

Review Article



# Healthier School Systems for Learners: Government Role in Fostering Holistic Interventions

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## Abstract

**Background:** School health is a key component of school reform, and it is essential to address health issues that are relevant to education and incorporate key actors such as the government and other relevant stakeholders. This review article aimed to examine the role of governments in fostering healthier school systems for learners.

**Methods:** This paper examined existing literature, policies, and programs and identified effective approaches to promoting holistic well-being within educational settings. Scientific databases, including Google Scholar, PubMed, and Web of Science, and the websites of international organizations including the WHO, UNESCO, and UNICEF were searched.

**Results:** Through case studies and best practices from different regions including Nepal, Japan, United Arab Emirates, Ghana, and Kenya, this review illustrated the potential impact of government-led initiatives in promoting school health. In this regard, health impact assessment can help policymakers understand the health implications of their policies and identify ways to improve health while minimizing harm. The government's role includes enactment and assessment of policies that improve school programs, establishing accountability and regulatory framework, facilitating decision-making, collaborations with other stakeholders, and coordination.

**Conclusion:** This article provided insights and recommendations for policymakers seeking to prioritize the health and development of students in their jurisdictions. Implementing the school health program is essential for achieving both the nation's goal of health for all and the sustainable development goals.

**Keywords:** School health, Health policy, Health promotion, Health impact assessment, Health education



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## Introduction

According to estimates, 1.2 billion children (18% of the world's population) are currently enrolled in schools worldwide, and this number is expected to rise particularly in Africa; however, global school enrollment rates are declining (1). Schools have a significant impact on both the health and educational outcomes of people, as well as their future well-being and economic output (2). Numerous schools are run without any protections for school health, putting students' health at risk (3). Healthier children learn better, and conversely, more educated adults live longer, healthier, and more prosperous lives (4,5).

Although education is an effective instrument in molding the lives of young people, school systems all over the world struggle with major issues. More precisely, children learn better if they are not undernourished, hungry, scared, worried, hyperactive, drowsy, sedentary, depressed, using drugs or alcohol, pregnant, ill, injured, or disabled, absent, acting out, dropping out, requiring medicine, or in need of medical or dental care (5,6). Equally, adults with less education are also more likely to adopt unhealthy lifestyles, deal with psychological distress more frequently, experience more illnesses and disabilities, have fewer healthy children, bear high costs of medical care, have low



productivity at work, earn less, live shorter lives, and die younger (5).

As a result, addressing health issues that are relevant to education and incorporating key actors such as the government and other relevant stakeholders are crucial components of school reform efforts (7). This can be attained through health impact assessment (HIA). HIA is a tool used to evaluate the potential health effects of a policy, program, or project before it is implemented (8,9). In the context of this review, HIA could be used to assess the potential impact of government interventions on the health and well-being of students within the school system. This could involve examining how various aspects of the interventions might affect factors such as nutrition, physical activity, mental health, and social relationships among students (10,11).

Governmental awareness-raising and support of school health, as well as coordination between the Ministries of Health and Education, are becoming increasingly important and should be handled by the government's different authorities. Governments are automatically accountable for safeguarding the health of their constituents, especially children in school because that stage of development is crucial and calls for special attention. Most governments across the world, notably in low- and middle-income nations, have paid little attention to it and disregarded the response to properly implementing and incorporating school health program (4,12). However, both low- and middle-income countries (LMICs) and high-income countries experience challenges with a lack of human resources, poor coordination, inadequate funding, low levels of community involvement, inequity, and inadequate policies to support the services, which are widespread (12). In light of this, this review article aimed to examine the role of governments in fostering healthier school systems for learners. Through a comprehensive exploration of the subject, this article aimed to provide insights and recommendations for policymakers seeking to prioritize the health and development of students in their jurisdictions.

### Materials and Methods

This is a narrative review article. By analyzing existing literature, policies, and programs, this paper sought to identify effective approaches to promoting holistic well-being within educational settings. The original research articles published until February 2024 were reviewed without time limit. We searched the following electronic databases: Google Scholar, PubMed, and Web of Science. In addition to the original research, this narrative review also included grey literature and reports developed by international organizations, including the World Health Organization (WHO), the United Nations Educational, Scientific and Cultural Organization (UNESCO), and the United Nations Children's Fund (UNICEF) as well as papers chosen from the references of retrieved articles. Searches were conducted using the following keywords:

“school health”, “education”, “health education”, “health policy”, “health impact assessment”, “government role” and “healthy schools”. English language publications assessing the association between education and health were included.

### Results

#### *Global Health Challenges for School Children*

School-aged children around the world suffer from a number of preventable communicable and non-communicable diseases (NCDs). The major cause of communicable illnesses, including poor dental hygiene (cavities and caries), skin conditions, and worm infestations, is poor personal hygiene and sanitation habits brought on by a lack of information and resources (13,14). In light of all these communicable diseases, respiratory illnesses and diarrheal diseases are the leading killers of young infants (15,16). Frequent illnesses caused by unhygienic behaviors impair children's cognitive abilities and have an adverse effect on their performance in school. The combined burden of malnutrition, or obesity and underweight among children of school age with non-communicable illnesses is a significant worldwide health problem (17).

Furthermore, NCDs are becoming a significant worldwide public health problem for individuals of all ages and social levels. In 2012, they were responsible for 38 million fatalities, and by 2030, that figure is predicted to increase to 52 million (18). Many school-aged children (6-10 years) face neurodevelopmental, behavioral, or emotional difficulties (19,20). During the COVID-19 pandemic and lockdown, many of these children with special needs, including those with autism, attention deficit hyperactivity disorder, cerebral palsy, learning disabilities, developmental delays, and other behavioral and emotional issues, faced hurdles (19,20). The unmet requirements for wellness and assistance for mental health among children and young people were made even more apparent by the COVID-19 pandemic (21). Obsessive-compulsive disorder (OCD) affects 0.25-4% of children and teenagers, according to estimates (22). Children with OCD are predicted to be most negatively impacted by this epidemic (22). These findings highlight the need to prioritize the health of learners in school systems.

#### *Health Provisions in School Communities and Government Efforts*

School health promotion is essential to quality education and sustainable development and it is best acknowledged by the WHO that every school should be a health promoting school (HPS) (23,24). Therefore, school health promotion is essential for achieving sustainable development goals and health for everyone (5). The idea of HPS is a whole-school strategy for promoting health and educational attainment in school communities by leveraging organizational capacity of schools to support the physiological, social-emotional, and psychological

conditions for health as well as for successful educational outcomes (23). The HPS approach and related whole-school health initiatives have improved student health, well-being, nutrition, and functioning (23,25). The Global School Health Initiative and the idea of HPSs were established by the WHO in 1995 (17). School health services, health promotion, a healthy school environment, and relationships between the school, home, and community are the four pillars of the school health program (26). According to WHO and UNESCO, school health services include assessing students' health status, treating minor illnesses, providing first aid and emergency care, controlling communicable diseases, promoting sanitary conditions, offering counselling services, offering nutritional programs, providing an adequate number of health personnel, and encouraging students to correct remedial deficiencies (27).

In a healthy school environment, daily activities that improve students' emotional, physical, and social well-being also benefit the school community (26). The School Health Nutrition (SHN) program is a crucial component of HPS, and many nations have embraced it to enhance health through education (17,28). In this regard, a study conducted by Shrestha et al revealed that the SHN program faces challenges in Nepal, just as is does in other geographic contexts, due to a lack of coordination between stakeholders, a lack of financial, human, and material resources, a lack of training opportunities, and the sustainability of the program (29). Recognizing these challenges, governments around the world are increasingly focusing on implementing holistic interventions within school systems to support the physical, mental, and emotional health of learners. Numerous countries across the world have supported and implemented school health programs. To illustrate the effectiveness of holistic interventions in promoting learner health, it is instructive to examine case studies and best practices from different regions.

In the last 20 years, Japan and South Korea have experienced great improvement in the health of school children through multisectoral and governmental efforts, emphasizing the role of community partnerships involving local health authorities, non-profit organizations, and parent-teacher associations (28,30-35). The majority of school health initiatives in Japan are government-led and involve the Ministry of Health, Education, Labor and Welfare, Economy, Trade, and Industry (36). A notable initiative is the school health checkups/school health examination survey, which has been conducted annually since 1900 (33,37). The program involves comprehensive health screenings for students, including physical examinations, vision and hearing tests, and assessments of growth and development. These screenings help identify health issues early, enabling timely intervention and support for students. In this regard, Japan boasts one of the lowest obesity rates among school-aged children globally considering mandatory physical education and

health school nutrition (38-41).

Across the Middle East, the United Arab Emirates, Jordan, and Qatar are stellar examples of countries that have adopted holistic approaches to health for school children (42-45). The school health program (especially "Schools for Health" in Abu Dhabi) and the healthy eating program implemented by the UAE government promote school health (46,47). These initiatives provide comprehensive health screenings, vaccinations, and health education to students across public and private schools (44,48). Similarly, across Sub-Saharan Africa, the governments of Kenya and Ghana promote health and well-being in schools through school health policies and programs, deworming campaigns, and nutrition programs (49-53). The Ghana School Feeding Program (GSFP) provides nutritious meals to school children, particularly in rural and deprived communities, to improve nutrition and enhance educational outcomes. Through collaboration between the government, non-governmental organizations (NGOs), and community stakeholders, the program has expanded to reach over 2.8 million children across the country (49,51,52).

These case studies demonstrate the potential impact of government-led initiatives in promoting holistic well-being within school systems. By investing in the health and well-being of students, governments can lay the foundation for a healthier and more prosperous future for all. According to the case studies conducted by the WHO among selected LMICs, many nations do not fully implement school health initiatives, and many more nations are still in the early stages of implementing school health despite the fact that the idea was developed in 1890 (54).

## Discussion

Health outcomes, especially in children, have a complex mix of drivers. Health, especially in school children, is profoundly influenced by system capacities and the prioritization of these age groups. Social determinants have been considered integral in early life development (41). They influence health awareness, access, and dietary patterns which suggest opportunities for future health outcomes; and environmental exposures that modulate health development; as well as risk exposures to diseases and injuries. In children, health habits may be established and continue to adulthood. The education component is integral as it has been assessed to be a more significant predictor of the onset of health problems than income in children (55).

The requirement for multisector stakeholder engagement in designing and implementing interventions that drive children's health outcomes has long been established (56-58). As cooperation between education and health should be strengthened, there is a need for better alignment and integration between these two domains. The governmental role in fostering holistic interventions can be highlighted using a HIA perspective.

HIA, successfully implemented in various fields, can facilitate collaboration between diverse stakeholders to enhance the holistic well-being of students, their families, and communities. First, government at all levels, policy stakeholders, and local and international partners should rise to this challenge for future security. Policy intentions and decisions should translate into the practice of challenging existing institutional exclusions, inequalities, and historical biases that are entrenched in health delivery (59). School health promotion stems from the design of sustainable interventions that ensure adequacy and equity in access and quality and optimize the health outcomes of children. These optimal health outcomes will translate to health development into adulthood.

Second, assessment represents an integral step in development. This will enable the enactment of policies that improve school programs and the environment and develop improvement plans. Local school health and education indices designed by governments in partnership with school health and education experts, school administrators, health and education agencies, and stakeholders such as aligned NGOs are important measures. These indices can draw on already existing indices such as the School Health Index (SHI) and the Health Education Curriculum Analysis Tool (HECAT) that were developed by the United States Center for Disease Control and Prevention (CDC) and utilized in the United States (60,61). These indicators hold ground for the quality, efficiency, and overall effectiveness of schools. They encourage the identification of gaps, show progress across several aspects, and encourage support and collaboration. Therefore, these indices should not only extend beyond quantitative measures but also capture qualitative and observational data.

Third, the roles of government must transcend beyond the perfunctory accountability and regulatory framework to facilitate decision-making among health policy and system actors. The goal should not just be to increase health access to schoolchildren or make education more affordable. This fundamental change should create a system that breaks down the barriers to optimal education and health outcomes. Therefore, this will also involve the assessment of educational programs and policies to ensure that health priorities are incorporated. Childhood obesity and malnutrition present an opportunity for schools to improve the health of schoolchildren and promote physical activity and healthy eating at a young age. Investing in research to develop health school recommendations to address healthy eating and physical activity will be vital. This recommendation will require implementation support from local and international partners and financial investment institutions, especially in LMICs. School curricula have to be progressive to provide adequate health and holistic education. Content regulation is essential for focusing on scientific guidelines for health promotion and healthy living. Quality of care is also vital for maintaining children's health.

Fourth, technologies for global health should be integrated for intervention delivery to school children. With the increasing potential and development of mobile technology and the Cloud, technology holds great promise to improve children's health and educational capacity, especially in low and middle-income countries. Health interventions should be founded with the aim of supporting school health behaviors and promoting holistic education for development. Governance must be implemented from a place of affirmed equity and justice.

### Limitations of the Study

Our study is not free of limitations. The first limitation is the subjective nature of the search methodology in narrative review and the potential selection bias of the publications. The second one is that PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-analyses) guidelines were not used in the study.

### Conclusion

Prioritizing the promotion of students' health in schools is the key to achieving high academic accomplishment in education and sustainable growth. Therefore, implementing school health is essential for achieving both the nation's goal of health for all and the sustainable development goals. Making health care more accessible to schoolchildren and making education more inexpensive should not be the exclusive objectives. This fundamental shift should produce a framework that removes obstacles to the best possible outcomes in terms of education and health. Moreover, in order to support decision-making among actors in the health policy and system frameworks, government roles must go beyond just accountability and regulatory framework. In this regard, the model of HIA can help policymakers understand the health implications of their policies and identify ways to improve health while minimizing harm. As stated in this article, this promotes healthier school systems for students. Policies must be backed up with efficacious implementation to achieve outstanding and sustainable results.

### Authors' Contribution

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None.

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