND/OR POLICY	SCHOOL HEALTH/HPS STRATEGY OR PLAN
11 Curaçao		
12 Dominica		
13 Dominican Republic		
14 Dutch Caribbean municipalities (Bonaire, Saba, Sint Eustatius)		
15 French Territories (French Guiana, Guadeloupe, Martinique)		
16 Grenada		
17 Guiana		
18 Haiti		
19 Jamaica		
20 Montserrat		
21 Saint Kitts and Nevis		
22 Saint Lucia		
23 Saint Vincent and the Grenadines		
24 Sint Maarten		
25 Suriname		
26 Trinidad and Tobago		
27 Turks and Caicos Islands		
Central America		
28 Costa Rica		
29 El Salvador		
30 Guatemala		
31 Honduras		
32 Nicaragua		
33 Panama		
South America		
34 Argentina		
35 Bolivia (Plurinational State of)		
36 Brazil		
37 Chile		
38 Colombia		
39 Ecuador		
40 Paraguay		
41 Peru		
42 Uruguay		
43 Venezuela (Bolivarian Republic of)		

COUNTRY/TERRITORY	SCHOOL HEALTH LEGISLATION AND/OR POLICY	SCHOOL HEALTH/HPS STRATEGY OR PLAN
North America		
44 Mexico		

Countries/territories with dedicated school health legislation, policies, strategies, plans
Countries/territories with school health included in other legislation, policies, strategies, plans
No information

As presented in Table 2, 41 countries and territories had operational school health programs, albeit at varying degrees. In total, the literature review found designated school health strategies or plans for 20 countries and territories (49%) of those in the literature review. These included 15 countries with designated school health legislation and policies and five without. The remaining countries had school health activities incorporated into other strategies and plans. For instance, Aruba, Bermuda, and Suriname had plans for reducing overweight and obesity; Sint Maarten had a national mental health plan; the British Virgin Islands had national health and safety school strategies; and several countries included school-level activities in their HIV strategies and plans. These results underline the important role of policy, as countries with defined school health legislation and policies were more likely to have a strategy or plan for implementing school health programs.

As a next step, all school health legislation, policies, strategies, and plans identified through the dedicated desk review were reviewed for five school health components:

a. Governance of school health programs – specifically, whether they defined and assigned implementation responsibilities, and if so, to whom.

b. Health education and curriculum – specifically, whether they mentioned a structural, curriculum-based approach to health education.

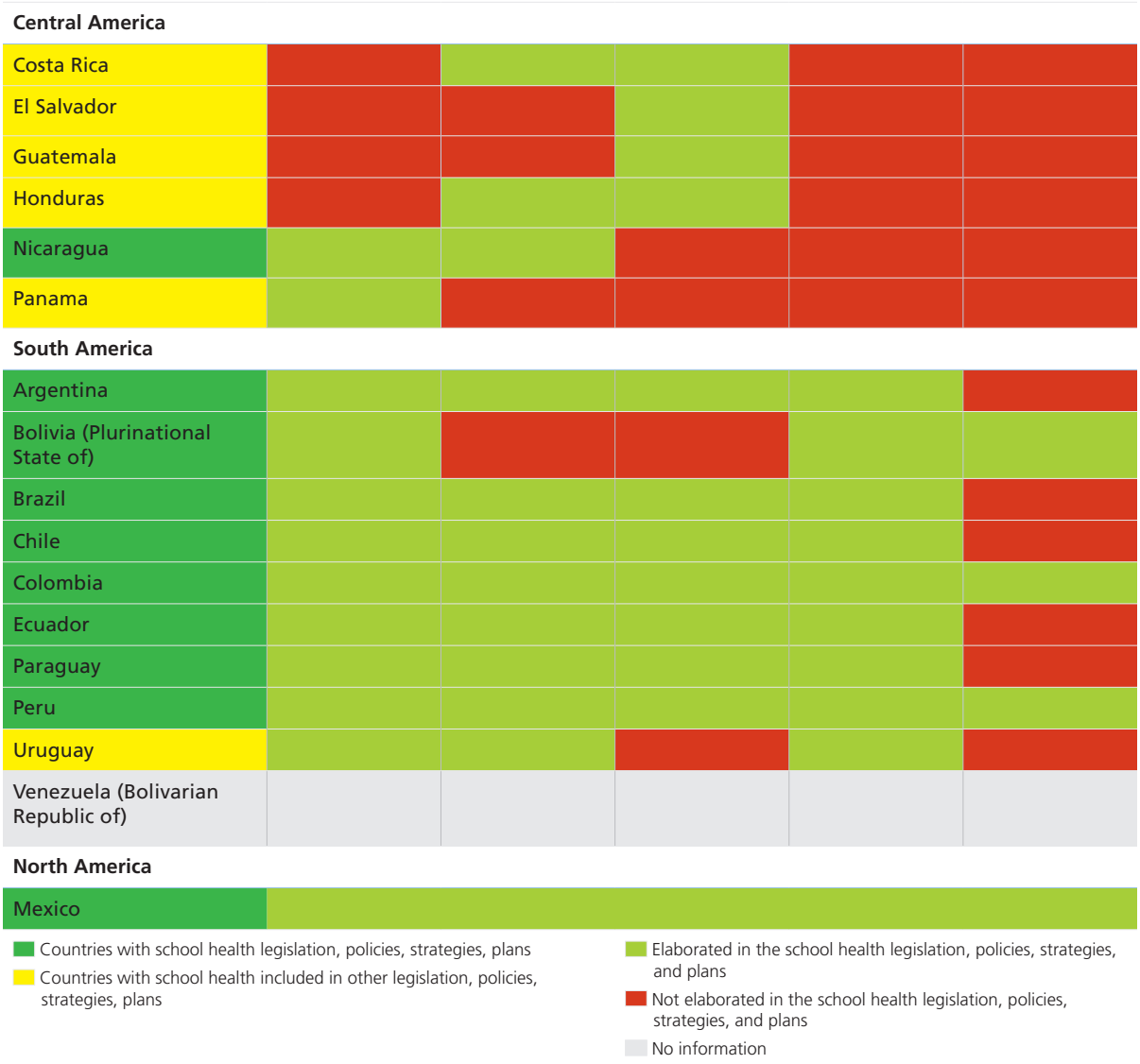
c. Healthy and safe learning environment – specifically, whether a healthy and safe learning environment for students and faculty was acknowledged as important.

d. Student and community participation – specifically, whether participation of students, parents, and communities was called for.

e. Access to health services – specifically, whether there was mention of the importance of linking to health services and increasing students' access, and if so, using which methods.

TABLE 3 **Components addressed in the school health legislation, policies, strategies, and plans by country or territory**

COUNTRY/TERRITORY	GOVERNANCE OF SCHOOL HEALTH PROGRAMS	HEALTH EDUCATION AND CURRICULUM	HEALTHY AND SAFE LEARNING ENVIRONMENT	STUDENT AND COMMUNITY PARTICIPATION	ACCESS TO HEALTH SERVICES
Caribbean					
Anguilla					
Antigua and Barbuda					
Aruba					
Bahamas					
Barbados					
Belize					
Bermuda					
British Virgin Islands					
Cayman Islands					
Cuba					
Curaçao					
Dominica					
Dominican Republic					
Dutch Caribbean municipalities (Bonaire, Saba, Sint Eustatius)					
French Territories (French Guiana, Guadeloupe, Martinique)					
Grenada					
Guyana					
Haiti					
Jamaica					
Montserrat					
Saint Kitts and Nevis					
Saint Lucia					
Saint Vincent and the Grenadines					
Sint Maarten					
Suriname					
Trinidad and Tobago					
Turks and Caicos Islands					



As presented in Table 3, all five components were found in the policies, strategies, and plans of only five countries (Colombia, Cuba, Dominican Republic, Mexico, and Peru). Twelve more countries addressed three or four of the components; the majority of these were countries with school health legislation or policies. In general, the component most frequently included was a healthy and safe learning environment. While the international school health frameworks define a healthy and safe learning environment as both a physical and psychosocial environment, most of the policies, strategies, and plans referred to a physically safe environment—in particular, to water and sanitation issues. It also appears that countries in South America and Mexico have more comprehensive school health policies than countries in Central America and the Caribbean.

3.2 Country assessments

Through the PAHO country offices, 35 PAHO Member States in LAC were invited to participate in the country assessments; 18 accepted the invitation, a response rate of 51%. In informal follow-up, Member States that declined to participate provided the following reasons: a) recent government change; b) limited staffing to allocate to the assessment, and c) absence of an articulated school health program in the country.

A total of 18 countries, including three pilot countries, completed national assessments. Following the validation, the three pilot countries were given the opportunity to revise their assessment results and provide additional information, as needed. Because the school-level survey was completed by only three countries, it was decided to exclude that survey from the data analysis and report.

As presented in Table 4, nine (50%) of the participating countries were from the Caribbean. Nevertheless, the participating countries reflected a variety of contexts in the three LAC subregions.

TABLE 4 **Countries and territories that completed the school health survey, by subregion**

CENTRAL AMERICA	SOUTH AMERICA	CARIBBEAN
Honduras	Argentina	Antigua and Barbuda
Mexico	Bolivia (Plurinational State of)	Barbados
Panama	Brazil	Belize
	Colombia	British Virgin Islands
	Paraguay	Dominican Republic
	Peru	Guyana
		Haiti
		Suriname
		Trinidad and Tobago

3.2.1 School health policies, strategies, and plans

Existence and scope of school health policies, strategies, and plans

The survey responses corroborated the results from the desk review and provided more specificity. From the 18 countries that completed the national school health survey, eight reported having a current national school health policy, strategy, and/or plan; one reported having an expired national

school policy; one reported having a draft school health policy; four reported having school health as a dedicated section in a broader policy, strategy, or plan; and the remaining four reported not having a school health policy, strategy, or plan at the time of the assessment but reported that school health was mentioned in other policies, strategies, or plans (Figure 2).

Nine of the 14 countries with a school health policy, strategy, or plan (either dedicated, expired, a draft, or a dedicated section in another policy) indicated that these governance tools applied to both public and private schools. The remaining four countries (Bolivia [Plurinational State of], Brazil, Guyana, and Panama) indicated that they only applied to the public schools.

In response to questions about how these policies, strategies, and plans were developed, Panama and Paraguay reported using existing data on the health situation of school-aged children to establish priorities; two countries (Brazil and Haiti) reported conducting stakeholder consultations; and seven countries (Argentina, Bolivia [Plurinational State of], Colombia, Dominican Republic, Guyana, Honduras, and Mexico) reported conducting situation analyses as well as stakeholder consultations. Box 1 provides some details on the school health program in Brazil and Box 2 on the program in Argentina.

BOX 1 The School Health Program in Brazil – the Programa Saude na Escola (PSE)

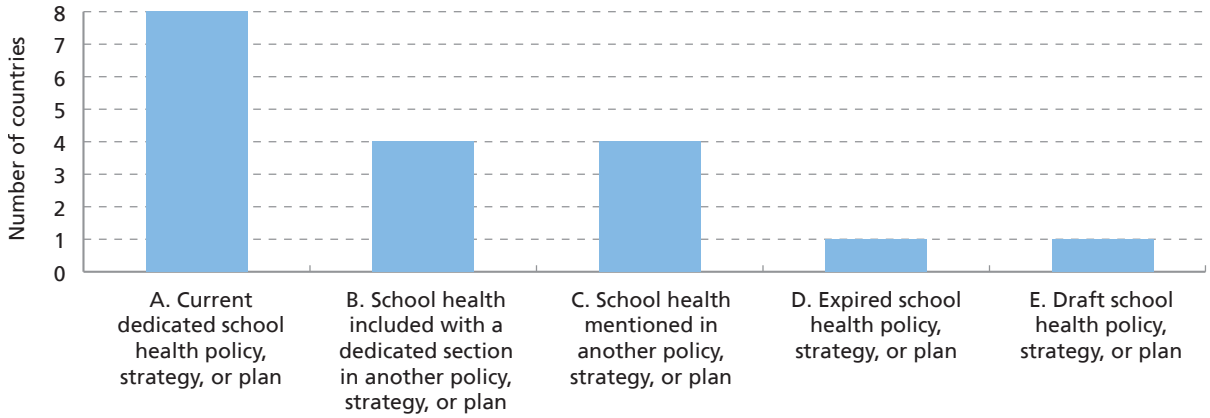
The intersectoral health and education policy guiding the PSE was developed in 2007 with a limited number of municipalities and is now implemented on the state, provincial, and municipal level; all municipalities in a country are eligible to join and participate. The program was conceived as a strategy for fostering citizenship and developing healthy children and adolescents. It articulates priority actions to be taken by the health and education sector as well as relationships between the sectors, and includes preschools and day care centers. Participation in the PSE requires establishing an intersectoral working group for joint stakeholder planning, execution, monitoring, and evaluation. Working group members of PSE must include the ministries of health and education and encourage the inclusion of stakeholders who represent public policies and social movements—stakeholders representing culture, leisure, sports, transportation, urban planning, NGOs, and civil society.

Sources:

Brasil EGM, Silva RMD, Silva MRFD, Rodrigues DP, Queiroz MVO. Adolescent health promotion and the School Health Program: complexity in the articulation of health and education. Promoção da saúde de adolescentes e Programa Saúde na Escola: complexidade na articulação saúde e educação. Rev Esc Enferm USP. 2017;51:e03276. doi:10.1590/s1980-220x2016039303276

Monteiro PH, Bizzo N. A saúde na escola: análise dos documentos de referência nos quarenta anos de obrigatoriedade dos programas de saúde, 1971–2011 [Health in school: an examination of the reference documents for the forty years of compulsory health programs, 1971–2011]. Hist Cienc Saude Manguinhos. 2015;22(2):411-428. doi:10.1590/S0104-59702014005000028

FIGURE 2 **The status of school health policies, strategies, and plans in participating countries**



A: Argentina, Brazil, Dominican Republic, Haiti, Honduras, Mexico, Panama, Paraguay

B: Barbados, Bolivia (Plurinational State of), Colombia, Guyana

C: Antigua and Barbuda, Belize, British Virgin Islands, Suriname

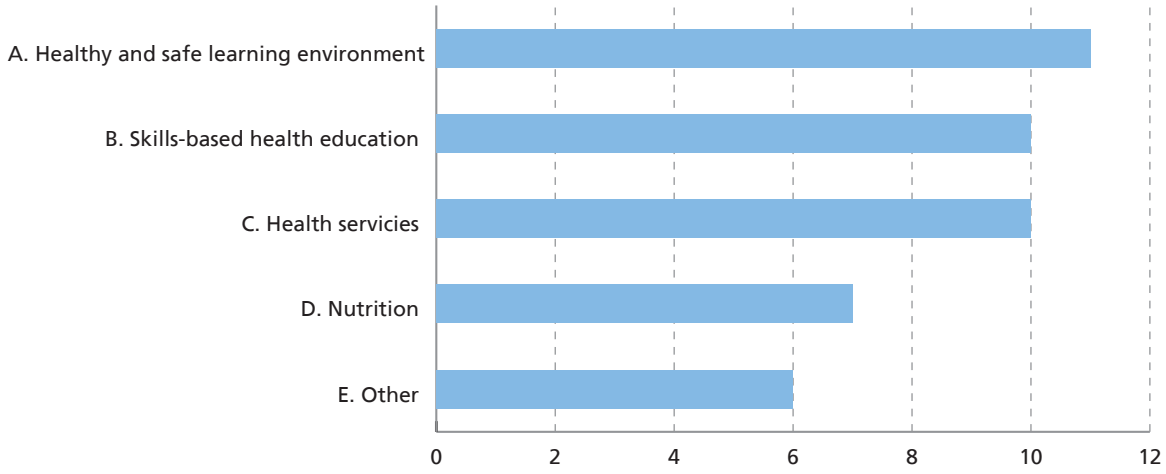
D: Peru

E: Trinidad and Tobago

Ten of the countries with school health policies, strategies, or plans indicated that these documents had not been widely disseminated and were therefore probably not available at the district or school level.

Participants were asked which topics were included in the school health policy, strategy, or plan. The most frequently mentioned topics: healthy and safe learning environments, skills-based health education, and health services. The next most frequently named topics: skills-based health education and nutrition. Other topics mentioned were social participation, student empowerment, and peaceful coexistence (Figure 3).

FIGURE 3 Topics addressed in school health policies, strategies, and plans



A: Argentina, Barbados, Bolivia (Plurinational State of), Colombia, Dominican Republic, Guyana, Haiti, Honduras, Mexico, Panama, Paraguay.
B: Argentina, Barbados, Bolivia (Plurinational State of), Colombia, Dominican Republic, Guyana, Haiti, Mexico, Panama, Paraguay.
C: Argentina, Barbados, Bolivia (Plurinational State of), Brazil, Colombia, Dominican Republic, Guyana, Haiti, Mexico, Panama.
D: Argentina, Brazil, Dominican Republic, Haiti, Mexico, Panama, Paraguay.
E: Bolivia (Plurinational State of), Brazil, Colombia, Mexico, Panama, Paraguay.

BOX 2 The national school health program in Argentina – PROSANE

The "Programa Nacional de Salud Escolar" (PROSANE) is coordinated by the national directorate of maternity, children, and adolescents at the Ministry of Health and Social Development. The national program was created in 2008 through Resolution # 439/2008. Because the country is of a federal nature, the program's implementation depends on local regulations. Its mission is to develop and strengthen integrated care policies between health and education, actively respond to the health needs of school-age children and adolescents, promote actions and polices that prevent disease and promote health, and strengthen the articulation between the country's Ministry of Health and its Ministry of Education.

At least 19 provinces have developed corresponding provincial regulations to support implementation of PROSANE, which was conceived as a primary health care strategy where teams that provide first-level care help identify and implement priority actions in schools. The program works closely with relevant national and provincial programs, including the adolescent health program, the national comprehensive sexual education program, and the national program for education and prevention of drug use. It is estimated that each year PROSANE reaches more than 200,000 children and adolescents in more than 2,500 schools across Argentina.

Source: Codarini G, Andracchio M, Viggiani F, González P, Lev D. Programa Nacional de Salud Escolar: una política de cuidado de niñas, niños y adolescentes en edad escolar de Argentina. Rev Argentina Salud Publica. 2018;9(35):38-41. Available from: https://rasp.msal.gov.ar/index.php/rasp/article/view/560

3.2.2 Planning, coordination, supervision, implementation, and budgeting

Sixteen countries responded to the questions regarding coordination, supervision, and implementation of school health actions. The arrangement most frequently reported is shared, coordinated responsibility between the countries' ministries of health and education (10 countries). One country (Barbados) listed its ministry of health as the lead responsible agency; two countries (Guyana, Antigua and Barbuda) listed their ministries of education. One country (Peru) indicated that school health activities are independently determined by the health and education sector, with each sector responsible for coordinating and implementing their activities. One country (Bolivia [Plurinational State of]) identified its municipal authorities as the entities responsible for planning, coordinating, and supervising school health activities. Another country (Belize) cited an inter-ministerial mechanism that coordinates school health action.

Five countries reported they had a formal mechanism for coordinating school health activities, i.e., the ministries of health and education; four of those countries also included other government partners, and two countries mentioned NGOs and UN partners as members of the school health coordinating mechanism.

Planning and budgeting for school health activities occurs either exclusively on the national level (six countries) or primarily on the national level, with limited planning and budgeting on the local level (seven countries); occasionally it is shared equally between the national and local levels (three countries).

When it comes to implementation, 17 countries confirmed that they are implementing school health activities; 10 countries indicated they are implementing HPS strategies, and 7 Caribbean countries reported that their main focus for school health is HFLE (Box 3). One remaining country, Suriname, indicated that it is not currently implementing regular school health actions.

The most frequently reported target group for school health actions were children ages 5–12. When asked about coverage, nine countries confirmed they had a national register or mechanism to track school-level implementation of school health activities.

BOX 3 Health and family life education (HFLE)

HFLE is classroom education that seeks to empower children and young people by imparting knowledge and skills necessary for healthy living and prepare them to cope effectively with life's many challenges. The expectation is that a combination of life skills, knowledge about health, and a supportive environment will enhance young people's potential to become healthy, productive, contributing citizens.

In 1994, the Caribbean Community (CARICOM) Standing Committee of Ministers of Education passed a resolution supporting the development of a comprehensive approach to Health and Family Life Education (HFLE) by CARICOM and the University of the West Indies (UWI). The commitment gave rise to the CARICOM/UN Multiagency Health and Family Life Education (HFLE) Project which was endorsed in 1996 by the Standing Conferences of Ministers of Health and Ministers of Education.

The HFLE curriculum focuses primarily on five core areas or themes: 1) health and human life; 2) developing oneself and developing interpersonal relationships; 3) appropriate eating and fitness; 4) managing human sexuality, and 5) managing the environment.

HFLE has been adopted and implemented in most Caribbean countries and territories at various scales and continues to be a health and education priority for CARICOM.

Sources: PAHO & CARICOM. Preparing teachers to implement HFLE in schools of the Caribbean Community (CARICOM). https://caricom.org/documents/11871-revised_curriculum_guide_for_caribbean_teachers.pdf

UNESCO/ECD, UNICEF, CARICOM. Health and Family Life Education. Regional curriculum framework for ages 9–14. http://www.hhd.org/sites/hhd.org/files/HFLE%20Curriculum%20Framework_Merged.pdf

All responding teams were asked to report on the coverage of their school health activities, either based on their registry or their best estimate. The results are presented in Table 5.

TABLE 5 Coverage of school health activities by country/territory and student age group

AGE/COUNTRY	5–8 YEARS	9–12 YEARS	13–15 YEARS	16–18 YEARS	> 18 YEARS
Antigua and Barbuda	76–100%	76–100%	51–75%	< 25%	< 25%
Argentina	26–50%	26–50%	26–50%	26–50%	< 25%
Barbados	76–100%	76–100%	76–100%	76–100%	< 25%
Belize	76–100%	76–100%	76–100%	Don't know	Don't know
Brazil	Don't know	Don't know	Don't know	Don't know	Don't know
British Virgin Islands	26–50%	26–50%	51–75%	51–75%	51–75%
Bolivia (Plurinational State of)	76–100%	76–100%	76–100%	76–100%	Don't know
Colombia	Don't know	Don't know	Don't know	Don't know	Don't know
Dominican Republic	Don't know	Don't know	Don't know	Don't know	Don't know
Guyana	51–75%	51–75%	51–75%	51–75%	51–75%
Haiti	Don't know	Don't know	Don't know	Don't know	Don't know
Honduras	26–50%	26–50%	< 25%	< 25%	< 25%
Mexico	51–75%	51–75%	26–50%	< 25%	< 25%
Panama	26–50%	26–50%	0%	0%	0%
Paraguay	< 25%	< 25%	< 25%	0%	0%
Peru	< 25%	< 25%	< 25%	0%	0%
Trinidad and Tobago	< 25%	< 25%	< 25%	< 25%	0%

Countries with registration systems
Countries without registration systems

The data presented in Table 5 indicates low to average coverage of school health activities in several countries. Antigua and Barbuda, Barbados, Belize, and Bolivia (Plurinational State of) stand out as reporting coverage of over 75% in the age group 5-15 years.

Key challenges mentioned by countries regarding implementation of school health policies, programs, and services:

1. Lack of political will and low prioritization of school health.
2. Limited understanding and appreciation of the usefulness of school health actions.
3. Lack of a legal basis to ensure that policies and programs will have continuity.

4. Lack of designated and secure funding to implement school health programs and activities, especially in remote areas.
5. Lack of adequate infrastructure for implementation of school health activities, particularly in rural areas.
6. Insufficient coordination and partnership between different stakeholders interested in the topic, and at times potential conflict of interest.
7. Initiatives do not trickle down to the local levels, particularly to remote areas.
8. Lack of systems that ensure quality and timely data to evaluate school health initiatives.
9. Limited human resources to dedicate to school health activities.
10. Lack of school health training opportunities for health and education human resources.

3.2.3 Healthy and safe learning environment

Survey questions related to a healthy and safe learning environment focused on 24 topics that can be divided into five broad areas (Table 6).

TABLE 6 **Healthy and safe learning environment components assessed in the survey**

PHYSICAL ENVIRONMENT	SUPPORTIVE ENVIRONMENT	PROTECTION FROM HARM	PREVENTION OF RISK BEHAVIORS	PARTICIPATION
Drinking water quality	Gender equality	Bullying prevention	Tobacco use prevention	Parent and family participation
Sanitation	Non-discrimination	Violence prevention	Alcohol use prevention	Community involvement
Safety of buildings	Classroom management	Use of positive discipline methods	Illegal drug use prevention	
Physical accessibility (disability)	Cultural diversity	Injury prevention and safety	Hygiene	
Waste management	Faculty and staff health promotion	Emergency and natural disaster preparedness	Nutrition/dining and/or food kiosks	
Spaces for sports and physical activity				
Protection from (road) traffic				

The survey asked countries a) whether they had national standards to guide schools on these topics, b) whether they had procedures to formally assess if schools met the standards, and c) to estimate the percentage of schools that met the standards. Countries that said national standards were in place were asked to share the standards documents for review.

As illustrated in Annex 3, most countries reported the existence of national standards on the 24 topics. However, only a few countries provided documentation required to verify the existence and contents of those standards, and reviews of that documentation indicate that the standards were mostly generic principles and guidance contained in laws, policies, and plans related to a specific topic—for instance, principles on gender equality in the national gender policy, national nutrition guidelines, etc. Very few standards specific to a school context were found.

Examples of school-specific standards shared during the assessment include national and subnational standards pertaining to school food programs, including restrictions on food with high sugar and fat content, menus, portion sizes, storage, sanitation, equipment, and building and infrastructure.

Of the 17 countries responding to the question about the existence of a mechanism for formal assessment of standards, 10 (59%) confirmed the existence of such a mechanism, five indicated there is no mechanism, and two did not know. Overall, the responses and the review of country documents did not provide an impression of clear, school-specific and measurable standards on key subjects, suggesting that education systems and schools may construct actions in the absence of standardized and evidence-based guidance.

3.2.4 Skills-based health education

For this component, the survey asked about recent policies or standards (developed in the two years preceding the survey) related to a) time requirements for health education; b) certification or accreditation standards for health-promoting schools; c) professional development or continuing education programs on health education; d) instructional content on priority topics; and e) incentives for schools and teachers to provide skills-based education.

As shown in Table 7, nine countries reported having recently developed or revised the time requirements for health education, and eight countries had made those changes for professional development or continuing education programs for health education. In addition, six countries reported having recently developed or revised the standards for certification or accreditation of health-promoting schools.

TABLE 7 **Recent development or revision of time requirements for health education, certification or accreditation of HPS, and professional development by country**

	NUMBER OF COUNTRIES	COUNTRIES REPORTING RECENT DEVELOPMENT OR REVISION
Time requirements for health education for children ages 5–8	9	Barbados, Belize, Dominican Republic, Haiti, Honduras, Mexico, Panama, Peru, Trinidad and Tobago
Time requirements for school health education for children and adolescents ages 9–12	9	Barbados, Belize, Dominican Republic, Haiti, Honduras, Mexico, Panama, Peru, Trinidad and Tobago
Time requirements for school health education for adolescents ages 13–15	9	Barbados, Belize, Dominican Republic, Haiti, Honduras, Mexico, Panama, Peru, Trinidad and Tobago
Time requirements for school health education for adolescents ages 16–18	9	Belize, Dominican Republic, Haiti, Honduras, Mexico, Panama, Peru, Trinidad and Tobago
Time requirements for school health education for adolescents and young people older than 18	3	Haiti, Mexico, Peru
Certification or accreditation standards (or the equivalent) for health-promoting schools	6	Belize, Haiti, Mexico, Panama, Paraguay, Trinidad and Tobago
Professional development or continuing education programs on health education	8	Argentina, Barbados, Belize, Bolivia (Plurinational State of), Dominican Republic, Honduras, Mexico, Trinidad and Tobago

Annex 4 presents an overview of countries' responses to questions about recent revisions to policies or standards pertaining to the content of instruction for priority health topics. The responses indicate a mixed result: some countries have made recent revisions to the content of all or almost all 24 topics; others have not made revisions to any health education topic.

Finally, countries were asked about the existence and characteristics of incentives to provide skills-based education content in class. Of the 18 participating countries, seven reported having incentives in place, nine reported not providing incentives, and one was not sure.

The incentives mentioned were:

- Certification of schools.
- Recognition of schools; grants for promising intervention models.
- Opportunities for knowledge exchange with peers.
- Sports kits for schools that meet physical activity standards.
- Opportunities for capacity building, training, salary increases, and public recognition.
- Scholarships for specialized training.

3.2.5 Organization and delivery of health services

This section of the survey explored the organization of school health services provision, the target age groups, package, and coverage of services.

As presented in Table 8, the organization of school health services to students varied between and within countries, and includes all four major scenarios included in the survey:

1. School-based health services
2. A distinct structure for school health services, but not based in schools
3. Certain health services offered to pupils in primary health care facilities
4. Certain health services provided by teachers

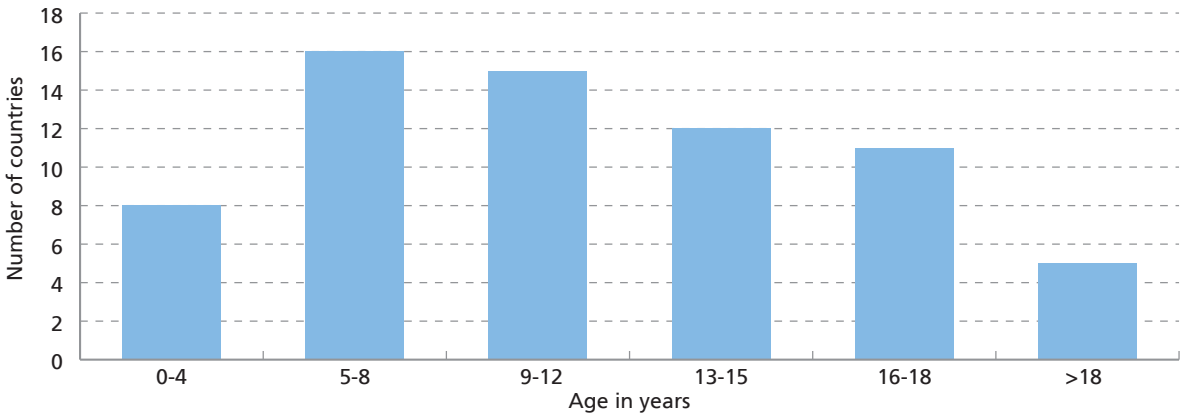
TABLE 8 **Organization of school health services by country**

DESCRIPTION	COUNTRIES
School health services are "school based" (i.e., a school-based health care provider is either on permanent or part-time basis, and there is usually a special room for consultations).	Argentina, Brazil, Dominican Republic, Haiti, Honduras
School health service is a distinct entity/structure in the health system, but school health services personnel are not based in school(s) and they make visits according to existing plans/ schedules.	Antigua and Barbuda, Argentina, Barbados, Belize, Brazil, British Virgin Islands, Colombia, Dominican Republic, Guyana, Suriname, Trinidad and Tobago
Certain health services for pupils are offered by health care provider(s) based in primary health care facilities. (Services are based in primary health care facilities with a clear link between the primary care providers and the school.)	Argentina, Brazil, Colombia, Guyana, Haiti, Mexico, Panama, Peru
Certain school health services are provided by teachers.	Guyana, Honduras
No school health services in the country.	Bolivia (Plurinational State of), Paraguay

Bolivia (Plurinational State of) does not provide school health services and respondents suggested that those services would cover a significant gap in pupils' opportunities to seek care and receive age-appropriate services. In contrast, in Paraguay, where there are also no school health services, respondents indicated that they believe the country's health system and service delivery models provide adequate opportunities for pupils to seek care and receive services; they felt that school health services would not add value to what is already in place.

Seven countries indicated that the school health services system is largely homogenous across the country and that it follows the national structure and regulations. Another seven reported that variations exist due to decentralization and the local autonomy of regions, provinces, or municipalities. The age of students served by school health services also varied across countries. The most frequently reported group is students ages 5-12, followed by the group of students ages 13-15 (Figure 4). Coverage also varies significantly (Figure 5).

FIGURE 4 **Student population, by age group, served by school health services**



0–4 years: Argentina, Barbados, Brazil, Colombia, Dominican Republic, Guyana, Mexico, Peru.

5–8 years: Antigua and Barbuda, Argentina, Barbados, Belize, British Virgin Islands, Brazil, Colombia, Dominican Republic, Guyana, Haiti, Honduras, Panama, Mexico, Peru, Suriname.

9–12 years: Antigua and Barbuda, Argentina, Barbados, Belize, British Virgin Islands, Brazil, Colombia, Dominican Republic, Guyana, Haiti, Honduras, Panama, Mexico, Peru, Suriname.

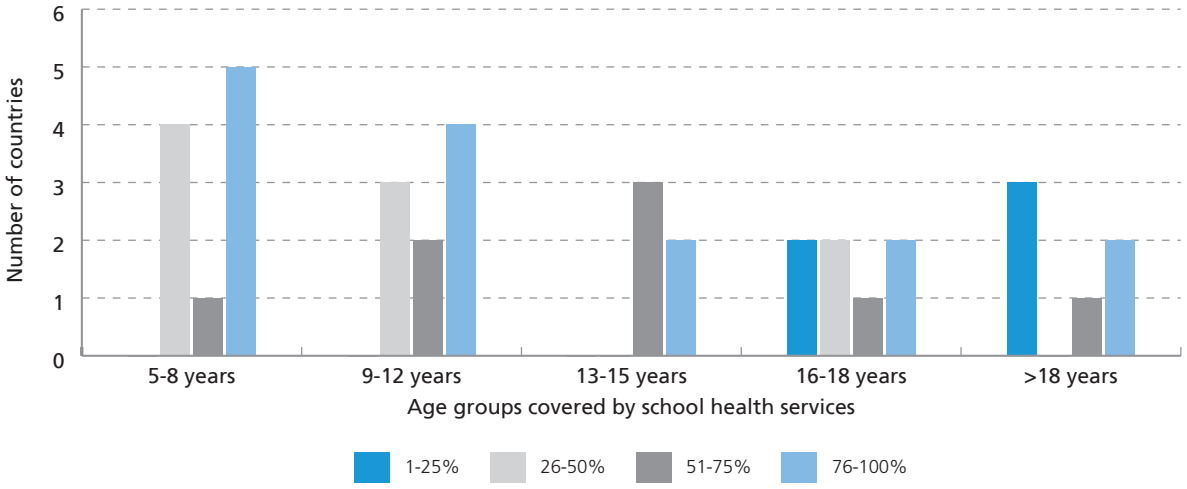
13–15 years: Antigua and Barbuda, Argentina, Barbados, British Virgin Islands, Brazil, Colombia, Dominican Republic, Guyana, Haiti, Honduras, Mexico, Peru.

16–18 years: Antigua and Barbuda, Argentina, Barbados, British Virgin Islands, Brazil, Colombia, Dominican Republic, Guyana, Haiti, Mexico, Peru.

>18 years: Antigua and Barbuda, British Virgin Islands, Colombia, Haiti, Guyana.

The countries reported various mechanisms to cover the cost of school health services: paid by the government, with no cost to students (seven countries); paid by health insurance, parents, or caretakers (three countries); and a combination of different payment mechanisms (six countries). Figure 5 presents the estimated percentage of students, by age group, covered by health services.

FIGURE 5 **Estimated percentage of students covered by health services, by age group**



The health teams that are based at or linked to schools consist of school nurses (six countries), physical education officers (six countries), dentists (five countries), psychologists (four countries), health assistants (three countries), social workers (three countries), physicians (two countries), and nutrition specialists (one country).

In total, nine countries responded to the questions related to provider–pupil ratios. Most countries commented that these ratios differ across districts and schools, and that their answers were rough estimates (Table 9).

TABLE 9 **Estimated number of school health personnel per 100 students**

COUNTRIES	NUMBER OF NURSES PER 100 STUDENTS	NUMBER OF DOCTORS PER 100 STUDENTS	NUMBER OF OTHER PROFESSIONALS PER 100 STUDENTS
Antigua and Barbuda	>1	>1	Don't know
Argentina	0.75	0.75	0.75
Barbados	0.1	0.1	Don't know
British Virgin Islands	Less than 1	Don't know	Don't know
Dominican Republic	<1	0.000037	0.3 (psychologist or counselor)
Guyana	4	4	Don't know

COUNTRIES	NUMBER OF NURSES PER 100 STUDENTS	NUMBER OF DOCTORS PER 100 STUDENTS	NUMBER OF OTHER PROFESSIONALS PER 100 STUDENTS
Honduras	0.01	0.08	0.03
Panama	<1	<1	<1
Suriname	0.16	Don't know	Don't know

Three countries indicated that students are in contact with the school health team as often as needed; two countries reported that students are in contact with the health team more than once a year; five countries reported that contact averaged once a year; and four countries reported that the contact averaged less than once a year.

Except for Brazil and Haiti, all participating countries indicated that their school health teams are generally unable to meet students' health care needs due to staff shortages and, more specifically, a shortage of staff trained in school health and in providing health services from a rights and gender-based perspective to adolescents. Only four countries (Belize, Guyana, Haiti, Suriname) reported that training was available for school health personnel.

The most frequently mentioned services included in school health services were vaccinations, health education, sexual health counseling, dental care, and screening. Screening services included vision, hearing, dental, and height and weight. Some countries also listed screening for anxiety, depression, suicide risk, and behavioral and developmental disorders. The least frequently offered screenings were for blood pressure and sexually transmitted infections (STI). Only Argentina includes blood pressure in its school health screening, and Honduras is the only country that includes STI screening (specifically, syphilis testing for students 16 and older). Additionally, a few countries mentioned providing services for students with chronic illnesses; providing care for acute illness or injury; and providing diagnostic services and referrals for additional care.

According to countries' responses, the health teams' activities extend beyond the clinic and include the larger school community, i.e., teachers and parents. Activities mentioned include:

- Health promotion for the group/classroom that includes education about sexuality, tobacco, alcohol, drugs, physical activity, nutrition, and mental health.
- Promotion of a healthy school environment.
- Support for teachers.
- Support and counseling for parents.
- Management and control of infectious disease outbreaks.

- Emergency response.
- Monitoring school facilities for sanitary and hygienic conditions.

3.2.6 Record keeping, monitoring, and evaluation

Eleven countries indicated having a formal responsibility and process for record keeping on school health services provided to students. In addition, six countries (Argentina, Colombia, Dominican Republic, Guyana, Haiti, Peru) conducted a review of the scope and content of their school health services in the five years prior to the survey; two countries (Antigua and Barbuda and Brazil) did likewise between five and 10 years before the survey; and five countries (Barbados, Mexico, Panama, Suriname, and Trinidad and Tobago) did likewise more than 10 years ago.

3.2.7 Country perspectives on school health services

The main challenges countries reported in relation to school health services:

- Lack of standardization of services.
- Unequal access to school health services across the country.
- Shortage of personnel and insufficient involvement of families/caregivers, teachers, and/or communities.
- Inadequate training for school health services staff.
- Lack of funding.

All participating countries except Brazil indicated a need for revising the scope and content of school health services in their countries. Key areas for revision and strengthening include:

Defining and clarifying the most appropriate models and types of services to include in a package of school health services.

Defining and guidance for the composition, job descriptions, and roles of members of the school health team and optimal personnel-to-pupil ratios.

Strengthening the evidence base for the impact of school health services in order to support advocacy and increased investment.

3.3 Stakeholder consultation

In June 2019, PAHO/WHO organized a consensus meeting in collaboration with UNICEF, UNESCO, and the World Bank. The goal of the meeting was to jointly identify critical actions for strengthening school health in the Americas. Objectives:

- Joint review of the status of school health in the Americas, both challenges and achievements.
- Identification and discussion of lessons learned and opportunities for improvement.

- Consensus on regional and country-level strategies and action to strengthen the organization and results of school health in the Americas.

Forty participants attended. They included representatives from WHO, PAHO/WHO, UNICEF, UNESCO, the World Bank, OAS, UNFPA, the World Food Program, FAO, SE-COMISCA, and CARICOM, and representatives from ministries of health and education for various countries (including Colombia, the Dominican Republic, Guyana, Haiti, Honduras, Mexico, and Paraguay), Johns Hopkins University, the Instituto de Programas Interdisciplinarios en Atención Primaria de la Salud (PROINAPSA), and youth leaders.

The meeting agenda included presentations on global, regional, and country-level experiences and developments related to school health and health-promoting schools. During small group work, participants discussed current school health policies; healthy physical environments; health-promoting ethos and culture; school health and nutrition services; participation by parents, students, and community; and governance and financing of school health programs.

The presentations and discussions illustrated the range of school health and HPS actions being implemented by regional partners and the differences in mandate, interest, and approaches from partners related to school health.

In general, stakeholders agreed that the LAC Region has a strong history of school health and HPS, both at the regional and country levels, and suggested that this history and the lessons learned should be analyzed, documented, and shared within the Region and beyond. In this respect, the discussion illustrated marked differences between Latin America and the Caribbean. In Latin America, the experience focused on implementation of HPS. In contrast, in the Caribbean, the terminology HPS has less resonance; the HFLE initiative is considered the flagship Caribbean school health initiative and has been implemented with strong CARICOM involvement and leadership. In addition to promoting an HFLE curriculum and teacher training, various linked initiatives have been developed in the Caribbean, including a school-based initiative on violence prevention, and initiatives for youth participation and school health clubs.

The stakeholders highlighted the importance of better definition, clarification, and alignment of core HPS concepts and dimensions; they felt there is no uniformity between and even within countries in the way the terminology pertaining to school health and HPS was defined, interpreted, and applied.

Another cross-cutting issue discussed during the meeting was the appropriateness of a regional approach to HPS versus a country-driven approach. Participants agreed that a strong regional approach or strategy is essential and requires a component of strong advocacy to foster high level commitment to HPS and facilitate common understanding. The regional strategy should include technical and operational guidance for implementing HPS, help generate evidence about what works, and document

and share good practices and promising examples. The regional strategy should have sufficient flexibility for adaptation to different country contexts. On the country level, the HPS approach must entail formal partnerships between, primarily, the ministries of health and education; it must also include broad-based partnerships with civil society, the private sector, and other relevant partners. The partnerships with the private sector should, at a minimum, focus on reduction of harm (i.e., reducing sugar content in food products served in school), and should ideally be based on principles of social entrepreneurship that engage the private sector to become active partners in creating, implementing, and funding solutions to the main challenges in health and development that affect children and adolescents. Engagement with civil society was proposed as a strategy to better reach vulnerable and under-served groups, and to enhance the accountability of school health programs.

The meeting also provided an opportunity for gathering input from the LAC Region in the early stages of the development of the global HPS standards. This was made possible because of an additional half-day agenda about HPS standards that was facilitated by WHO and UNESCO.

4

Conclusions

This regional assessment on the status of school health and implementation of the HPS approach in LAC benefitted from information generated through various methods, including a desk review of school health policies and legislation, a scoping review of journal articles, a country survey with 18 LAC countries, and a regional stakeholders meeting. This multi-dimensional approach allowed for triangulation and consolidation of findings that led to these conclusions:

- **School health and the HPS are firmly embedded in the fabric of the Region.** The majority of countries have developed legislative and policy instruments related to school health, some specifically dedicated to school health, and others with school health incorporated in wider governance instruments. Countries with dedicated school health legislation and/or policies were most likely to have operational plans for implementing school health programs. The HPS approach has strong resonance in Latin America, more so than in the Caribbean, where HFLE is considered the flagship school health strategy. However, only a little over half of the countries have mechanisms for documenting and monitoring the coverage and results of school health and HPS actions. Limited political will, insufficient funding, and lack of coordination between stakeholders were identified as major challenges in the implementation of school health policies, strategies, and plans. The assessment highlighted the importance of continued efforts to foster a common understanding of core school health and HPS concepts and the importance of a broad policy framework that promotes a culture of school health and considers a wide range of issues. Issues to be considered

should include the placement and location of school buildings and take into account elements such as air quality, sound pollution, traffic, access for students with disabilities, the concentration of vectors (e.g., mosquitos, rats, venomous snakes), and neighborhood problems such as violence and gang territory. Such policies go beyond health and education and include other sectors—for example, public works and public transportation, infrastructure, development, and police. A holistic approach to school health and HPS should consider and try to address the social problems affecting youth, such as family violence and poverty.

- **Governance and financing of school health programs.** The assessment illustrated variations in the governance and financing of school health programs, ranging from national mechanisms and programs with dedicated staff and budget to countries with limited school health initiatives that are mostly dependent on external funds. Even in countries with dedicated school health staff and budget, resources may not be sufficient to cover all needs and may not be distributed effectively enough to reach the entire population. Therefore, an important dimension of the regional and country-level efforts must be the development of costed strategies and plans, allocating national and local resources, and mobilizing additional resources as needed and when feasible. It was emphasized that school health programs must not exclusively be donor-driven, because depending on external resources can contribute to fragmentation. Rather, interests and priorities from donors and external partners must be folded into a comprehensive country strategy or plan.
- **The organization and scope of school health and HPS programs and activities vary widely.** They range from structured, government-funded programs with assigned resources to fragmented, externally funded initiatives of limited duration. The scoping review of peer-reviewed literature indicated a multitude of implementation studies and projects in schools across the Region, addressing a range of topics. Most of these initiatives were of short (a few months) to medium (a few years) duration and usually did not have a national scope, which raises the question of how extensively, beyond the interest of the study, the initiatives improved the health of school children and adolescents. School food programs are probably the most consistent component of school health activities in the Region, providing essential nutrition to children who may be vulnerable to malnutrition, and it was recommended that these programs should serve as important entry points for broader, more comprehensive approaches to school health. Stakeholders emphasized the importance of a healthy physical environment and a health-promoting ethos and culture, and highlighted the importance of proper water and sanitation as essential conditions for every school in addition to elements such as good lighting and appropriate seating arrangements. The importance of a healthy psychosocial environment was highlighted, too; it should include addressing and preventing all forms of emotional and physical violence, including bullying and corporal punishment. It was emphasized that a health promoting ethos and culture can only be established with the full participation of teachers, students, and parents. The assessment underlined that it is important for countries to develop comprehensive national and subnational strategies and plans to which donors, regional partners, and researchers can contribute, rather than having school health efforts be dependent on fragmented external interests. Evidence-based and standard-driven approaches to school health must be strengthened to increase effectiveness of interventions and programs.

- **The organization and package of school health services varies between and within countries.** It includes school-based health services, school-linked health services, and scenarios where teachers provide some services. Activities from school health teams extended beyond the clinic to public health actions in the classroom and support for teachers and parents. Among challenges associated with school health services that participants cited: a lack of supportive and clear legislation and regulation; a shortage of health personnel trained in school health; inadequate funding and standardization of school health services; and the limited involvement of parents and caregivers. Discussions on school health services concentrated on questions about engaging the educational system with health services and the feasibility of countries offering school-based or school-linked health services. Meeting participants agreed upon the importance of health services for the school-age population, and that the form and scope of health services should be determined by the local context.
- **Effective partnerships were identified as a critical challenge and a condition for successful and efficient school health programs.** First and foremost, partnerships with the ministries of health and education are crucial and should extend to encompass the private sector and civil society—including youth-led and youth-serving organizations, regional partners, and other relevant stakeholders. There was strong agreement on the importance of genuine and optimal participation by students, parents, and the community. However, stakeholders raised concerns about the scarcity of effective models for meaningful engagement with students and parents. In this context, it was suggested that digital technology (where the technology and connectivity permit) was a way to facilitate and galvanize student engagement. The youth participants in the consensus meeting expressed strong opinions on the structural elements that discouraged young people from participating on issues that affect their health and development, and they called on stakeholders to intensify efforts to engage students in designing, implementing, and evaluating school health programs and interventions.
- **Regional partners can play an important role in strengthening comprehensive school health approaches through advocacy and by providing technical and implementation guidance and support.** There is a need to better align school health mandates and partners' interests. Organizing the various mandates, interests, and initiatives under the umbrella of HPS would contribute to greater efficiency in using available resources and would improve results, and the partners discussed the possibility of establishing an interagency regional mechanism on HPS, similar to the Inter-American Task Force on NCDs.

This assessment was conducted before the COVID-19 pandemic. The impact of the pandemic has underlined the prominent role and the multiple benefits of the school as an environment for social interaction, play, learning, structure, and protection of children and adolescents. Schools will continue to have an important role in mitigating the indirect consequences of COVID-19 on the health, well-being, and development of children and adolescents during the pandemic and in the recovery phase.

References

1. Viner RM, Ozer EM, Denny S, Marmot M, Resnick M, Fatusi A, et al. Adolescence and the social determinants of health. Lancet. 2012 Apr 28;379(9826):1641-52. Available from: https://pubmed.ncbi.nlm.nih.gov/22538179/

2. United Nations General Assembly (UNGA). Transforming our world: the 2030 Agenda for Sustainable Development [internet]. New York: UNGA; 2015. Available from: http://www.refworld.org/docid/57b6e3e44.html

3. World Health Organization. Health-promoting schools]. Geneva: WHO; 2021. Available from: https://www.who.int/health-topics/health-promoting-schools#tab=tab_1

4. World Health Organization. What is a health-promoting school? Geneva: WHO; 2021. Available from: https://www.who.int/health-topics/health-promoting-schools#tab=tab_1

5. World Health Organization. Health-Promoting School: an effective approach for early action on NCD risk factors. Geneva: WHO; 2017. Available from: https://www.who.int/publications/i/item/health-promoting-school-an-effective-approach-for-early-action-on-ncd-risk-factors

6. World Health Organization. Local action creating health-promoting schools. Geneva: WHO; 2021. Available from: http://www.who.int/school_youth_health/media/en/sch_local_action_en.pdf?ua=

7. World Health Organization. Promoting health through schools: report of a WHO Expert Committee on Comprehensive School Health Education and Promotion.. Geneva: WHO; 1997. Available from: https://apps.who.int/iris/handle/10665/41987

8. World Health Organization. The Ottawa Charter for Health Promotion. Geneva: WHO; 1986. Available from: http://www.who.int/healthpromotion/conferences/previous/ottawa/en/index.html

9. World Health Organization. The Jakarta Declaration: on leading health promotion into the 21st century. Geneva: WHO; 1997. Available from: https://apps.who.int/iris/handle/10665/63698

10. United Nations Educational, Scientific and Cultural Organization. The Dakar Framework for Action: Education for All: meeting our collective commitments (including six regional frameworks for action) [internet]. Paris: UNESCO; 2000. Available from: https://unesdoc.unesco.org/ark:/48223/pf0000121147

11. FRESH Monitoring and Evaluation Coordinating Group (UNESCO, Save the Children, Education International, EDC, UNODC, AIR, World Bank, WHO, UNICEF, PDC). Monitoring and Evaluation Guidance for School Health Programs. Eight Core Indicators to Support FRESH (Focusing Resources on Effective School Health) [internet]. February 2014. Available from: https://healtheducationresources.unesco.org/library/documents/monitoring-and-evaluation-guidance-school-health-programs-eight-core-indicators

12. Lister-Sharp D, Chapman S, Stewart-Brown S, Sowden A. Health-promoting schools and health promotion in schools: two systematic reviews. Health Technol Assess. 1999;3(22):1-209.

13. Langford R, Bonell CP, Jones HE, Pouliou T, Murphy SM, Waters E, et al. The WHO Health-Promoting School framework for improving the health and well-being of students and their academic achievement. Cochrane Database Syst Rev. 2014 Apr 16;(4):CD008958. doi: 10.1002/14651858.CD008958.pub2

14. World Health Organization. Global school health initiatives: Achieving health and education outcomes. Report of a meeting. Bangkok, Thailand, 23–25 November 2015. Geneva: WHO; 2017. Available from: https://apps.who.int/iris/handle/10665/259813.

15. World Health Organization. Global accelerated action for the health of adolescents (AA-HA!) guidance to support country implementation. Geneva: WHO; 2017. Available from: https://www.who.int/publications/i/item/9789241512343

16. World Health Organization and the United Nations Educational, Scientific and Cultural Organization. Making every school a health-promoting school: global standards and indicators for health-promoting schools and systems. Geneva: WHO and UNESCO; 2021. Available from: https://apps.who.int/iris/bitstream/handle/10665/341907/9789240025059-eng.pdf

17. World Health Organization and the United Nations Educational, Scientific and Cultural Organization. Making every school a health-promoting school: implementation guidance [internet]. Geneva: WHO/UNESCO; 2021. Available from: https://apps.who.int/iris/bitstream/handle/10665/341908/9789240025073-eng.pdf

18. World Health Organization. WHO guideline on school health services. Geneva: WHO; 2021. Available from: https://apps.who.int/iris/bitstream/handle/10665/341910/9789240029392-eng.pdf

19. Organization of American States. Second regular meeting of the Inter-American Education Commission, OAS, Washington, D.C.; 18-19 October 2004. The Health-Promoting Schools regional initiative of the Pan American Health Organization [internet]. Washington, D.C.: OAS; 2004. Available from: https://www.oas.org/udse/cie/ingles/web_cic/CIE-II-INF4-ING.doc

20. Pan American Health Organization. Health-promoting schools. Strengthening of the regional initiative. Strategies and lines of action 2003-2012. Washington, D.C.: PAHO; 2003. Available from: http://www.codajic.org/sites/www.codajic.org/files/Escuelas%20promotoras%20de%20salud%20OPS_0.pdf

21. Pan American Health Organization. Plan of action for women's, children's, and adolescents' health 2018–2030. Washington, D.C.: PAHO; 2018. Available from: https://iris.paho.org/handle/10665.2/49211

22. Pan American Health Organization. Strategic plan of the Pan American Health Organization 2020–2025: Equity at the heart of health (Official Document: 359). Washington, D.C.: PAHO; 2020. Available from: https://iris.paho.org/bitstream/handle/10665.2/52473/9789275173619_eng.pdf?sequence=5

23. Pan American Health Organization. Strategy and plan of action on health promotion within the context of the sustainable development goals 2019–2030. Washington, D.C.: PAHO; 2019. Available from: https://iris.paho.org/handle/10665.2/51391

24. World Bank. System Assessment for Better Education Results (SABER) – Preliminary assessment of school health policies in the Caribbean Community (CARICOM) Dominica, Grenada, Guyana, Barbados, St. Lucia and St. Vincent and the Grenadines. Washington, D.C.: World Bank; March 2012.

25. Centers for Disease Control and Prevention. Global School Health Policies and Practices Study (G-SHPPS). Atlanta: CDC; 2021. Available from: https://www.cdc.gov/healthyyouth/data/shpps/index.htm

26. World Health Organization. Global school-based health surveys. Geneva: WHO: 2021. Available from: https://www.who.int/teams/noncommunicable-diseases/surveillance/systems-tools/global-school-based-student-health-survey

27. World Health Organization. Global youth tobacco survey. Geneva: WHO; 2021. Available from: https://www.who.int/tobacco/surveillance/gyts/en/

28. Salinas CJ, Vio del RF. Programas de salud y nutrición sin política de estado: el caso de la promoción de salud escolar en chile. Rev Chil Nutr. 2011;38(2):100-16. https://dx.doi.org/10.4067/S0717-75182011000200001

29. Kornblit AL, Mendes Diz AM, Di Leo, PF, Camarotti AC. Entre la teoría y la práctica: algunas reflexiones en torno al sujeto en el campo de la promoción de la salud. Rev Argent Sociol. 2007;5(8):11-27. Available from: http://www.scielo.org.ar/scielo.php?script=sci_arttext&pid=S1669-32482007000100002&lng=es&tlng=es

30. Codarini G, Andracchio M, Viggiani F, González P, Lev D. (2018). Programa Nacional de Salud Escolar: una política de cuidado de niñas, niños y adolescentes en edad escolar de Argentina. Rev Argent Salud Publica. 2018;9(35):5-6. Available from: http://www.scielo.org.ar/scielo.php?script=sci_arttext&pid=S1853-810X2018000200007&lng=es&tlng=es.

31. Rossi M, Antun M, Casagrande M, Escasany, Ferrari MF, Raele G, et al. Evaluation de la intervencion del programa Mi Escuela Saludable en una cohort de escuelas que ha participado durante 2016–2017. Revista de la Facultad de Ciencias Medicas (Cordoba, Argentina). 2019;76(1):37. doi: 10.31053/1853.0605.v76.n1.22574

32. Brasil EG, Silva RM, Silva MR, Rodrigues DP, Queiroz MVO. Adolescent health promotion and the School Health Program: complexity in the articulation of health and education. Rev Esc Enferm USP. 2017;51:e03276. doi:10.1590/s1980-220x2016039303276

33. Oliveira FPSL, Vargas AMD, Hartz Z, Dias S, Ferreria EFE. Elementary and lower secondary school students' perceptions of the Health at School Programme: a case study in Belo Horizonte, Brazil. Cien Saude Colet. 2018;23(9):2891-98. doi:10.1590/1413-81232018239.16582018

34. Medeiros ER, Pinto ESG, Paiva AC, Nascimento CP, Gonçalves da Cruz Rebouça D, Bezerra e Silva SY. Facilidades e dificuldades na implantação do Programa Saúde na Escola em um município do nordeste do Brasil. Rev Cuid. 2018;9(2):2127-34. doi: 10.15649/cuidarte.v9i2.514

35. Monteiro PH Bizzo N. A saúde na escola: análise dos documentos de referência nos quarenta anos de obrigatoriedade dos programas de saúde, 1971-2011. Hist Cienc Saude Manguinhos. 2015;22(2):411-28. doi:10.1590/S0104-59702014005000028

36. Campos AC, Robledo-Martínez R, Arango-Soler JM, Agudelo-Calderón CA. [Evaluating public policy regarding the concept of healthy schools in Colombia: the formulation phase (1999–2006)]. Rev Salud Publica (Bogota). 2012 Oct;14(5):744-54. Available from: https://pubmed.ncbi.nlm.nih.gov/24652354/

37. Hernandez J. Estrategia escuelas promotoras de la salud en instituciones de basica primaria de Bucaramanga. Revista Salud UIS. 2007:39(3).

38. Carvajal Rodríguez CD. Estrategia metodológica para desarrollar la promoción de la salud en las escuelas cubanas. Revista Cubana de Salud Pública. 2007:33(2).

39. Wang B, Stanton B, Deveaux L, Lunn S, Rolle G, Adderley R, et al. Multi-year school-based implementation and student outcomes of an evidence-based risk reduction intervention. Implement Sci. 2017 Feb 10;12(1):16. doi: 10.1186/s13012-016-0539-7

40. Stanton B. Teachers' patterns of implementation of an evidence-based intervention and their impact on student outcomes: Results from a nationwide dissemination over 24-months follow-up. AIDS Behav. 2015;19:1828–40. Available from: https://doi.org/10.1007/s10461-015-1110-2

41. Wang B, Deveaux L, Knowles V, Koci V, Rolle G, Lunn S, et al. Fidelity of implementation of an evidence-based HIV prevention program among Bahamian sixth grade students. Prev Sci. 2015 Jan;16(1):110-21. doi: 10.1007/s11121-014-0486-y

42. Martin TC, Josiah-Martin JA, Roberts CW, Henry HP. Toward effective school-based substance abuse prevention "breaking the cycle" programme in Antigua and Barbuda. West Indian Med J. 2008;57(4):360-63. Available from: http://search.ebscohost.com.proxygw.wrlc.org/login.aspx?direct=true&db=cmedm&AN=19566016&site=ehost-live

43. Esandi ME, Panizoni E, Schroh JS, Duran L, Koehler G, Jouglard E, et al. Factibilidad de implementar una intervención compleja para prevenir la intimidación entre pares en el ámbito escolar. Rev argent salud pública. 2018;9(34):21-8. Available from: http://www.scielo.org.ar/scielo.php?script=sci_arttext&pid=S1853-810X2018000100004&lng=es&tlng=es

44. Lwegaba A. Field trial to test and evaluate primary tobacco prevention methods in clusters of elementary schools in Barbados. West Indian Med J. 2005 Oct;54(5):283-91.

45. Bechara GM, Castelo BF, Rodrigues AL, Chinnici D, Chaney D, Calliari LEP, et al. "KiDS and Diabetes in Schools" project: Experience with an international educational intervention among parents and school professionals. Pediatr Diabetes. 2018;19(4):756-760. doi:10.1111/pedi.12647

46. Becker D, Edmundo K, Bonatto D, do Nascimento GF, dos Santos Silva C. Problem Solving for Better Health (PSBH) and health-promoting schools: participatory planning and local action in the Rio de Janeiro programme. Promot Educ. 2005;12(3-4):165-6. doi: 10.1177/10253823050120030117

47. Batista MD, Mondini L, Jaime PC. Actions of the School Health Program and school meals in the prevention of childhood overweight: experience in the municipality of Itapevi, São Paulo State, Brazil, 2014. Epidemiol Serv Saude. 2017;26(3):569-78. doi:10.5123/S1679-49742017000300014

48. Souza EF, Soares MD, Santos SF, de Paulo TRS, Brandão MVS, et al. Constructing a logical model in school health: experience on the Lower Amazon Region. Rev Bras Enferm. 2018 May;71(3):1198-202. doi: 10.1590/0034-7167-2016-0389

49. Favre TC, Pereira AP, Beck LC, Galvão AF, Pieri Os. School-based and community-based actions for scaling-up diagnosis and treatment of schistosomiasis toward its elimination in an endemic area of Brazil. Acta Tropica. 2015;149:155-62. doi:10.1016/j.actatropica. 2015.04.024.

50. de Barros MVG, Nahas MV, Hallal PC, de Farias Júnior JC, Florindo AA, de Barros SSH. Effectiveness of a school-based intervention on physical activity for high school students in Brazil: the Saude na Boa project. J Phys Act Health. 2009 Mar;6(2):163-9. doi: 10.1123/jpah.6.2.163

51. Cyrino EG, Pereira ML. [Integration of health into the school curriculum in Botucatu, São Paulo]. Cad Saude Publica. 1999 Nov;15 Suppl 2:39-44. PMID: 10578076

52. Cordeiro KC Gomes NP, Estrela FM, da Silva AF, Magalhães JRF, dos Santos Lírio JG. Strategies by educators within the school setting to prevent and cope with the experience of domestic violence by adolescents. Aquichan. 2019;19(3):e1938. Available from: https://doi.org/10.5294/aqui.2019.19.3.8

53. Paz FM, Texeira VA, Pinto RO, Anderson CD, Fontoura LP, de Castro LC, et al. School health promotion and use of drugs among students in Southern Brazil. Rev Saude Publica. 2018;52:58. doi:10.11606/s1518-8787.2018052000311.

54. Guzmán J, Kessler RC, Squicciarini AM, George M, Baer L, Canenguez KM, et al. Evidence for the effectiveness of a national school-based mental health program in Chile. J Am Acad Child Adolesc Psychiatry. 2015 Oct;54(10):799-807. e1. doi: 10.1016/j.jaac.2015.07.005

55. Kain J, Concha F, Moreno L, Leyton B. School-based obesity prevention intervention in Chilean children: effective in controlling, but not reducing obesity. J Obes. 2014;2014:618293. doi: 10.1155/2014/618293

56. Kain J, Concha F, Salazar G, Leyton B, del Pilar Rodríguez M, Ceballos X, et al. Obesity prevention in preschool and schoolchildren attending public schools from a district of Santiago, Chile: pilot project 2006. Arch Latinoam Nutr. 2009 Jun;59(2):139-46.

57. Morales A, Garcia-Montaño E, Barrios-Ortega C, Niebless-Charris J, Garcia-Roncallo P, Abello-Luque D, et al. Adaptation of an effective school-based sexual health promotion program for youth in Colombia. Soc Sci Med. 2019;222:207-15. doi: 10.1016/j.socscimed.2019.01.011

58. Bustamante G, Andrade MS, Mikesell C, Cullen C, Endara P, Burneo V, et al. "I have the right to feel safe": Evaluation of a school-based child sexual abuse prevention program in Ecuador. Child Abuse Negl. 2019;91:31-40. doi: 10.1016/j.chiabu.2019.02.009

59. Andrade S, Lachat C, Cardon G, Ochoa-Avilés A, Verstraeten R, Van Camp J, et al. Two years of school-based intervention program could improve the physical fitness among Ecuadorian adolescents at health risk: subgroups analysis from a cluster-randomized trial. BMC Pediatr. 2016;16:51. doi: 10.1186/s12887-016-0588-8

60. Andrade S, Lachat C, Ochoa-Aviles A, Verstraeten R, Huybregts L, Roberfroid D, et al. A school-based intervention improves physical fitness in Ecuadorian adolescents: a cluster-randomized controlled trial. Int J Behav Nutr Phys Act. 2014 Dec 10;11:153. doi: 10.1186/s12966-014-0153-5

61. Andrade S, Verloigne M, Cardon G, Kolsteren P, Ochoa-Avilés A, Verstraeten R, et al. School-based intervention on healthy behaviour among Ecuadorian adolescents: effect of a cluster-randomized controlled trial on screen-time. BMC Public Health. 2015;15:942. doi:10.1186/s12889-015-2274-4

62. Kulis SS, Marsiglia FF, Porta M, Arévalo Avalos MR, Ayers SL. Testing the keepin' it REAL Substance Use Prevention Curriculum Among Early Adolescents in Guatemala City. Prev Sci. 2019 May;20(4):532-43. doi: 10.1007/s11121-018-0956-8

63. Eustache E, Gerbasi ME, Severe J, Fils-Aimé JR, Smith Fawzi MC, Raviola GJ, et al. Formative research on a teacher accompaniment model to promote youth mental health in Haiti: Relevance to mental health task-sharing in low-resource school settings. Int J Soc Psychiatry. 2017 Jun;63(4):314-24. doi:10.1177/0020764017700173.

64. Avila Montes GA, Araujo R, Leontsini E, Herrera GO, Cerna EF. [A school program for dengue control in Honduras: from knowledge to action]. Rev Panam Salud Publica. 2012;31(6):518-22. doi: 10.1590/S1020-49892012000600011

65. Sosa-Rubi SG, Saavedra-Avendano B, Piras C, Van Buren SJ, Bautista-Arredondo S. True Love: Effectiveness of a school-based program to reduce dating violence among adolescents in Mexico City. Prev Sci. 2017 Oct;18(7):804-17. doi: 10.1007/s11121-016-0718-4.

66. Gómez SA, Badillo AR. Educación para la salud, desde la teoría de la acción, en educación primaria del Estado de México. Psicología Iberoamericana. 2014;22(2):46-53. doi: 10.48102/pi.v22i2.66

67. Safdie M, Lévesque L, González-Casanova I, Salvo D, Islas A, Hernández-Cordero S, et al. Promoting healthful diet and physical activity in the Mexican school system for the prevention of obesity in children. Salud Publica Mex. 2013;55(Suppl 3):357–73.

68. López-Núñez B, Aleksejūnienė J, Villanueva-Vilchis MD. School-based dental education for improving oral self-care in Mexican elementary school-aged children. Health Promot Pract. 2019 Sep;20(5):684-96. doi: 10.1177/1524839919840342

69. Ríos-Cortázar V, Gasca-García A, Ordóñez AR, Vera ME, Franco-Martínez M, Tolentino-Mayo L. [Reducing childhood obesity through nutrition component of a health-promoting school initiative]. Salud Publica Mex. 2013;55 Suppl 3:431-3. PMID: 24643492

70. Fernandez-Santos DM, Miranda-Diaz C, Figueroa-Cosme WI, Ramon RO, Mayor AM, Rios-Olivares E, et al. Impact of ASUMA Intervention on HIV risk behaviors among Puerto Rican adolescents. Int J Environ Res Public Health. 2016 Jan;13(1):60. doi:10.3390/ijerph13010060

71. Nichols SDS, Francis MP, Dalrymple N. Sustainability of a curriculum-based intervention on dietary behaviours and physical activity among primary school children in Trinidad and Tobago. West Indian Med J. 2014 Jan;63(1):68-77. doi: 10.7727/wimj.2014.011

72. Springer AE, Harrell MB, Martínez Gomensoro L, Fresco MT, Rogers S, Florines M, et al. ¡Activate Ya! Co-learning about school-based tobacco prevention and physical activity promotion in secondary school students in Uruguay. Glob Health Promot. 2020 Jun;27(2):63-73. doi: 10.1177/1757975918813049

73. Escobar-Chaves SL, Shegog R, Moscoso-Alvarez MR, Markham C, Tortolero-Luna G, Peskin M, et al. Cultural tailoring and feasibility assessment of a sexual health middle school curriculum: a pilot test in Puerto Rico. J Sch Health. 2011;81(8):477-84. doi:10.1111/j.1746-1561.2011.00617

74. Brissett D, Griffiths-Irving J. Speak up! Speak out! Building HIV and AIDS awareness among Jamaican school children. West Indian Med J. 2008;57(3):315-320.

75. Guzder J, Paisley V, Robertson-Hickling H, Hickling FW. Promoting resilience in high-risk children in Jamaica: a pilot study of a multimodal intervention. J Can Acad Child Adolesc Psychiatry. 2013;22(2):125-30.

76. Larsen CD, Larsen MD, Kim M, Yang E, Brown N, Cunningham RP. Sequential years of dental outreach to Jamaica. Gains toward improved caries status of children. N Y State Dent J. 2014;80(5):40-5.

77. Francis M, Nichols SS, Dalrymple N. The effects of a school-based intervention programme on dietary intakes and physical activity among primary-school children in Trinidad and Tobago. Public Health Nutr. 2010;13(5):738-47. doi:10.1017/S1368980010000182

78. Ravindran AV, Herrera A, da Silva TL, Henderson J, Castrillo ME, Kutcher S. Evaluating the benefits of a youth mental health curriculum for students in Nicaragua: a parallel-group, controlled pilot investigation. Glob Ment Health (Camb). 2018 Jan 25;5:e4. doi: 10.1017/gmh.2017.27

79. Allen PJ, Meadows-Oliver M, Ryan-Krause P. Establishing a school-based clinic in Managua, Nicaragua. Pediatr Nurs. 2008;34(3):262-6.

80. Sharma B, Kim HY, Nam EW. Effects of school-based health promotion intervention on health behaviors among school adolescents in North Lima and Callao, Peru. J Lifestyle Med. 2018;8(2):60-71. doi:10.15280/jlm.2018.8.2.60

81. Kim HY, Nam EW, Jin KN, So AY. Effectiveness of a school-based mental health education program in an impoverished urban area of Peru. Glob Health Promot. 2020;27(1):77-86. doi:10.1177/1757975918786728

82. Carriedo Á, Bonvecchio A, López N, Morales M, Mena C, Théodore FL, et al. Use of social marketing to increase water consumption among school-age children in Mexico City. Salud Publica Mex. 2013;55 Suppl 3:388-96.

83. Franken S, Smit CR, Buijzen M. Promoting water consumption on a Caribbean island: An intervention using children's social networks at schools. Int J Environ Res Public Health. 2018 Apr;15(4):713. doi: 10.3390/ijerph15040713

84. Moysés ST, Moysés SJ, Watt RG, Sheiham A. Associations between health-promoting schools' policies and indicators of oral health in Brazil. Health Promot Int. 2003;18(3):209-18. doi:10.1093/heapro/dag016

85. Barría von BF, Guzmán MP, Villaseca Calvo I, Von Bischhoffshasen AC. Programa Nacional de JUNAEB en Salud Escolar Oftalmológica en Chile: análisis de sus resultados / Chilean National Program of Ophthalmologic School Health by JUNAEB: outcome analysis. Arch Chil Oftalmol. 2005;62(1/2):117-23.

86. Sanchez ZM, Sanudo A, Andreoni S, Schneider D, Pereira APD, Faggiano F. Efficacy evaluation of the school program Unplugged for drug use prevention among Brazilian adolescents. BMC Public Health. 2016;16(1):1206. doi: 10.1186/s12889-016-3877-0

87. Mardones F, Vega MP, Pemjean UJ, Bustamante CR. El programa chileno de alimentación escolar, 1965-1997 / The Chilean school-feeding program, 1965-1997. Rev Chil Nutr. 1998;25(1):57-68.

88. Kain J, Uauy R, Concha F, Leyton B, Bustos N, Salazar NG, et al. School-based obesity prevention interventions for Chilean children during the past decades: lessons learned. Adv Nutr. 2012 Jul;13(4):616S-21S. doi:10.3945/an.112.001966

89. Pérez R, Aya D, Prieto F, Pinzón-Rondón AM. Disminución de las prevalencias de desnutrición mediante la promoción de la salud en grupos de escolares en una localidad de Bogotá. Revista UDCA Actualidad Divulgación Científica. 2012;15(1):35-42. doi: 10.31910/rudca.v15.n1.2012.800

90. Hernandez J, Constanza CS. Factores asociados con la implementacion de la estrategia educative nutricional "El sabor del saber": perspectiva docente. Revista Salud UIS. 2009;41(1).

91. Florez AL, Hewitt RN. Acciones de Reforzamiento de la Competencia Social (ARCOS): un programa de salud escolar fundamentado en conceptos de autodeterminación humana. Psychol Av Discip. 2013;7(2):117-22.

92. Cardenas Cardenas LM, Suarez Cardenas CC, Agudelo NA. Implementacion de la estrategia escuela saludable. Una alianza intersectorial. Invest Educ Enferm. 2010;28(3):428-34.

93. Pérez Cueto MD, Sánchez Álvarez MD, Cueto Montoya GA, Mayor Puerta AM, Fernández Cárdenas N, Alegret Rodríguez M. Intervención educativa y parasitismo intestinal en niños de la enseñanza primaria. Revista Cubana Medicina General Integral. 2007;23(2). Available from: http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S0864-21252007000200010&lng=es&tlng=es

94. Torres I, Simovska V. Community participation in rural Ecuador's school feeding programme: A health-promoting school perspective. Health Educ. 2017;117(2):176-92. doi:10.1108/HE-02-2016-0009

95. Torres I. Policy windows for school-based health education about nutrition in Ecuador. Health Promot Int. 2017;32(2):331-9. doi:10.1093/heapro/daw037

96. Ávila Montes GA, Araujo R, Leontsini E, Herrera GO, Cerna EF. Un programa escolar para el control del dengue en Honduras: del conocimiento a la práctica. Rev Panam Salud Publica. 2012;31(6):518–22.

97. Alvirde-García U, Rodríguez-Guerrero AJ, Henao-Morán S, Henao-Morán S, Gómez-Pérez FJ, Aguilar-Salinas CA, et al. Resultados de un programa comunitario de intervención en el estilo de vida en niños. Salud Publica Mex. 2013;55(Suppl 3):406-14. Available from: http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S0036-36342013000900007&lng=es&tlng=es

98. Abril-Valdez E, Rascón-Loreto C, Bonilla-Fernández P, Hernández-Pérez H. Promoción de hábitos saludables en escolares de Hermosillo, Sonora, México. Rev Cubana Hig Epidemiol. 2012;50(3):354-64. Available from: http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S1561-30032012000300010&lng=es&tlng=es

99. Ríos-Cortázar V, Gasca-García A, Ordóñez AR. Reducción de la obesidad infantil a través del componente de nutrición de una iniciativa de Escuela Promotora de Salud. Salud Publica Mex. 2013;55(Suppl 3):S431-3. Available from: https://saludpublica.mx/index.php/spm/article/view/5144

100. Choque-Larrauri R, Chirinos-Caceres JL. Eficacia del programa de habilidades para la vida en adolescentes escolares de Huancavelica, Peru. Rev Salud Publica. 2009;11(2):169-81.

Annexes

Annex 1
Global standards for health-promoting schools and standard statements

1	**Government policies and resources** There is whole-of-government commitment to and investment in making every school a health-promoting school.
2	**School policies and resources** There is commitment to a whole-school approach to being a health-promoting school.
3	**School governance and leadership** There is a whole-school model of school governance and leadership to support being a health-promoting school.
4	**School and community partnerships** There is engagement and collaboration within the school community, including with students and between the school and local communities, for health-promoting schools.
5	**School curriculum supports health and well-being.** The school curriculum supports physical, social-emotional, and psychological aspects of student health and well-being.
6	**School social-emotional environment** The school has a safe and supportive social-emotional environment.
7	**School physical environment** The school has a healthy, safe, secure, and inclusive physical environment.
8	**School health services** All students have access to comprehensive school-based or school-linked health services that address their physical, emotional, psychosocial, and educational health care needs.

Source: World Health Organization and the United Nations Educational, Scientific and Cultural Organization. Making every school a health-promoting school: global standards and indicators for health-promoting schools and systems. Geneva: World Health Organization and the United Nations Educational, Scientific and Cultural Organization; 2021. Available from: https://apps.who.int/iris/bitstream/handle/10665/341907/9789240025059-eng.pdf

Annex 2
Summary details of articles scoping review

	AUTHORS (YEAR)	TITLE	LOCATION AND POPULATION	DEFINITIONS AND CONCEPTS OF SCHOOL HEALTH AND HPS	HEALTH TOPICS	RESULTS AND CONCLUSIONS
1	Martin TC, Josiah-Martin JA, Roberts CW, Henry HåP. (2001)	Toward effective school-based substance abuse prevention "breaking the cycle" programme in Antigua and Barbuda	Antigua and Barbuda 5,571 third-grade students aged 8–9 years, from 46 schools	Health education and curriculum	Substance use	A curriculum-based life skills intervention using interactive teaching methods to teach on drug harm use, community values, decision-making, and peer resistance training. Uptake of the intervention was good. At a cost of US$ 7 per student, the program was considered cost-effective.
2	Rossi ML, Antun MC, Casagrande ML, et al. (2019)	Evaluacion de la intervencion del program Mi Escuela Saludable en una cohort de escuelas que ha participado durante 2016–2017	Argentina Buenos Aires	Healthy and safe learning environment Health education and curriculum	Healthy habits Physical activity Eating habits Screen hours	A two-year nutritional intervention that engaged teachers and students to seek healthy alternatives and improve nutritional habits. The intervention reduced unhealthy food intake. There was no favorable difference in the habitual consumption of fruits and vegetables, nor in physical activity or screen hours.

	AUTHORS (YEAR)	TITLE	LOCATION AND POPULATION	DEFINITIONS AND CONCEPTS OF SCHOOL HEALTH AND HPS	HEALTH TOPICS	RESULTS AND CONCLUSIONS
3	Kornblit AL, Mendes Diz AM, Di Leo PF, Camarotti AC. (2007)	Entre la teoria y la practica: algunas reflexiones en torno al sujeto en el campo de la promocion de la salud	Argentina Buenos Aires	Governance of school health programs School health policy environment	NA	Lessons learned from implementation of HPS in Buenos Aires. This article reflects on conceptual aspects of HPS and their implications. Key conclusions include: the need for opportunities to adapt the HPS guidance to the local context; the importance of accommodating and fostering acceptance and solidarity for differences between sub-groups in the school communities, particularly related to the most vulnerable groups; the risk assessment of young people (the sense that others may be at risk but that they personally are not) is a challenge that needs to be overcome to effectively achieve results for improved health; fostering critical thinking with regard to what the market offers and what is healthy is critical. Key elements of HPS must be: stimulate the autonomy of subjects, favor the collective above the individual, work with and not for, seek institutional transformation that generates autonomy.
4	Esandi ME, Panizoni E, Schernuk-Schroh J, et al. (2018)	Factibilidad de implementar una intervencion compleja para prevenir la intimidacion entre pares en el ambito escolar	Argentina Bahia Blanca City 1,182 school children aged 8–12 years	Healthy and safe learning environment	Bullying	A bullying-prevention intervention in schools, using locally designed solutions, included teacher training, improved listening skills, social media, workshops, etc. The evaluation showed mixed results in terms of acceptability and impact.
5	Codarini G, Andracchio M, Viggiani F, Gonzalez P, Lev D. (2018)	Programa nacional de salud escolar: una politica de cuidado de ninas, ninos y adolescentes en edad escolar de Argentina	Argentina National	Governance of school health programs School health policy Access to health services Health education and curriculum	NA	Description of the Programa Nacional de Salud Escolar (PROSANE) and 10 years implementation. The target population of PROSANE are grades 1–6 of primary school. The program is implemented in an intersectoral collaboration between the Ministries of Health and Education.

	AUTHORS (YEAR)	TITLE	LOCATION AND POPULATION	DEFINITIONS AND CONCEPTS OF SCHOOL HEALTH AND HPS	HEALTH TOPICS	RESULTS AND CONCLUSIONS
6	Franken SCM, Smit CR, Buijzen M.	Promoting water consumption on a Caribbean island: an intervention using children's social networks at schools	Aruba National level Children aged 11 years	Student and community participation	Water consumption	A social network-based intervention (SNI) using students as peer influencers. Promoting water consumption as opposed to sugary drinks showed promising results for health behavior change.
7	Stanton B. (2015)	Teachers' patterns of implementation of an evidence-based intervention	The Bahamas National level Grade 6 and 7 students	Health education and curriculum	HIV	Program fidelity is important. In this program, the quality of the booster session a year after initial implementation was critical for success.
8	Wang B, Stanton B, Deveaux L, et al. (2017)	Multi-year school-based implementation and student outcomes of an evidence-based risk reduction intervention	The Bahamas National level Elementary and middle schools	Health education and curriculum	HIV	An HIV prevention program, Focus on Youth in the Caribbean (FOYC), implemented in 80 government elementary and 34 middle schools. Teacher attitudes had a direct positive effect on student outcomes.
9	Wang B, Stanton B, Deveaux L, et al. (2015)	Fidelity of implementation of an evidence-based HIV prevention program among Bahamian sixth grade students	The Bahamas National level Grade 6 and 7 students	Health education and curriculum	HIV	Teachers taught on average 16.3 out of 30 core activities, 24.9 out of 46 total activities, and 4.4 out of 8 sessions. Prior training of teachers in the intervention curriculum, teacher perception of the importance of the intervention, and fewer years as a teacher are associated with implementation fidelity, which is associated with improved student outcomes.
10	Lwegaba A. (2005)	Field trial to test and evaluate primary tobacco prevention methods in clusters of elementary schools in Barbados	Barbados 31 primary schools	Health education and curriculum	Tobacco use prevention	After the program, the occurrence of experimental smoking in the last 30 days dropped from 9.2% to 1.2%.
11	Paz FM, Teixeira VA, Pinto Ro, et al. (2017)	School health promotion and use of drugs among students in Southern Brazil	Brazil	Healthy and safe learning environment	Substance use	The effects of the school environment on the use of drugs were not significant separate from the individual and family conditions of the students.

	AUTHORS (YEAR)	TITLE	LOCATION AND POPULATION	DEFINITIONS AND CONCEPTS OF SCHOOL HEALTH AND HPS	HEALTH TOPICS	RESULTS AND CONCLUSIONS
12	Goncalves Maia Brazil E, Magalhaes da Silva R, Rocineide Ferreira da Silva M, et al. (2015)	Adolescent health promotion and the school health program: complexity in the articulation of health and education	Brazil Fortaleza, Ceara	Governance of school health programs	NA	School professionals' lack of knowledge about the program and a lack of intersectoral planning between education and health contributed to poor articulation and implementation of the school health program.
13	Moyses ST, Moyses SJ, Watt RG, Sheiham A. (2003)	Associations between health-promoting school policies and indicators of oral health in Brazil	Brazil Curitiba 1,823 12-year-old students from 33 primary schools	Health education and curriculum	Oral health	Schools with a comprehensive curriculum were more likely to have a higher percentage of caries-free students.
14	Bechara GM, Castelo Branco F, Rodrigues AL, et al. (2018)	Kids and diabetes in schools project: experience with an international educational intervention among parents and school professionals	Brazil 5 primary schools with 42 parents and school staff	Health education and curriculum Student and community participation	Diabetes	The school staff and family members acquired new knowledge about diabetes and felt more confident in supporting children with diabetes.
15	Oliviera FPSL, Vargas AMD, Hartz Z, Dias S, Ferreira EFE. (2018)	Elementary and lower secondary school students' perceptions of the health at school programme: a case study in Belo Horizonte, Brazil	Brazil Belo Horizonte Students 11–14 years	Governance of school health programs	NA	Students assessed the program as positive, as an opportunity to gain information and knowledge, and as a way to access health services.
16	Souza EF, Soares M, Paolo TR, Brandao MV, Freitas Junior IF. (2018)	Constructing a logical model in school health: experience on the lower Amazon Region	Brazil Parintins, Amazonas Secondary school students	Governance of school health programs Health education and curriculum	Physical activity Healthy eating habits	A systematic structure for implementing the school health program on the municipal level is important for its effective implementation.

	AUTHORS (YEAR)	TITLE	LOCATION AND POPULATION	DEFINITIONS AND CONCEPTS OF SCHOOL HEALTH AND HPS	HEALTH TOPICS	RESULTS AND CONCLUSIONS
17	Medeiros E, Pinto ES, Paiva AC, Nascimiento CP, Camila PA, Reboucas DG, et al. (2018)	Facilidades e dificuldades na implantacao do programa saude na escola em um municipio do nordeste do Brasil	Brazil Rio de Janeiro 120 schools participating in the HPS strategy	Governance of school health programs School health policy environment Health education and curriculum Student and community participation	NA	Factors that facilitated implementation of the school health program were intersectoral articulation and professional satisfaction. Shortage of material and financial resources, lack of intersectoral articulation, and excessive workload were mentioned as limiting factors.
18	Becker D, Edmundo K, Bonatto D, Do Nascimento GF, dos Santos Silva C. (2005)	Problem solving for better health (PSBH) and health-promoting schools: participatory planning and local action in the Rio de Janeiro program	Brazil Rio de Janeiro 120 schools participating in the HPS strategy	Governance of school health programs School health policy environment Health education and curriculum Student and community participation	SRH Drug use interpersonal relationships	Schools and stakeholders prioritized topics and issues to be addressed. The most frequently selected issues included violence in school, improvement of learning, self-esteem of students and teachers, smoking, and HIV. Key factor for success was direct participation of the school community, from the definition of the main needs and priorities to the development and evaluation of interventions.
19	Batista M da SA, Mondini L, Jaime PC. (2017)	Actions of the school health program and school meals in the prevention of childhood overweight: experience in the municipality of Itapevi, São Paulo State, Brazil	Brazil Itapevi, São Paulo 21 public primary schools of the first cycle	Healthy and safe learning environment	Nutrition	High presence of ultra-processed foods in the breakfast and afternoon snacks. 30.6% of the students were overweight. The assessment suggested the need for adjustment of the school menus.
20	Favre TC, Pereira APB, Beck LCNH, Galvao AF, Pieri OS. (2015)	School-based and community-based actions for scaling up diagnosis and treatment of schistosomiasis toward its elimination in an endemic area of Brazil	Brazil	Student and community participation	Schistosomiasis	The assessment concluded that actions targeting vulnerable communities should combine school-based and community-based interventions.

	AUTHORS (YEAR)	TITLE	LOCATION AND POPULATION	DEFINITIONS AND CONCEPTS OF SCHOOL HEALTH AND HPS	HEALTH TOPICS	RESULTS AND CONCLUSIONS
21	Monteiro PH, Bizzo N. (2015)	Health in school: an examination of the reference documents for the forty years of compulsory health programs, 1971–2011	Brazil	Governance of school health programs	NA	Through review of relevant documents and stakeholder interviews, including with students, the researchers try to articulate and assign meaning to school health. The study concluded that the school is a suitable environment for health practice, considering the active participation of its peers, emphasizing the significance of "school-life world" for the adolescent, and the importance of aligning adolescents' actions to their life plan and health project.
22	De Barros MVG, Nahas MV, Hallal PC, de Farias Junior JC, Florindo AA, Honda de Barros SS. (2009)	Effectiveness of a school-based intervention on physical activity for high school students in Brazil: the Saude na Boa project	Brazil Recife and Florianopolis Ten schools in each city, targeting students ages 15–24 years	Health education and curriculum Healthy and safe learning environment	Physical activity	The intervention was effective at reducing the prevalence of physical inactivity.
23	Sanchez ZM, Sanudo A, Andreoni S, Schneider D, Pereira APD, Faggiano F. (2016)	Efficacy evaluation of the school program Unplugged for drug use prevention among Brazilian adolescents	Brazil 2,185 students from 16 middle schools in 3 Brazilian cities	Health education and curriculum	Drug use prevention	There was no evidence that the program affected the students ages 11–12, but it showed some results in students ages 13–15, specifically related to marijuana use and binge drinking.
24	Cyrino EG, Pereira ML. (1999)	Integration of health into the school curriculum in Botucatu, São Paolo	Brazil Botucatu, Sao Paulo	Governance of school health programs Health education and curriculum Access to health services	NA	This article documents the integration of health activities in the elementary school curriculum in Botucatu through training of personnel from the health and education sector, fostering of interdisciplinary teamwork, and working with teachers to develop and implement innovative measures to address health issues and meet the health needs of the students and the community.

	AUTHORS (YEAR)	TITLE	LOCATION AND POPULATION	DEFINITIONS AND CONCEPTS OF SCHOOL HEALTH AND HPS	HEALTH TOPICS	RESULTS AND CONCLUSIONS
25	Cordeiro KCC, Gomes NP, Estrela FM, Silva AF, Magalhães JRF, Lírio JGDS. (2019)	Strategies by educators within the school setting to prevent and cope with the experience of domestic violence by adolescents	Brazil Salvador, Bahia	Access to health services	Domestic violence	This study explored the role of the school in preventing and addressing domestic violence experienced by students in the home, and concluded that the following five actions can contribute: Activate the Guardianship Council in case of suspected abuse; create reception and listening spaces for students; strengthen bonds between the school and family; promote educational actions; and articulate knowledge through partnerships between the school and other professionals.
26	Barria von B, Guzman MP, Villaseca CI, Von Bischhoffsahsen AC. (2005)	Programa nacional de JUNAEB en salud escolar oftalmologica en Chile: analisis de sus resultados	Chile	Access to health services	Ocular health	The ocular school health program in Chile resulted in significant numbers of school children being diagnosed with astigmatism and prescription of glasses.
27	Kain J, Concha F, Salazar G, Leyton B, et al. (2009)	Obesity prevention in preschool and school children attending public schools from a district of Santiago, Chile: pilot project 2006	Chile Santiago 7 public primary schools	Governance of school health programs Health education and curriculum	Obesity Nutrition Physical activity	The five-month intervention demonstrated a decrease in obesity in the younger children and improved fitness. The evaluation also indicated a trend toward decreasing BMI and increasing levels of physical activity in teachers. It was concluded that more time should be given to training teachers for successful program implementation.
28	Kain J, Concha F, Moreno L, Leyton B. (2014)	School-based obesity prevention intervention in Chilean children: effective in controlling, but not reducing obesity	Chile Santiago 9 elementary schools Students ages 6–8 years	Health education and curriculum	Obesity Nutrition Physical activity	Teachers were trained to deliver nutrition contents and improve the quality of PE classes. The study documented a non-significant decrease in obesity in girls from intervention schools and an increase in control schools. It was concluded that the intervention was effective in controlling obesity, but not in preventing it.

	AUTHORS (YEAR)	TITLE	LOCATION AND POPULATION	DEFINITIONS AND CONCEPTS OF SCHOOL HEALTH AND HPS	HEALTH TOPICS	RESULTS AND CONCLUSIONS
29	Mardones F, Vega MP, Pemiean U, Bustamante RC. (1998)	El programa chileno de alimentacion escolar 1965–1997	Chile	Governance of school health programs Access to health services	Nutrition	Evaluation of 32 years' implementation of the school feeding program indicates that the program has contributed to health improvement. Challenges were identified with the selection and weighted assignment of resources to the most vulnerable schools and populations, and the lack of an individualized focus on recipients and groups and their needs, in line with their stage of puberty and development.
30	Guzman J, Kessler RC. (2015)	Evidence for the effectiveness of a national school-based mental health program in Chile	Chile	Governance of school health programs Student and community participation	NA	The two most important factors that contributed to the success of the Vida Chile program were the participation of community and societal groups, and an adequate budget for local activities.
31	Kain J, Uauy R, Concha F, et al. (2012)	School-based obesity prevention interventions for Chilean children during the past decades: lessons learned	Chile Casablanca Macul	Governance of school health programs Health education and curriculum Student and community participation	Obesity Nutrition Physical activity	Lessons learned: parent participation is limited, obesity is not recognized as a problem, increasing physical activity and implementing training for teachers is difficult due to inflexible curriculum and lack of teachers' time.
32	Salinas C, Vio del RF. (2011)	Programas de salud y nutricion sin politica de Estado: el caso de la promocion de salud escolar en Chile	Chile	Governance of school health programs School health policy environment	NA	Since the cancellation of the nationally accredited school health program Vida Chile, multiple unspecified actions have been carried out, with limited results. The article concludes that it is necessary to create a national institution responsible for implementing a coherent public school health promotion policy.
33	Morales A, Garcia-Montano E, Barrios-Ortega C, et al. (2019)	Adaptation of an effective school-based sexual health promotion program for youth in Colombia	Colombia Adolescents aged 15–19 years	Student and community participation	Sexual health HIV STI	A Spanish sexual health intervention (COMPAS) was adapted for implementation in schools in Colombia. The adaptation included cultural and linguistic changes, and active participation of adolescents in the adaptation process.

	AUTHORS (YEAR)	TITLE	LOCATION AND POPULATION	DEFINITIONS AND CONCEPTS OF SCHOOL HEALTH AND HPS	HEALTH TOPICS	RESULTS AND CONCLUSIONS
34	Campos AC, Robledo-Martinez R, Arango-Soler JM, Agudelo-Calderon CA. (2012)	Evaluacion de la politica publica de escuela saludable en Colombia: fase de formulacion (1999–2006)	Colombia	School health policy environment	NA	The study analyzed the public policy cycle related to healthy schools and concluded that healthy schools have not been a policy priority during 1999–2006 in Colombia, in spite of a stated commitment.
35	Hernandez J. (2007)	Estrategia escuelas promotoras de la salud en instituciones de basica primaria de Bucaramanga	Colombia Bucamaranga 33 elementary schools	School health policy environment Health education and curriculum Student and community participation Access to health services	NA	Evaluation of the implementation of the strategy: Estrategia Escuelas Saludables (EES) in 33 elementary schools. The evaluation focused on: 1) the establishment of institutional policies for development of EES; 2) establishment of a coordination team; 3) participation of teachers and directors in the implementation of EES activities; and 4) development and implementation of action plans. The evaluation highlighted the importance of an integral approach, ensuring the participation of the various stakeholders, the importance of political leadership, technological innovation, participatory identification and formulation of priorities, and the availability and effective use of information and resources.
36	Perez R, Aya DH, Prieto F, Pinzon-Rondon AM. (2012)	Disminucion de las prevalencias de desnutricion mediante la promocion de la salud en grupos de escolares en una localidad de Bogota	Colombia Bogota Students from 6 public schools in Bogota	Health education and curriculum Access to health services	Nutrition	The evaluation of the program "Salud Escolar Integral" targeting students ages 5–8 years was conducted to assess the levels of acute and chronic malnutrition in students. In the period 2001–2005, both acute and chronic malnutrition were significantly reduced.

	AUTHORS (YEAR)	TITLE	LOCATION AND POPULATION	DEFINITIONS AND CONCEPTS OF SCHOOL HEALTH AND HPS	HEALTH TOPICS	RESULTS AND CONCLUSIONS
37	Hernandez J, Constanza Concha S. (2009)	Factores asociados con la implementacion de la estrategia educative nutricional "El sabor del saber": perspectiva docente	Colombia Santander 82 teachers from 36 municipalities and 56 schools	Health education and curriculum	Nutrition	Evaluation of the implementation of the intervention "El sabor del saber" highlighted the important role that teachers serve as mediators and facilitators for learning about nutrition and, in general, about the health and well-being of their students. This role requires that the teachers acquire the necessary knowledge, skills, and conviction.
38	Florez Alarcon L, Hewitt Ramirez N. (2013)	Acciones de reforzamiento de la competencia social (ARCOS): un programa de salud escolar fundamentado en conceptos de autodeterminaacion humana	Colombia Middle and high school students	Health education and curriculum	Universal prevention Protective factors	Development of the intervention "ARCOS," based on results of previous interventions with similar underlying concepts, benefitted from a research design with analysis at every stage of the development and adaptation, as needed, based on the lessons learned.
39	Cardenas Cardenas LM, Suarez Cardenas CC, Agudelo Cely NA. (2010)	Implementacion de la estrategia escuela saludable. Una alianza intersectorial	Colombia Nuevo Colon, Boyaca	Governance of school health programs Health education and curriculum Healthy and safe learning environment Student and community participation	Water and sanitation Nutrition Headaches Gastrointestinal problems Skin problems	Description of the process for participatory design and implementation of an HPS program in a school in Nuevo Colon. The program resulted in an intersectoral set of interventions that included individual, family, and community-level actions and required collaboration between the education and health sectors and the municipal authorities.

	AUTHORS (YEAR)	TITLE	LOCATION AND POPULATION	DEFINITIONS AND CONCEPTS OF SCHOOL HEALTH AND HPS	HEALTH TOPICS	RESULTS AND CONCLUSIONS
40	Carvajal Rodríguez C, Torres Cuesto GMA. 2007	Estrategia metodologica para desarollar la promocion de la salud en las escuelas cubanas	Cuba	Governance of school health programs Health education and curriculum School health policy environment	NA	The paper analyzed the implementation of health-promoting schools in Cuba. The analysis concluded that the program does not take full advantage of the potential of the Cuban education system to promote the health and well-being of its students. The results contributed to strengthening the implementation of this approach in Cuba, including fostering shared values regarding health and health care, social participation, and a culture of health.
41	Perez Cueto, MC, Sanchez Alvarez ML, Cueto Montoya GA, Mayor Puerta AM, Fernandez Cardenas N, Alegret Rodriguez M. (2007)	Intervencion educativa y parasitismo intestinal en ninos de la ensenanza primaria	Cuba Los Sirios, Santa Clara	Health education and curriculum Student and community participation Access to health services	Intestinal parasites	An intervention in which intestinal parasites were diagnosed, followed by educating parents, treating the children, and post-intervention diagnosis. The intervention resulted in a significant reduction in the burden of intestinal parasites in the children in the participating schools after 6 months.
42	Andrade S, Lachat C, Ochoa-Aviles A, et al. (2014)	A school-based intervention improves physical fitness in Ecuadorian adolescents: a cluster-randomized controlled trial	Ecuador	Health education and curriculum	Physical fitness	A two-year, school-based program improved the physical fitness in the intervention group.
43	Andrade S, Verloigne M, Cardon G, et al. (2015)	School-based intervention on healthy behavior among Ecuadorian adolescents: effect of a cluster-randomized controlled trial on screen-time	Ecuador Adolescents of grade 8–9 from 20 schools	Health education and curriculum	Screen time Diet Physical activity	The multi-component school-based intervention was able to mitigate the increase in screen time only when it included specific components or activities that focused on reducing screen time.

	AUTHORS (YEAR)	TITLE	LOCATION AND POPULATION	DEFINITIONS AND CONCEPTS OF SCHOOL HEALTH AND HPS	HEALTH TOPICS	RESULTS AND CONCLUSIONS
44	Andrade S, Lachat C, Cardon G, et al. (2016)	Two years of school-based intervention program could improve the physical fitness among Ecuadorian adolescents at health risk: subgroups analysis from a cluster-randomized trial	Ecuador Cuenca 1,440 adolescents from grade 8–9	Health education and curriculum Healthy and safe learning environment Student and community participation	Physical activity	A multi-component program, called ACTIVITAL, with individual and environmental interventions improved the speed and strength aspects of physical fitness in low-fit and overweight/obese adolescents.
45	Bustamente G, Andrade MS, Mikesell C, et al. (2019)	"I have the right to feel safe": evaluation of a school-based child sexual abuse prevention program in Ecuador	Ecuador Children aged 7–12 years from six public elementary schools	Health education and curriculum	Child sexual abuse	A 10-week educational program to teach children self-protection strategies showed they had increased knowledge six months after the intervention finished.
46	Torres I, Simovska V. (2017)	Community participation in rural Ecuador's school feeding programme. A health-promoting school perspective	Ecuador	Governance of school health programs Student and community participation	Nutrition	The meaningful participation of parents and community members in small rural schools in a low- to middle-income country such as Ecuador can be linked to an empowered stance toward school feeding programs. School leadership, geographical characteristics, and internal community organization seem to influence participation, what shape it takes, and how it is valued.
47	Torres I. (2016)	Policy windows for school-based health education about nutrition in Ecuador	Ecuador	Governance of school health programs School health policy environment Student and community participation	Nutrition	A biomedical perspective and norms resulted in schools being viewed as settings for interventions rather than as sites for generating change. A holistic understanding of health facilitated critical participation of stakeholders and the community, addressing the broader determinants of health through critical, democratic, and collaborative processes anchored in and supported by the local community.

	AUTHORS (YEAR)	TITLE	LOCATION AND POPULATION	DEFINITIONS AND CONCEPTS OF SCHOOL HEALTH AND HPS	HEALTH TOPICS	RESULTS AND CONCLUSIONS
48	Kulis SS, Marsiglia FF, Porta M, Arevalo Avalos MR, Ayers SL. (2019)	Testing the Keepin' it Real substance use prevention curriculum among early adolescents in Guatemala City	Guatemala Guatemala City	Health education and curriculum	Substance use	The intervention group reported changes, both pre-test and post-test, in desirable directions on behaviors related to substance abuse and attitudes, and acquisition of skills relevant to resisting drug use. The comparison group generally showed changes in undesirable directions.
49	Eustache E, Gerbasi ME, Severe J, et al. (2017)	Formative research on a teacher accompaniment model to promote youth mental health in Haiti: relevance to mental health task-sharing in low-resource school settings	Haiti Four secondary schools in Haiti's Central Plateau 120 secondary school students aged 18–22 years	Health education and curriculum	Mental health	This was a school-based mental health model aimed at providing psychosocial support and facilitating linkages to clinical resources; key elements included teacher training, school-based mental health screening of students, and regular teacher-student meetings. The results indicate that the program has conceptual appeal and potential utility for both students and teachers.
50	Avila Montes GA, Martinez M, Sherman C, Fernandez Cerna E. (2004)	Evaluation of an educational module on dengue and Aedes Aegypti for school children in Honduras	Honduras Comayaguela Four public elementary schools	Health education and curriculum Student and community participation	Dengue	Evaluation of a special course on environmental health and dengue for primary school students was implemented during 2005–2010, aimed at promoting a behavior change related to the mothers' safe handling of water, adequate disposal of trash, and controlling vector breeding sites. There was significant increase in student and teacher knowledge with respect to dengue, and it helped encourage participation of family members in reducing breeding sites in the home.
51	Avila Montes GA, Araujo R, Orellana Herrera G, Fernandez Cerna E. (2012)	Un programa escolar para el control del dengue en Honduras: del conocimiento a la practica	Honduras	Health education and curriculum Student and community participation	Dengue	This intervention, implemented during 2005–2010 in primary schools in various cities in Honduras, was based on positive results that showed increased student knowledge and improved prevention measures by students' families.

	AUTHORS (YEAR)	TITLE	LOCATION AND POPULATION	DEFINITIONS AND CONCEPTS OF SCHOOL HEALTH AND HPS	HEALTH TOPICS	RESULTS AND CONCLUSIONS
52	Larsen CD, Larsen MD, Kim M, Yang E, Brown N, Cunningham RP. (2014)	Sequential years of dental outreach to Jamaica. Gains toward improved caries status of children	Jamaica Saint Ann Parish One primary school	Health education and curriculum	Oral health	Four years of dental outreach, consisting of dental health promotion, education, and prevention, showed positive benefits in the caries status of the children.
53	Guzder J, Paisly V, Robertson-Hickling H, Hickling FW. (2013)	Promoting resilience in high-risk children in Jamaica: a pilot study of a multimodal intervention	Jamaica 30 children from an inner-city primary school	Access to health services	Mental health	A multi-modal after-school and summer psychotherapeutic intervention consisting of creative arts therapies and remedial academic support implemented over 2.5 years; it targeted academically underachieving children with severe disruptive disorders. The intervention group made significant improvements in school social functioning.
54	Brissett D, Griffiths-Irving J. (2008)	Speak up! Speak out! Building HIV and AIDS awareness among Jamaican school children	Jamaica 91 primary schools	Governance of school health programs Student and community participation	HIV/AIDS	This was a partnership between the private sector (Scotiabank), the Ministries of Health and Education, and schools to address HIV. While communication between partners was at times challenging, the feedback indicated the debates were a valuable strategy for building awareness and developing student potential and unity around a common cause.
55	Sosa-Rubi SG, Saavedra-Avendano B, Piras C, Van Buren SJ, Bautista-Arredondo S. (2017)	True love: effectiveness of a school-based program to reduce dating violence among adolescents in Mexico City	Mexico Mexico City Two urban, low-income high schools	Health education and curriculum	Dating violence	A 16-week intervention consisting of school- and individual-level components on dating violence (Amor. Pero del Bueno). The study measured a reduction in perpetrated and experienced psychological violence.
56	Gomez SA, Badillo AR. (2014)	Educacion para la salud, desde la teoria de la accion, en educacion primaria del Estado de Mexico	Mexico 1,451 primary school students and their parents	Health education and curriculum	Physical health Mental health	The evaluation concluded that, even though there are health topics in the curriculum, the content of physical and mental health is insufficient.

	AUTHORS (YEAR)	TITLE	LOCATION AND POPULATION	DEFINITIONS AND CONCEPTS OF SCHOOL HEALTH AND HPS	HEALTH TOPICS	RESULTS AND CONCLUSIONS
57	Safdie M, Levesque L, Gonzalez-Casanova I, et al. (2013)	Promoting healthful diet and physical activity in the Mexican school system for the prevention of obesity in children	Mexico Mexico City Students aged 9–11 from 27 elementary public part-time schools	School health policy environment Health education and curriculum Student and community participation Healthy and safe learning environment	Obesity Nutrition Physical activity	A two-year multi-factorial intervention with a communication/education component and intervention components on physical activity and nutrition, including increasing the availability of healthy food and beverages, reducing opportunities to eat, and increasing opportunities to engage in physical activity. The study aim was to promote energy balance in the school children. It was concluded that more comprehensive approaches that include families and modification of the food available in and around schools are necessary for optimal effectiveness.
58	Lopez-Nunez B, Aleksejuniene J, Villaneuva-Vilchis MDC. (2019)	School-based dental education for improving oral self-care in Mexican elementary school-aged children	Mexico 408 students from four elementary schools	Health education and curriculum Student and community participation	Oral health	This was a lecture-based educational intervention in one group and education by trained peer educators in another group. Outcomes of oral self-care knowledge and practices improved in the two intervention groups but not in a control group at 6-month follow-up.
59	Alvirde-Garcia U, Nut MSC, Rodriguez-Guerrero AJ, et al. (2013)	Resultados de un programa comunitario de intervencion en el estilo de vida en ninos	Mexico Tenango del Valle Two elementary schools	Health education and curriculum Student and community participation	Nutrition Cardiovascular health	Evaluation of three-year implementation of the program CATCH (Child and Adolescent Trial for Cardiovascular Health) showed positive but moderate results in reducing obesity, illustrating the complexity of interventions to address this health problem.
60	Carriedo A, Bonvecchio A, Lopez N, Morales M, Beltran Mena C, Theodore FL, et al. (2013)	Use of social marketing to increase water consumption among school-age children in Mexico City	Mexico	Health education and curriculum Healthy and safe learning environments	Nutrition Obesity	A three-month social marketing intervention, which included promoting and providing water to the intervention group, resulted in decreased consumption of sweetened beverages.

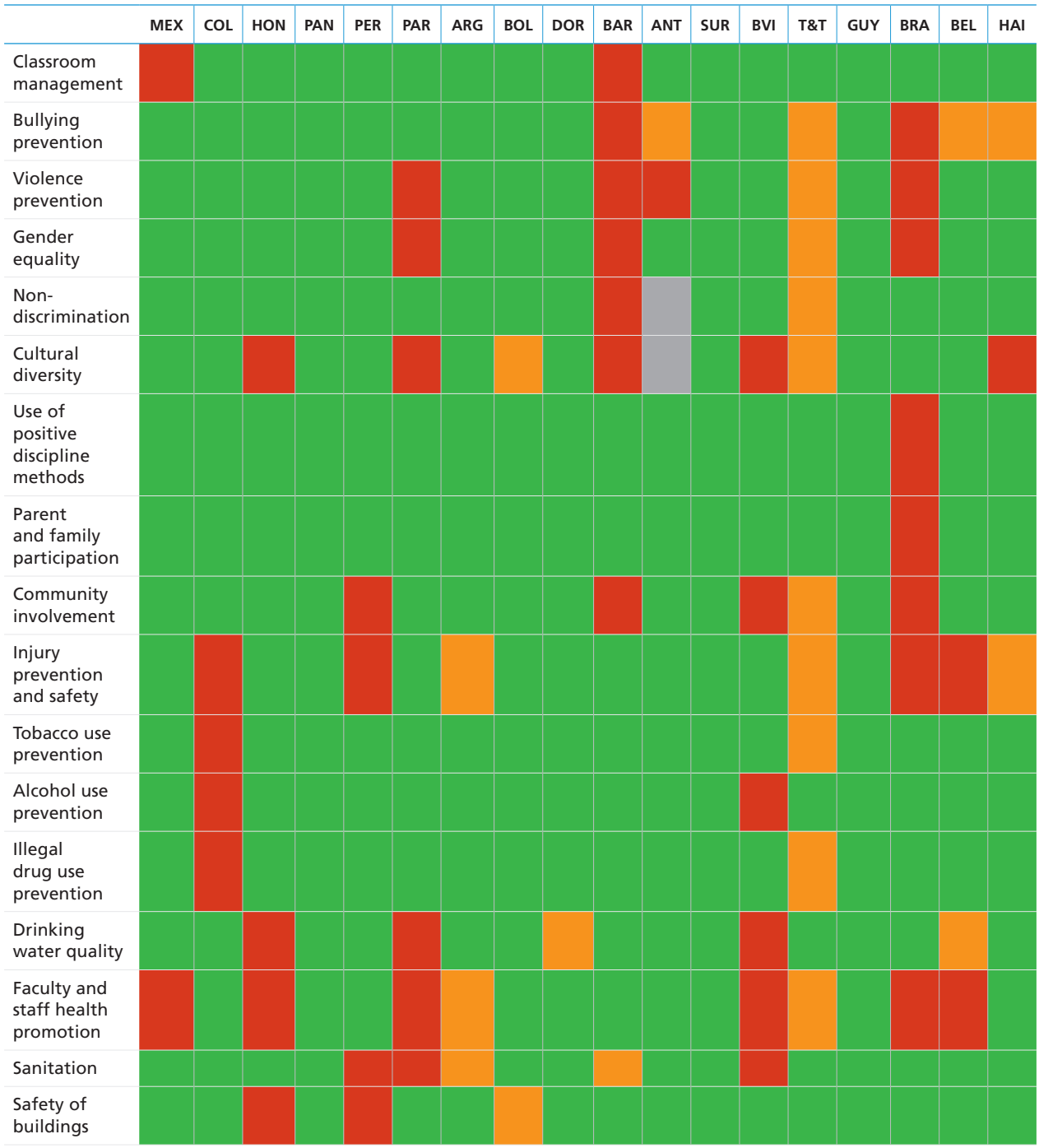
	AUTHORS (YEAR)	TITLE	LOCATION AND POPULATION	DEFINITIONS AND CONCEPTS OF SCHOOL HEALTH AND HPS	HEALTH TOPICS	RESULTS AND CONCLUSIONS
61	Abril-Valdez E, Rascon-Loreto C, Bonilla-Fernandez P, Hernandez-Perez H, Cuevas-Bahena S, Arenas-Monreal L. (2012)	Promocion de habitos saludables en escolares de Hermosillo, Sonora, Mexico	Mexico Hermosillo, Sonora	Health education and curriculum	Hygiene Self-esteem Tobacco Addictions Culture of peace Care for the environment	Weekly one-hour educational sessions with the students. Students' knowledge increased on these topics, and their self-esteem increased.
62	Rios-Cortazar V, Gasca-Garcia A, Fanco-Martinez M, Tolentina-Mayo L. (2014)	Narrativa infantil en entornos escolares: una estrategia de promocion de la salud	Mexico Mexico City A public elementary school	Health education and curriculum Student and community participation	Healthy lifestyle	A participatory approach towards HPS, consisting of participatory planning, implementation, and evaluation, and based on a model of shared and collaborative learning. It was applied in a community in the south of Mexico City that was characterized by high levels of unemployment, vandalism, theft, alcoholism, and drug sale and use. In the first phase, stakeholders analyzed and identified the key health challenges affecting the children, by grade level, through small group discussions. In the second phase, objectives and targets were identified, followed by jointly formulating strategies to achieve the targets. Narratives were identified as a priority strategy for the children to organize and negotiate their experiences and knowledge of the world. This was implemented through students developing, presenting, and discussing their stories and drawings. The evaluation concluded that the narrative approach illustrated that children are able to reflect on their health and identify solutions, and strengthened them as individuals as well as their collective capacity to address health challenges.

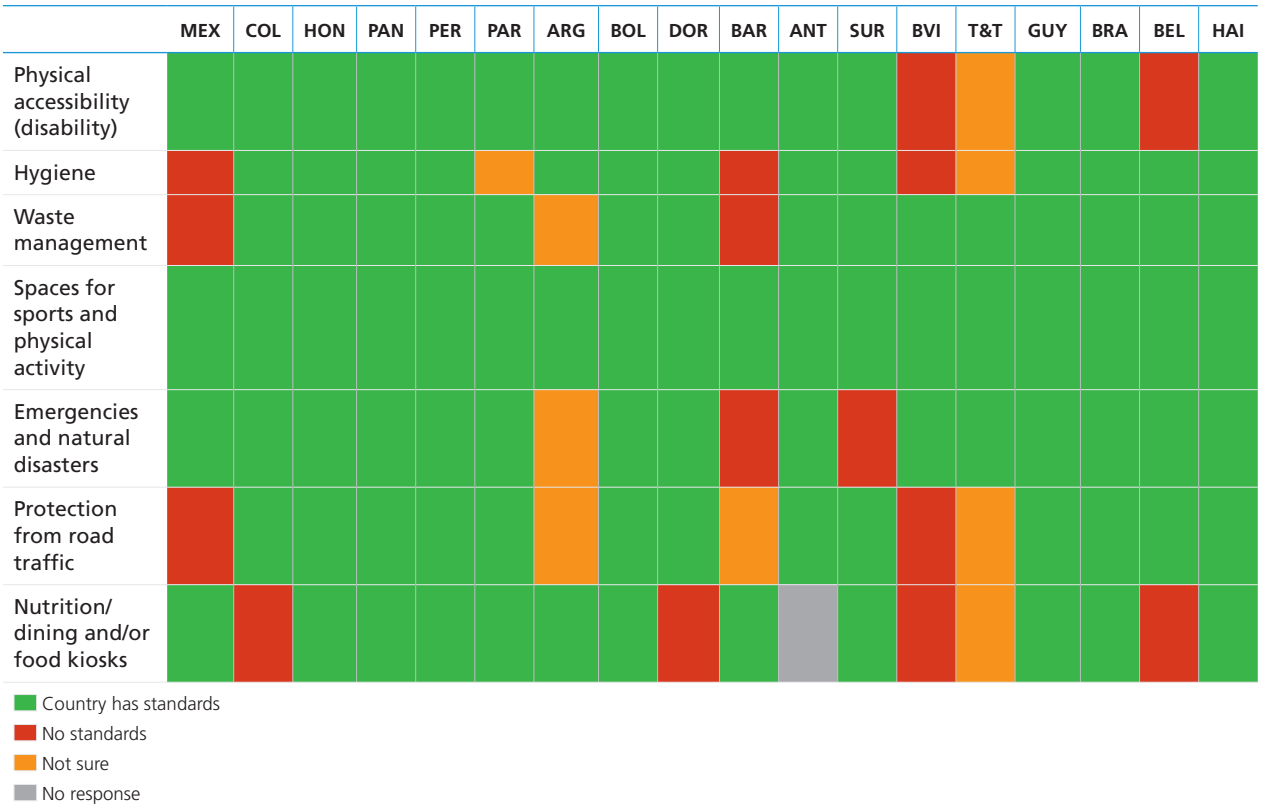
	AUTHORS (YEAR)	TITLE	LOCATION AND POPULATION	DEFINITIONS AND CONCEPTS OF SCHOOL HEALTH AND HPS	HEALTH TOPICS	RESULTS AND CONCLUSIONS
63	Rios-Cortazar V, Gasca-Garccia A, Ordonez AR, Vera ME, Franco-Martinez M, Tolentino-May L. (2013)	Reduccion de la obesidad infantil a traves del componente de nutricion de una iniciativa de Escuela Promotora de Salud	Mexico Mexico City A public elementary school with students from 1st-6th grade	Governance of school health programs Health education and curriculum Healthy and safe learning environment Student and community participation	Nutrition Overweight and obesity	A three-year, school-wide intervention consisting of education and skills-building for students on healthy nutrition and physical activity. Students' mean body mass index (BMI) reduced each year following implementation of the intervention. Important elements in the intervention were strengthening individual and collective capacities and values related to healthy living, including healthy nutrition and physical activity.
64	Ravindran AV, Herrera A, da Silva TL, Henderson J, Castrillo ME, Kutcher S. (2018)	Evaluating the benefits of a youth mental health curriculum for students in Nicaragua: a parallel-group, controlled pilot investigation	Nicaragua Leon High school and university students aged 14–25 years	Health education and curriculum Access to health services	Mental health	Pilot implementation of a curriculum-based mental health literacy intervention in Nicaragua. At 12 weeks, intervention students reported significantly greater mental health knowledge, less stigma, more adaptive coping, better lifestyle choices, and less perceived stress compared to control groups.
65	Allen P, Meadows-Oliver M, Ryan-Krause P. (2008)	Establishing a school-based clinic in Managua, Nicaragua	Nicaragua Managua	Access to health services	NA	Although the Ministry of Health theoretically provides health care for all, resources are often limited and difficult to access. A school-based clinic helped meet the day-to-day needs of the children and established health care contacts for more serious needs.
66	Sharma B, Kim HY, Nam EV. (2018)	Effects of school-based health promotion intervention on health behaviors among school adolescents in North Lima and Callao, Peru	Peru North Lima Callao Two secondary schools	Health education and curriculum Access to health services	Healthy lifestyle Nutrition Mental health Violence	This was an intervention consisting of health education, screening, and psychological counseling for vulnerable individuals; it resulted in significant improvement in the consumption of vegetables. Suicide attempts, television-watching, video game use, internet use, consumption of chips and sugary drinks, and being in fights did not decrease in the intervention group, but increased in the control group.

	AUTHORS (YEAR)	TITLE	LOCATION AND POPULATION	DEFINITIONS AND CONCEPTS OF SCHOOL HEALTH AND HPS	HEALTH TOPICS	RESULTS AND CONCLUSIONS
67	Choque-Larrauri R, Chirinos-Caceres JL. (2009)	Eficacia del programa de habilidades para la vida en adolescentes escolares de Huancavelica, Peru	Peru A high school in Huancavelica	Health education and curriculum	Life skills	Evaluation of the one-year implementation of a life skills program in the context of HPS demonstrated results in improved assertiveness, communication, self-esteem, and better decision-making in the intervention group.
68	Escobar-Chaves SL, Shegog R, Moscoso-Alvarez MR, et al. (2011)	Cultural tailoring and feasibility assessment of a sexual health middle school curriculum: a pilot test in Puerto Rico	Puerto Rico Seventh grade students	Health education and curriculum	Sexual health	The article describes the process of adapting an existing program, "It's Your Game: Keep it Real" (IYG), to the local context, through pilot sessions with students and measurement of acceptability, understandability, credibility, ease of use, and motivational appeal.
69	Fernandez-Santos DM, Miranda-Diaz C, Figueroa-Cosme WI, et al. (2015)	Impact of ASUMA intervention on HIV risk behaviors among Puerto Rican adolescents	Puerto Rico 135 public and private junior high school students	Health education and curriculum Student and community participation	HIV/STI	An intervention consisting of workshops with students and parents. During the final year of the three-year invention, a higher proportion of students in the control group reported using alcohol and cannabis and having sexual intercourse compared to the intervention group.
70	Francis M, Nichols SDS, Dalrymple N. (2010)	The effects of a school-based intervention programme on dietary intakes and physical activity among primary-school children in Trinidad and Tobago	Trinidad and Tobago Sangre Grande district 12 primary schools	Health education and curriculum Healthy and safe learning environment	Nutrition Physical activity	A short-term, multi-component intervention consisting of education, screening, and increased physical activity was associated with higher knowledge scores and lower intake levels of fried foods and snack foods high in fat, sugar and salt and sodas. But the intervention was not significantly associated with changes in physical activity.

	AUTHORS (YEAR)	TITLE	LOCATION AND POPULATION	DEFINITIONS AND CONCEPTS OF SCHOOL HEALTH AND HPS	HEALTH TOPICS	RESULTS AND CONCLUSIONS
71	Nichols SDS, Francis MP, Dalrymple N. (2014)	Sustainability of a curriculum-based intervention on dietary behaviors and physical activity among primary school children in Trinidad and Tobago	Trinidad and Tobago Sangre Grande district 579 students from five primary schools	Health education and curriculum	Nutrition Physical activity	A brief curriculum-based intervention on dietary behavior, physical activity, and knowledge to assess the effectiveness of such an intervention for improving long-term knowledge, attitudes, and behaviors related to better dietary and activity habits. The intervention showed effects in improving knowledge and awareness; lower levels of intake of fried foods and soda were noted. There was no significant long-term effect on the level of physical activity.
72	Springer AE, Harrell MB, Martinez Gomensoro L, et al. (2019)	Activate Ya! Co-learning about school-based tobacco prevention and physical activity promotion in secondary school students in Uruguay	Uruguay 654 students from 16 secondary schools	Health education and curriculum Healthy and safe learning environment	Tobacco	This was a one-year intervention that included a classroom-based curriculum, activity breaks, and an after-school program. Although positive intervention effects were found for selected psychosocial outcomes, follow-up measurements found no impact on prior-year smoking and smoking susceptibility.

Annex 3
Existence of national standards, by country, for priority topics




MEX
COL
HON
PAN
PER
PAR
ARG
BOL
DOR
BAR
ANT
SUR
BVI
T&T
GUY
BRA
BEL
HAI
Physical accessibility (disability)
Hygiene
Waste management
Spaces for sports and physical activity
Emergencies and natural disasters
Protection from road traffic
Nutrition/ dining and/or food kiosks
Country has standards
No standards
Not sure
No response

Annex 4
Development or revision, by country, of policies or standards for the content of instruction on priority topics in the past two years


MEX
COL
HON
PAN
PER
PAR
ARG
BOL
DOR
BAR
ANT
SUR
BVI
T&T
GUY
BRA
BEL
HAI
Infectious disease prevention
Immunization
Hygiene
Accessing health information
Life skills (e.g., interpersonal communication, decision-making, goal-setting, advocacy)
Physical activity and fitness
First aid
Yes
No
Not sure
No response

This report presents the results of a regional assessment of the status of school health and the health-promoting schools (HPS) approach conducted jointly by PAHO, UNESCO, UNICEF, and the World Bank during 2018-2019. The objectives of the assessment were to: 1) assess the context and broader policy environment of school health in the LAC region, including legislative frameworks; 2) identify the scope and form of school health programs and services available in the region, as well as opportunities for improvement; and 3) enable countries to share with each other their best practices and the lessons learned in developing and implementing school health policies, programs, and services. The assessment results also serve as a regional baseline for the initiative, launched in 2019 by WHO and UNESCO, to make every school a health-promoting school. The results of this assessment are expected to contribute to strengthening the HPS approach in the LAC region on subnational, national, and regional levels, and to help accelerate progress toward achieving the SDGs for all children and adolescents in the region. This assessment was conducted before the COVID-19 pandemic. The impact of the pandemic has underlined the prominent role and multiple benefits of schools as an environment for equitable protection and promotion of the health and well-being of children and adolescents during the pandemic and in the recovery phase.

PAHO
Pan American Health Organization
World Health Organization
Regional Office for the Americas
www.paho.org