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BUILDING HEALTHY SOCIETIES

A FRAMEWORK FOR INTEGRATING HEALTH AND HEALTH PROMOTION INTO EDUCATION

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ONE WORLD
OUR HEALTH 

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WISH 2020 Forum on the Role of Schools
in Child and Adolescent Health

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FOREWORD

At no time in recent history has the vital role of school systems been so sharply in focus. At the height of the COVID-19 pandemic, over 90 percent of students worldwide – more than 1.5 billion children – were out of school, as 188 countries implemented country-wide closures of all educational institutions.¹ These widespread school closures contributed to slowing the spread of the virus. However, governments must balance the uncertainty and risks of reopening schools against the clear harms associated with prolonged closure. This disruption inevitably led to a range of adverse effects on the delivery of education and highlighted how the school system contributes to the health and wellbeing of children and young people.

Health and education are inextricably linked. Education is widely accepted to be one of the key social determinants of health, while good health is linked to greater educational attainment, employment and productivity. Globally, governments and the private sector invest heavily in education, and there is overwhelming evidence that this investment benefits the health of individuals and society more broadly through the cultivation of productive workers. Expansion of education, particularly for girls, is one of the most effective ways that nations can improve the health of children and young people, and support the adults they will become.

Despite this, health is rarely integrated into the educational system in an effective or substantive way, and vice versa. Efforts to include health are often gradual or added on to existing school curricula. Education is a key element of wellbeing frameworks, yet is frequently neglected in health systems. Educational success is primarily measured by how well children perform on standardized tests, rather than by more holistic or inclusive measures – though the Organisation for Economic Co-operation and Development (OECD) Program for International Student Assessment (PISA) now includes a focus on students' wellbeing. This narrow and disjointed approach misses an opportunity for mutual benefit to both the education and health sectors.

This report complements outputs from the Qatar Foundation's sister initiative, the [World Innovation Summit for Education \(WISE\)](#), and proposes a framework for integrating health and health promotion into education systems. It concludes with a number of recommendations – spanning

the international, national, and local school system levels – to maximize the impact of schools on the health and wellbeing of children and young people. Implementing this guidance will directly benefit our children, and also contribute to a healthier, more productive society.



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**Professor the Lord Darzi of Denham,
OM, KBE, PC, FRS**
Executive Chair, WISH, Qatar Foundation
Co-Director, Institute of Global Health
Innovation, Imperial College London



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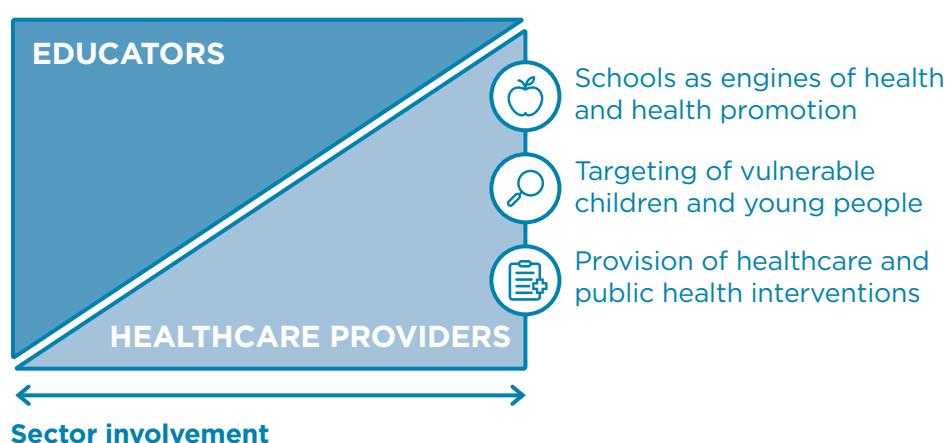
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EXECUTIVE SUMMARY

As a society, we have a duty to safeguard the health and wellbeing of children and young people. While the determinants of health are complex and span multiple sectors, it is clear that education is a key social determinant of health. Healthy children and adolescents go on to achieve greater educational attainment and productivity later in life. Yet health and education remain largely isolated, with health and health promotion efforts in schools often seen as gradual additions rather than integral to the core mission of education.

This report makes the case for integrating health and health promotion activities into education systems. It presents a framework for achieving this across three dimensions:

Figure 1. Opportunities for action in the school environment



Schools as engines of health and health promotion

Education is often referred to as a 'social vaccine' for a range of health conditions. In school, children gain social, psychological, and higher-order thinking skills, which are all linked with improved health. Children also learn directly about health and healthy behaviors. The way that schools operate and their engagement with students – known as 'school environment' or 'school culture' – also directly influence students' health and wellbeing.

Targeting vulnerable children and young people

Many health conditions can be better managed or prevented if detected early. Schools provide a platform for the identification of problems in school-age children. The school environment provides an opportunity for targeted interventions across a range of conditions, including autism, diabetes, obesity and mental ill health.

Provision of healthcare and public health interventions

Schools provide an opportunity for direct provision of healthcare and health promotion activities. Examples include water, sanitation and hygiene (WASH) education initiatives, vaccine provision, and school nurse/clinician roles. International case studies illustrating some of the innovative solutions currently in practice are presented throughout the report.

We explore four key tools policymakers can use to implement the framework to achieve widespread integration of health and health promotion in schools:

1. Consensus on the goal of education
2. Buy-in from sectoral/departmental leadership
3. Training
4. Cross-sectoral collaboration and understanding.

Building on these key tools, we conclude with a set of policy recommendations and actions that policymakers and stakeholders can take – from international organizations to local school governance structures:

1. International actions:

- Contribute to the creation of a ‘common language’ framework to enable collaboration and understanding across different policy domains
- Strengthen school nursing and school health professions
- Develop a clearinghouse of effective health interventions and practices for schools.

2. National actions:

- Launch a ‘national child strategy’ that has cross-cutting priorities for health and wellbeing
- Develop and deploy a health and risk factor survey, conducted annually or at each school transition period

- Include health metrics as part of school performance indicators
- Support the cross-training of teachers and health providers
- Implement the global standards for health-promoting schools.

3. School and local governance actions:

- Strengthen the visibility or position of health within school governance structures
- Engage with parents and caregivers to gain support for health initiatives
- Support the implementation of national strategies and initiatives.

SECTION 1. BACKGROUND AND SCOPE

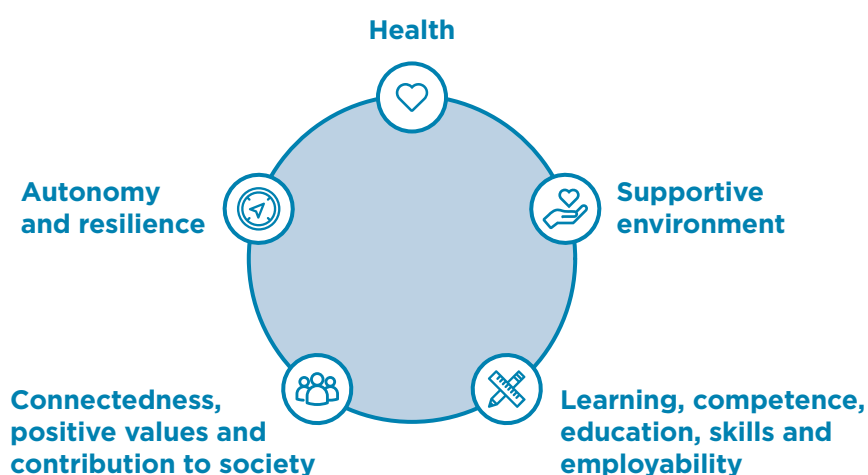
Defining health and wellbeing

The World Health Organization (WHO) defines health as:

A state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.²

There is widespread consensus that the absence of physical ill health does not equate to 'good health'. For children and adolescents in particular, health should not be viewed in isolation, but rather as a key component of overall wellbeing. Education is also a key part of wider wellbeing frameworks. WHO has recently proposed five domains of adolescent wellbeing (as shown in Figure 2).

Figure 2. Domains of adolescent wellbeing



Source: Ross et al. (2020)³

This paper has a strong focus on the role of schools in affecting the physical and mental health of children and adolescents. However, the domains of adolescent wellbeing – as described in Figure 2 – are inextricably linked and should be considered as part of any policy solution.

Each area presents an opportunity for improvement and intervention.

Determinants of health

It is well documented that the provision of high-quality healthcare in isolation does not guarantee a healthy population. Rather, social determinants of health – spanning economic stability, education, social and community context, and neighborhood and built environment – play a key role in influencing health and wellbeing outcomes.⁴ These factors are perhaps even more influential when considering the overall health of children and young people, as they undergo significant physical and psychological changes as they transition from childhood to adolescence to adulthood.^{5,6}

Social determinants of health are complex and often interlinked; there are no easy or simple policy solutions to comprehensively address them all.⁷ Health and wellbeing are influenced by factors throughout a child's life, and we acknowledge that learning also occurs in non-school settings. However, there is a widespread recognition of the role that schools play in the health and wellbeing of students, and a burgeoning consensus that child health should be included in the core mission of education.

This paper explores how the school system can influence and improve the mental and physical health and wellbeing of children and adolescents, as further defined below.

Defining our scope

Whole-school approach

When discussing the role of schools in promoting health, this report takes a whole-school approach. Rather than focusing narrowly on the curriculum, this approach encompasses all aspects of the school environment, including engagement with parents, carers, and the wider community to promote wellbeing, based on evidence that this approach is effective.^{8,9,10}

Education setting

While all levels of education play an important role in determining health, this report focuses specifically on primary, lower secondary and upper secondary schools – as defined by the United Nations Educational, Scientific and Cultural Organization (UNESCO) International Standard Classification of Education (ISCED 2011) – primarily covering children and adolescents aged around 5 to 19 years old.¹¹

Most countries provide free – often compulsory – universal primary and secondary education. These schools are typically governed and guided by national-level policies, making this report’s policy recommendations widely applicable to most countries. As students mature, this setting also encompasses a number of developmental and transitional milestones, providing important opportunities for interventions.

This should not diminish the impact of other education levels on health. Pre-primary education has consistently shown high rates of returns for future educational attainment as well as an array of social outcomes.^{12,13} Similarly, there is significant evidence linking completion of tertiary education with better health and longer life.^{14,15}

Health outcomes

This paper primarily focuses on the role of schools in improving the mental and physical health and wellbeing of children and young people, as per WHO’s definition above, during their time in primary and secondary school. While the life course approach is important to consider, particularly when examining the economic case for investment, it is not our primary focus.

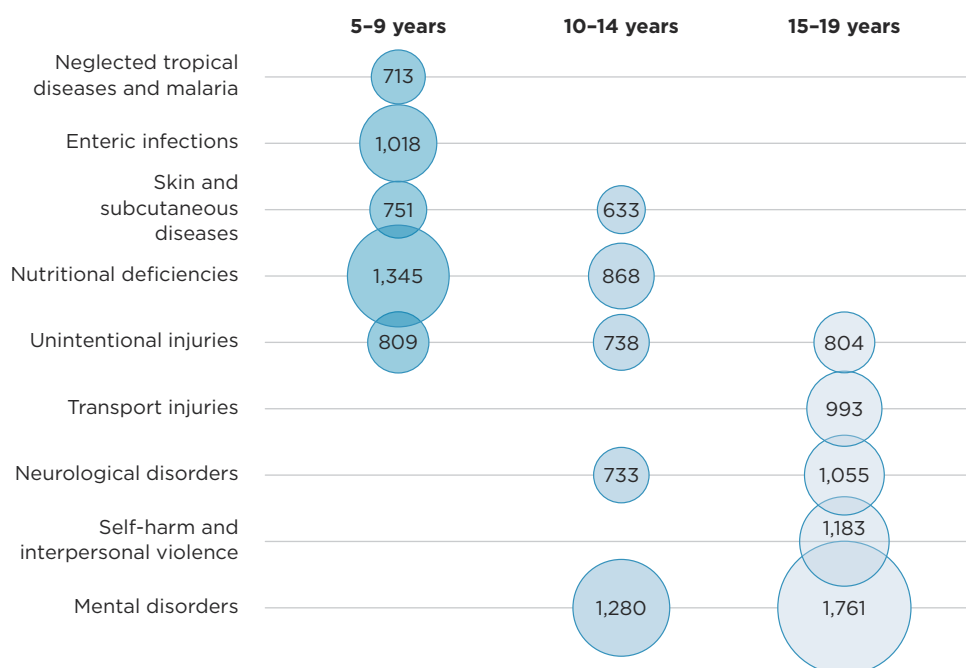
Similarly, the health of teachers and other actors in the school environment is outside of the scope of this report.

SECTION 2. A CALL TO ACTION FOR BETTER INVESTMENT IN HEALTH

As direct healthcare expenditure is weighted toward adults and the elderly, the education sector is the primary venue for investing in children and adolescents in most countries. Education benefits the health of individuals and society as a whole. Increased government investment in this area will improve the health of children and young people as they mature into adulthood and beyond.

We spend around \$7.8 trillion annually on health, though health expenditures tend to be disproportionately skewed toward adults and the elderly.¹⁶ Across the Republic of Korea, the Netherlands, and the Czech Republic, for example, health spending on children and adolescents aged 5 to 19 years accounted for 6.7 to 8.1 percent of total health spending, despite this group accounting for 15 to 19.1 percent of the population.¹⁷

Figure 3. Top causes of the global disease burden by age group, 2017 (disability-adjusted life years (DALYs) per 100,000 population)



Source: Global Health Data Exchange (2020)¹⁸

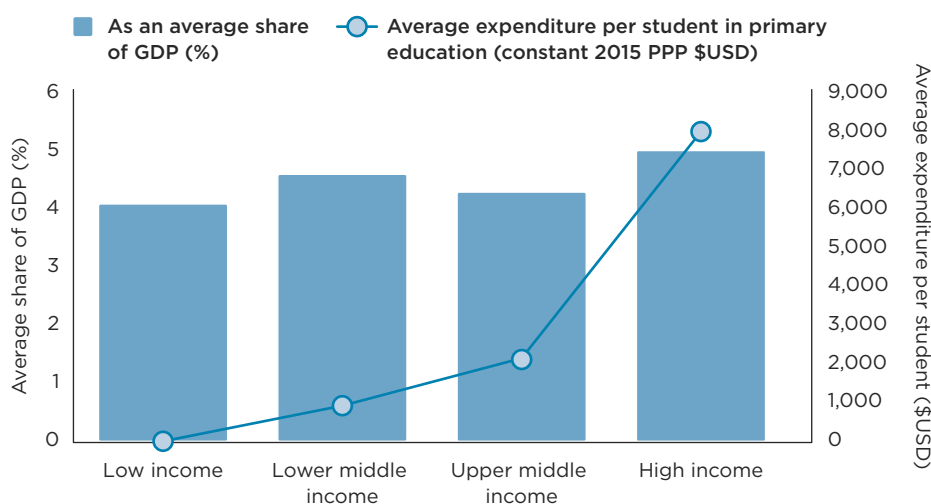
Not investing enough in children's and adolescents' healthcare has a measurable cost to society. Disability-adjusted life years (DALYs) are a common way to measure and compare the burden of disease. This measure accounts for years of life lost due to early mortality, as well as

healthy years of life lost due to ill health or disability.¹⁹ Figure 3 lists the top causes of the global disease burden for children and adolescents, aged 5 to 19 years.

The top contributors to disease burden shift as children age into adolescence. The school environment provides an opportunity for early detection and targeted interventions across a range of these conditions, particularly those related to nutrition, hygiene and mental health.

Globally, we spend around \$4.7 trillion on education each year, with governments accounting for 79 percent of total spending. While public education expenditure as a share of gross domestic product (GDP) is relatively consistent across income groups (between 4 and 5 percent), actual expenditure per student in primary education is dramatically different, with high-income countries spending more than 40 times what is spent in low-income countries (see Figure 4).²⁰

Figure 4. Public education expenditure by country income group



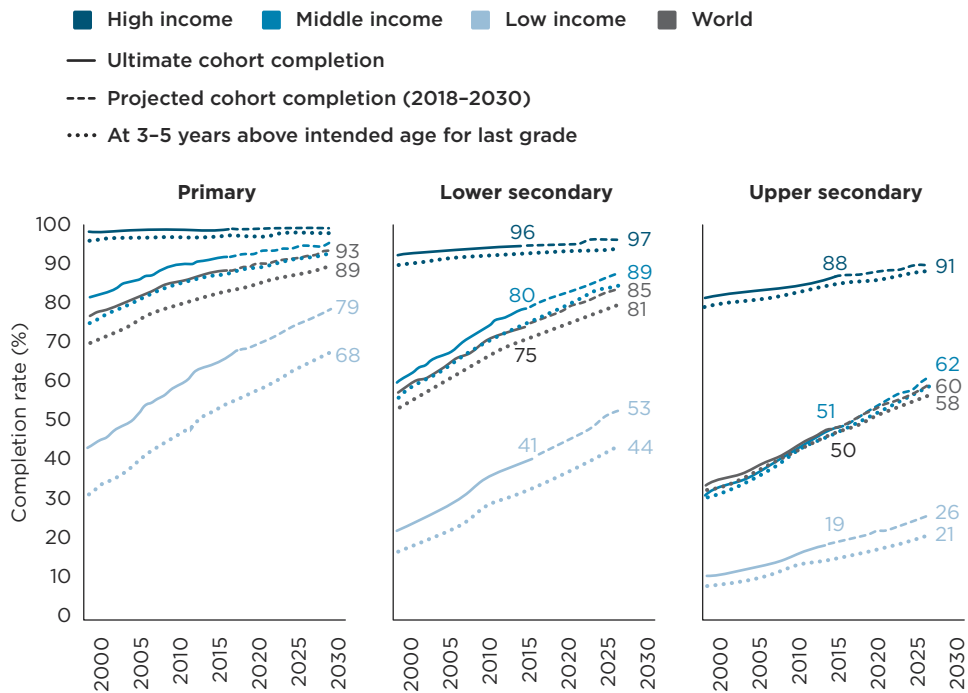
Source: UNESCO (2019)

PPP: Purchasing power parity

Note: Data is from 2017 or the most recent year where 2017 figures were unavailable.

Disparities in funding are reflected in completion rates. Figure 5 shows that variations across economic quintiles are significant across all levels, with nearly 30 percent of the poorest children aged 12 to 14 having never attended school at all.²¹

Figure 5. Primary and secondary school completion rates by country income group, 2000–2018 and projections to 2030



Source: UNESCO (2019)

Children also spend many of their waking hours in schools. In OECD countries, for example, students spend an average of 7,590 hours in the classroom over 8–10 years during primary and lower secondary school. This time ranges from a low in Hungary of 5,972 hours to a high of 11,000 hours in Australia; though there does not appear to be a strong correlation between hours in the classroom and country-level economic indicators, such as GDP per capita.^{22,23}

This prolonged contact gives schools a unique opportunity and responsibility to educate our children, but also prepare them to be productive members of society.

Box 1 highlights the importance of improving the links between health and education during the COVID-19 pandemic.

Box 1. COVID-19 and the effect of school closures on child health

At the peak of the COVID-19 pandemic, 1.5 billion children and adolescents were out of school, representing an unparalleled public crisis. While there is much debate on the effectiveness of closing schools in fighting the wider pandemic – much of it based on limited evidence – and on the best path to reopening schools, the closure of schools is undoubtedly harming the health and wellbeing of young people.

Though the evidence is still developing as this paper goes to print, school closures affect children's health in a number of ways:

- **Anxiety, depression and mental distress:** While there is little evidence on potential long-term mental health effects, there is evidence of short-term mental distress, particularly for adolescents undergoing life transitions. Cancellation of final exams, graduation ceremonies, and internships for secondary school students are leading to increased anxiety among this group. Social distancing can also lead to feelings of social isolation among children of all ages, particularly in households where primary caregivers work full time or are frontline workers who may isolate from their families to decrease the risk of virus transmission.
- **School-provided health services:** The provision of health programs has been heavily disrupted, and children who receive health services at school may have no alternative provider. Large-scale programs such as mass drug administration for worm infection for one billion school-aged children, primarily in lower- and middle-income countries, were halted. Some mental health services – including peer groups and one-to-one counseling sessions – have been canceled, and online or phone alternatives are not always possible.
- **Disruption in physical activity and routine:** For many children, school closures and lockdown have increased levels of physical inactivity, led to increased time spent on smartphones or in front of the television, and disrupted regular sleep patterns. These changes have both physical effects, in terms of cardiorespiratory fitness and weight, as well as compounding mental stress.
- **School-provided nutrition:** Millions of children depend on free or subsidized school meals to receive adequate nutrition. Many are at risk of going hungry without school meals. Other children may not

have access to nutritious foods. Combined with lower physical activity levels during lockdown conditions, this could lead to an increased risk of obesity.

- **Services for students with special needs:** Interrupting speech therapy, social skills training, and other education for special needs children can exacerbate behavioral problems, heighten stress, and stall progress in developing essential skills.
- **Water, sanitation and hygiene (WASH) services:** Children without access to sanitation in the home environment are put at further risk of communicable diseases and ill health, particularly for children in overcrowded housing or those experiencing homelessness.
- **Maltreatment:** School closures and lockdown conditions increase numerous risk factors for maltreatment of children. Extreme stress can lead to heightened levels of substance abuse and domestic violence. Children also become less likely to have contact with supportive adults outside of the home or those who might recognize danger signs. In many countries, schools form an important part of child protective services. During the COVID-19 lockdown, many child protection services have struggled to maintain service levels.
- **Dangers of the digital environment:** With many schools moving instruction at least partially online, children are spending more time – potentially unsupervised – on the Internet. This opens them up to cyberbullying from other children, as well as the potential for predatory behavior from adults.

COVID-19 has foregrounded the key relationships of health and education through schools. The full extent of the health effects of these mass school closures will not be known for some time.

Sources: OECD, 2020;²⁴ UNESCO, 2020;²⁵ Lee, 2020;²⁶ Viner et al. 1 May 2020;²⁷ Ghosh et al. 2020;²⁸ Viner et al. 3 August 2020²⁹

The case for investing in health and education

Table 1. Key phases of child and adolescent development

Phase (Period)	Developmental importance	Examples of interventions
Middle childhood growth and consolidation (Ages 5 to 9 years)	Steady physical growth of the body while sensorimotor brain function develops; nontrivial risk of death; some catch-up growth possible	Infection control, diet quality, and promotion of health behaviors and wellbeing
Early adolescence (Ages 10 to 14 years)	Rapid physical growth, attaining growth velocities not seen since age 2 years, and rapid growth of centers for emotional development; main phase for remedial catch-up growth	Age-appropriate variants on above, plus vaccination, structured physical exercise, and promotion of healthy emotional development
Late adolescence (Ages 15 to 19 years)	Consolidation of physical growth and especially of links in the brain; risk-taking behavior associated with socioemotional development; last chance for remedial growth in height	More focus on reproductive health, incentives to stay in school, protection from excessive risk-taking, and early identification of mental health issues

Source: Adapted from Bundy et al. (2018)³⁰

There is widespread commitment to invest in the health and education of our children and young people. There is increasing recognition of the importance of the first 8,000 days after birth, in which children develop into productive adults and potential parents. Recently there has been a strong focus on the first 1,000 days as the key window for intervention and investment.³¹ While this time is crucial for development, it is essential that policymakers and governments invest in interventions in the remaining 7,000 days to create a developmental continuum across the first two decades of life.^{32,33} (See [WISH 2016 Investing in Health Report](#) for further information.) Table 1 highlights the key developmental stages during these ages, as well as examples of school-based interventions to improve child and adolescent health at each stage.

See [WISH 2016 Investing in Health Report](#), page 10.

Short-term returns

During primary and secondary school, children and adolescents undergo key developments and transitions during which education can have the biggest impact on health – both in the short term, during childhood and adolescence, and in the longer term, future health in adulthood.

Education helps students to develop their cognitive skills and gain the tools to make informed decisions.^{34,35} Schools directly provide health knowledge and more broadly promote healthy behaviors and the avoidance of risky or unhealthy behaviors.^{36,37} (See [WISH 2020 Mental Health and Digital Technologies Report](#) for additional case study.) Schools also have the opportunity to intervene in key risk issues such as substance abuse, depression, and sexual and reproductive health.^{38,39} School attendance is associated with better health during childhood and adolescence across high- and low-income countries, particularly in the areas of mental health, alcohol use, and sexual health. This benefit increases with participation in secondary school, as compared to primary school only.⁴⁰

Students also build socioemotional skills, including self-regulation, resilience, civics, and wider social skills; these in turn help young people to make healthier choices and follow a healthier lifestyle.^{41,42} The school environment also gives students access to different social support networks and, importantly for girls and young women, reduces early marriage and adolescent pregnancy.^{43,44} There is also evidence that staying in school reduces social contact with older acquaintances, which in turn has been linked to helping decrease the risk of HIV infection.⁴⁵

Worldwide – especially in low-income countries – schools are often used as platforms to deliver health interventions, such as school nutrition and deworming, that have direct and lasting health benefits.^{46,47}

Better health is also linked to improved school performance and attainment. Directly, ill physical health can lead to reduced attendance or drop-out rates, while physically healthy students have higher attainment.^{48,49} More broadly, there is evidence that students' wellbeing and social/emotional health boost attainment; social/emotional learning and mental health provision in schools are also linked to improvements in health and educational performance.⁵⁰

Long-term returns

Investment during childhood and adolescence leads to health, human capital, and socioeconomic gains throughout the life course in many ways: improved cognitive capacity, healthy choices, increased life span, and greater workforce productivity.⁵¹

Educated individuals live longer and have better overall health outcomes, especially relating to mortality, mental health, self-reported health, and obesity.^{52,53} Studies from the Netherlands have shown that individual financial returns to health from education are around 1.3 to 5.8 percent annually.⁵⁴ Benefits are even more pronounced for women: increased

education participation for women is estimated to have led to nearly 50 percent of the global improvement in child mortality since 1970.⁵⁵ Conversely, poor educational attainment is directly linked to ill health; one study estimates that lack of education directly contributes to 9 percent of US deaths.⁵⁶

Education also plays an important role in socioeconomic progress. Health in adolescence, combined with educational attainment, impacts on whether individuals effectively transition into the workforce when they leave school.⁵⁷ Mental health and wellbeing tools learned in school – such as resilience and teamwork – contribute to effective labor force participation, while healthy workers are shown to be more productive.^{58,59}

Education also benefits society more widely by increasing individuals' self-esteem, social skills, and civic engagement, and decreasing the likelihood of engaging in crime.^{60,61} In the US, for example, high school completion results in an estimated \$1,638 to \$2,967 per student per year in savings associated with reduced crime.⁶² Another study from England and Wales found that a one-year increase in average schooling levels reduced property crime by 20 to 30 percent and violent crime by up to 50 percent.⁶³ More broadly, civic behavior developed in schools has been shown to increase the levels of trust in society, which is linked to higher rates of economic growth and macroeconomic stability.⁶⁴

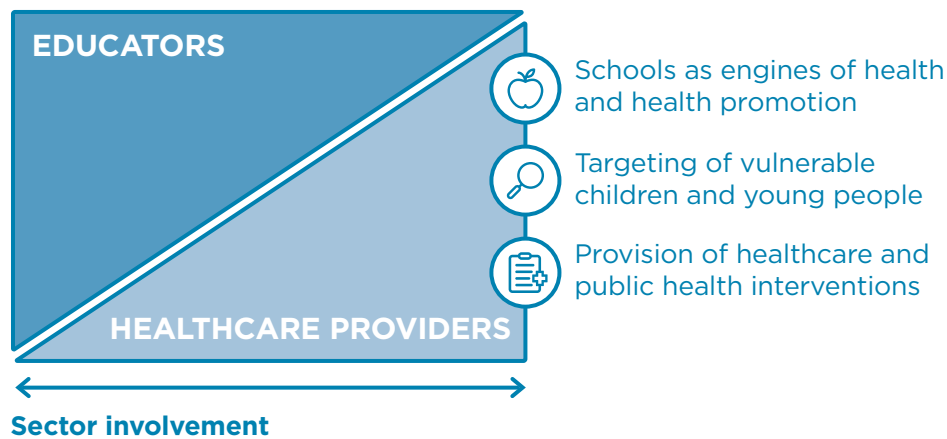
Challenges

Despite the synergies between education and health outlined above, most governments have yet to effectively integrate health and health promotion into schools. Governments continue to operate health and education budgets and policies in isolation, and often fear that burdening schools with responsibility for health will undermine the core education mission; yet evidence suggests that this is not the case.⁶⁵ However, there is a lack of evidence on the success and cost-effectiveness of these integrated interventions aimed at children and adolescents. There are many reasons for this, including diversity of programs, vastly different contexts across countries, difficulty in monitoring behavior change interventions (key for this age group), and insufficient long-term follow-up.⁶⁶

SECTION 3. OPPORTUNITIES TO INTEGRATE HEALTH AND EDUCATION

Globally there is growing recognition of the important role that schools can play in promoting the health and wellbeing of children and young people. In turn, this contributes to improved health outcomes, gains in educational outcomes, and downstream socioeconomic benefits. Based on the evidence, we believe there are three opportunities to integrate health and health promotion activities into primary and secondary education systems, as detailed in Figure 6.

Figure 6. Opportunities for action in the school environment



Close coordination between the health and education sectors is crucial for the successful delivery of these actions, though the level of direct involvement of educators and healthcare providers varies. In this section, we describe the opportunities for making impact in each of these areas, and highlight possible solutions and best practices – innovative case studies are presented – to maximize the health benefits for children and young people.

Level 1. Schools as ‘engines’ of health and health promotion

Education is often referred to as a ‘social vaccine’ for a range of health conditions. In school, children gain social, psychological, and higher-order thinking skills, which are all linked with improved health.^{67,68} Children learn directly about health and healthy behaviors, though evidence suggests that the health effects from this education are small to moderate.⁶⁹

To truly integrate health and health promotion, education systems must take a whole-school approach. WHO and UNESCO have promoted this approach for decades, and have identified six key pillars of health-promoting schools:⁷⁰

- Healthy school policies
- Healthy school physical environment
- Healthy school social environment
- Health skills and education (formal and informal curriculum)
- Links with parents and school community
- Access to (school) health services.

Several regions have made progress in encouraging health-promoting schools. The Ministry of Education, Culture, Sports, Science and Technology in Japan takes a holistic approach to education, promoting three pillars of ‘competencies for living’: solid academic ability, richness in mind, and healthy body.⁷¹ Taiwan has a national policy mandating that each school become health promoting.⁷² In Hong Kong, the Chinese University of Hong Kong Centre for Health Education and Health Promotion gives the Hong Kong Healthy Schools Award to schools that comply with a set of indicators across the six pillars of health-promoting schools.⁷³ Legislation in Sweden requires schools to include health promotion, but there are no specific criteria or guidelines for inclusion.⁷⁴

However, many countries have yet to successfully and systematically implement these principles at the national or subnational level.⁷⁵ To address this issue, WHO and UNESCO plan to publish the Global Standards for Health Promoting Schools in early 2021. These standards build on previous work outlining the adoption of the health-promoting school approach and the Focusing Resources on Effective School Health initiative to enhance the quality and equity of education. The standards will provide a clear framework for the health and education sectors to implement a successful health-promoting schools approach. They will provide guidance at the national and regional policy level, as well as support for implementing health and wellbeing policies at the school level, across each of the six key features of health-promoting schools.

Case studies 1 and 2 highlight two approaches to health promotion and wellbeing in schools in India^{76, 77} and Jordan.⁷⁸



CASE STUDY 1. STRENGTHENING THE EVIDENCE ON SCHOOL-BASED INTERVENTIONS FOR PROMOTING ADOLESCENT HEALTH (SEHER)

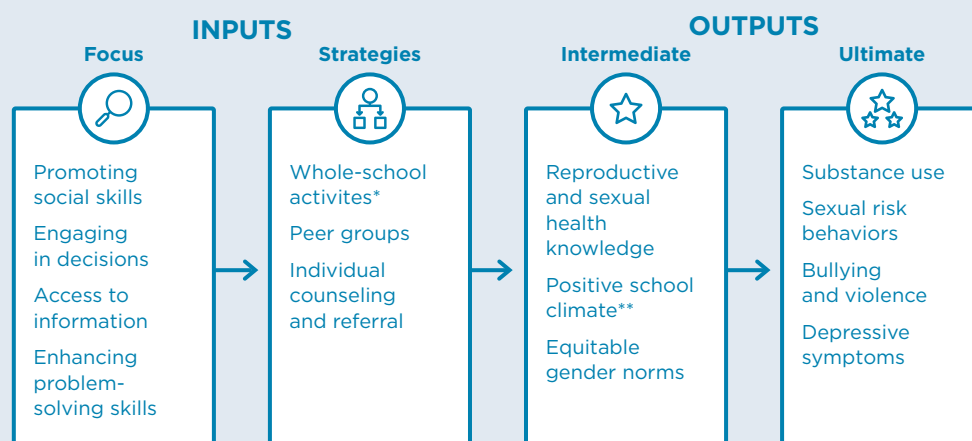
India

SEHER ('dawn' in Hindi) is a multi-component, school-based health promotion intervention aimed at secondary school students in the state of Bihar in north India. The Department of Education, Bihar, the London School of Hygiene & Tropical Medicine, and Sangath, an Indian non-governmental organization (NGO), partnered to develop and implement the intervention.

The program was delivered as part of a randomized controlled trial with three groups: control, receiving no intervention; SEHER delivered by a lay counselor; and SEHER delivered by a teacher within the school. After two years, students who participated in the program delivered by a lay counselor showed positive improvements in school climate, depression, bullying, attitude toward gender equity, violent victimization, and violence perpetration. These results were not achieved when the intervention was delivered by existing teachers. This should be considered when adapting or expanding the program.

Figure 7 provides an overview of the SEHER framework, including its primary areas of focus, strategies for delivering content, and ultimate program goals.

Figure 7. SEHER Framework



* Awareness generation activities, wall-magazine, competitions, speak-out box, school health promotion committee, and health policies.

** Improved school climate includes improved relationships among school community, a greater feeling of belongingness to the school, commitment towards positive educational values, and enhanced participation in school activities.

Source: Shinde et al. (2017)⁷⁹



CASE STUDY 2. NASHATATI PROGRAM

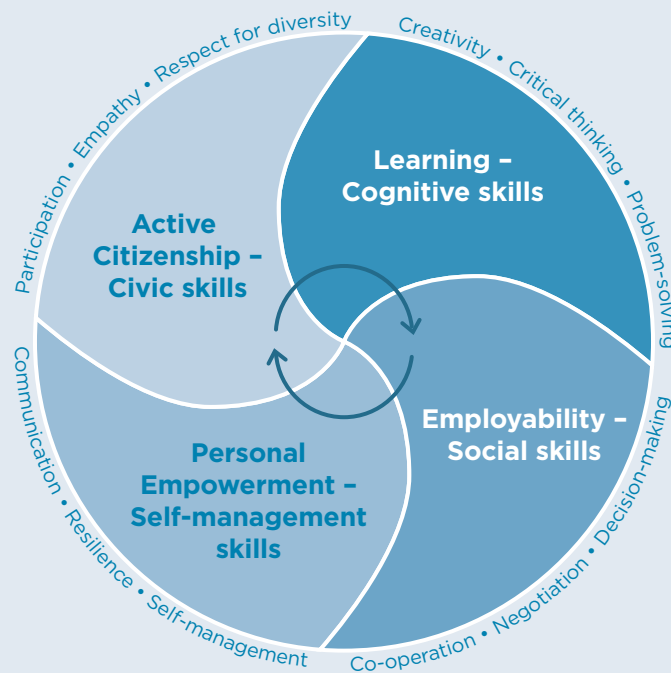
Jordan

Launched in 2017 by Jordan’s Ministry of Education, in partnership with UNICEF and Generations For Peace, the Nashatati (Arabic for ‘my activities’) program is a school-based after-school intervention that aims to improve educational and health outcomes through building competence, confidence and character in youth. The program targets vulnerable students and has a flexible curriculum across an array of activities, from sports to story-writing and games, targeting four skill areas (as shown in Figure 8).

The pilot program – in which 10,000 students participated across 100 schools – showed that participants improved in measures of confidence and conflict resolution. As a result, participation doubled in the second year, and all 3,500 public schools planned to offer the program for the 2019/20 school year. Also, the government’s Education Strategic Plan commits to devoting 20 percent of students’ learning time to extracurricular and after-school activities, adding policy support to Nashatati and similar programs. (See [2019 WISE Promoting Youth Well-Being Through Health and Education Report](#) for further information on this case study.)

See 2019 WISE report: Promoting Youth Well-Being Through Health and Education Report, page 38.

Figure 8. The Nashatati program’s four targeted skills areas



Source: UNICEF Jordan (2019)⁸⁰

Level 2. Targeting vulnerable children and young people

Children spend nearly one-third of their waking hours in school. This gives educators a unique opportunity to identify children who may need additional services because of their current circumstances or due to their risk factors for developing future ill health or undesirable behaviors. This is particularly true for vulnerable or economically disadvantaged children who might not regularly access health services.⁸¹ Many health conditions can be better managed or prevented if detected early, such as diabetes, developmental co-ordination disorder (DCD), dyslexia and obesity. Also, one in five children enters primary school with a developmental vulnerability. Without taking on the provision of health services, teachers are well placed to link these students to appropriate resources. For instance, students who clearly struggle to see the lesson board may be sent for eye tests. In Chile, the Ministry of Education runs a medical services program in schools to treat visual, hearing and spine problems that may impede learning. Teachers refer students to initial screening programs, and they are referred to specialists for treatment if needed.⁸²

Educators also have an opportunity to identify those at risk of, or suffering from, mental ill health. For example, troublemaking, misbehaving in class, or truancy may indicate poor mental health. Teachers can readily identify these students and recommend them for further screening.⁸³

More than 386 million schoolchildren receive school meals every day in nearly every country, and many of these meals are required to meet minimum nutritional standards. Some countries provide these universally to students, while others are given depending on a family's financial situation. These programs offer essential nutrition to particularly vulnerable children and young people.⁸⁴

[Case study 3](#) describes one Australian program that successfully identifies students in need of additional support and connects them to targeted services.^{85,86}



CASE STUDY 3. SCHOOL ENTRANT HEALTH QUESTIONNAIRE

Australia

The School Entrant Health Questionnaire (SEHQ) was introduced in 1997 as part of the Primary School Nursing Program in the state of Victoria in Australia. The questionnaire is completed annually by parents or carers when their child enters primary school (roughly aged 5 to 6 years old). It allows parents to record information and concerns about their child's health and wellbeing across a range of topics, including:

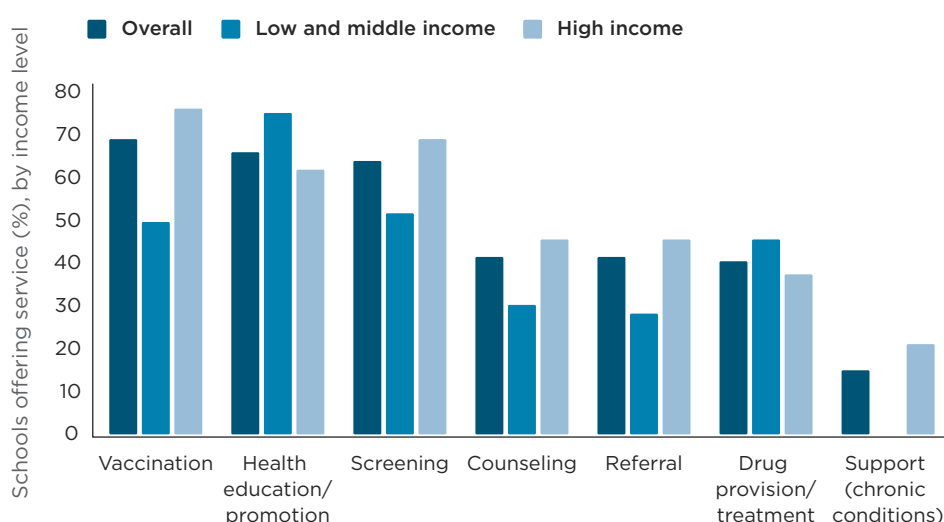
- General health
- Speech and language
- Service use
- Development and behavioral issues
- Psychological health and wellbeing
- Family stress.

School nurses review this information to identify children in need of services across these domains. For example, they provide at-risk children with further developmental screening tests. As the survey is used state-wide, it generates a comprehensive database on the state of health and wellbeing of children. In 2018, for instance, there were more than 63,000 SEHQ responses, covering 87 percent of children enrolled in the first year of primary school.

Level 3. Provision of healthcare and public health interventions

As the majority of primary and secondary school-age children attend school, this setting provides an opportunity to reach a large population, particularly disadvantaged children who might otherwise lack contact with the healthcare system.⁸⁷ A recent study found that at least 102 countries provide school health services, though the level and breadth of these interventions varies based on country context, health system structure and available resources.⁸⁸ Figure 9 highlights the most common types of school services by income level.

Figure 9. The most common types of school health services, by country income level



Source: Baltag et al. (2015)⁸⁹

There is wide variation in the literature around the cost-effectiveness of delivering specific healthcare services in schools. WHO is currently developing guidance on health services in schools;⁹⁰ however, there are many examples where schools are the most effective delivery mechanism. Deworming programs, for instance, have been estimated to be five to ten times cheaper when delivered in schools rather than through mobile health teams co-ordinated by the primary care sector.⁹¹ Similarly, costs for screening and provision of glasses are significantly lower when performed at schools by mobile teams after initial screening recommendations from teachers.⁹² Importantly, as part of their mission is to reach vulnerable children, schools provide a pre-existing platform to administer basic care services.⁹³ [Case study 4](#) highlights one case of mental healthcare service provision in schools in the UK.^{94,95} (See [WISH 2018 Anxiety and Depression Report](#) for further information and additional case studies.)

See WISH 2018 Anxiety and Depression Report, page 15.



CASE STUDY 4. PLACE2BE COUNSELING AND MENTAL HEALTH SERVICES

UK

Place2Be is a registered charity that provides counseling and mental health services in more than 600 schools across the UK. The organization uses early intervention to identify mental health problems before they develop further. Each participating school has a dedicated mental health professional from the Place2Be team. They use evidence-based therapeutic approaches to equip children to cope with challenges in their daily lives. Services span one-to-one counseling sessions, group sessions, training for school staff, and parental advice.

In 2019, more than 5,300 students used Place2Be's one-to-one counseling services. Many of these children come from vulnerable groups; for example, 45 percent receive free school meals and 28 percent have special needs.

An independent evaluation found a return on investment of £6.20 for every £1 invested in the counseling service. Further, a follow-up survey with teachers and parents whose students used the service revealed that:

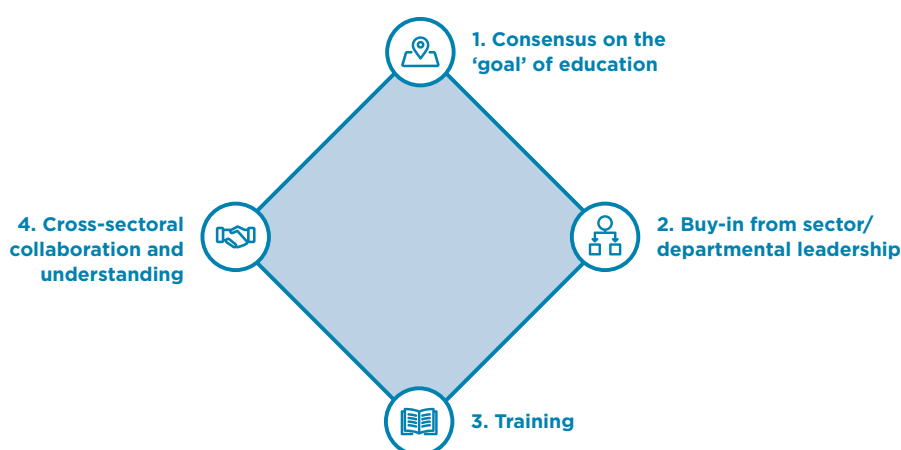
- 80 percent with the highest need showed an improvement in wellbeing.
- 75 percent showed an improvement with friendships.
- 74 percent showed an improvement at home.
- 68 percent caused fewer problems in class.
- 62 percent found their difficulties had less impact on their learning ability.

SECTION 4. TOOLS FOR SUCCESS

As described in [Section 3](#), integrating health and health promotion activities into the educational system is essential for the health and wellbeing of students. Yet, few countries have succeeded in doing so in a comprehensive way. This could be due to a number of barriers that prevent easy integration of these activities.

To help overcome these barriers, we have identified four central levers that can be used to implement the framework to achieve widespread integration of health and health promotion in schools (as shown in Figure 10).

Figure 10. Levers for success in integrating health and health promotion in schools



1. Consensus on the 'goal' of education

All education systems have a primary goal of teaching and learning, but there is wide variation in more expansive goals with relation to health or social skills. Countries with high ranking within OECD's PISA comparisons appear to have a stronger focus on health in schools, although this needs further research to confirm. Some countries – including Denmark, New Zealand, and Japan – specifically include wellbeing or health promotion in education policies. Others, including the US and England, tend to focus more narrowly on attainment and achieving select academic targets.

These visions cascade down from implementing national policies to performance metrics. While the OECD's PISA comparisons now include a wellbeing dimension, many regional and national performance metrics focus solely on academic attainment.⁹⁶ When schools do not routinely

measure the health and wellbeing of their students but do measure their intellectual progress, the latter will always take priority.⁹⁷ (See [WISH 2015 Mental Health and Wellbeing in Children Report](#) for further information.)

See [WISH 2015 Mental Health and Wellbeing in Children Report](#), page 18.

2. Buy-in from sector/departmental leadership

Commitment from leadership is essential to change practice. As the education sector has traditionally operated separately from the health-care sector, there is understandably resistance from education to expanding its remit to include responsibility for health. Conversely, health often focuses on clinical sectors and can be resistant to a broader public health focus that includes education.

School leaders are under more pressure than ever to deliver on performance metrics, often with shrinking or stagnant budgets. Leaders at the national level must commit to including health and health promotion in schools and create a plan for schools to follow. Buy-in also needs to be cultivated at the school level, with educators understanding that the goals of health and attainment are not in competition; rather, promoting student health also results in attainment gains.

3. Training

While there has been a greater focus on health promotion in schools in recent years, most teachers lack sufficient training in child health and development. If we expect educators to be responsible for promoting students' health, we must include these skills in teacher training programs. Healthcare provision and specialist knowledge should remain within the healthcare profession, but educator training programs should include a baseline level of child development, including social and emotional education, and mental health. This training should focus on identifying students at risk of developing health issues or in need of additional health support (as described in [Section 3](#)).

4. Cross-sectoral collaboration and understanding

Though education and health are inextricably linked, the government departments and ministries responsible for these functions typically work individually, in isolation. They often lack shared goals and metrics, and do not have integrated budgets, making implementation of joint projects disjointed and unco-ordinated. There is also often a division between the education sector, which has primary oversight over children and young people, and the health sector, which focuses on the health of the very young and the very old. The education and health sectors also have specific jargon, which can prevent cross-sectoral understanding and co-operation.

SECTION 5. CONCLUSION AND POLICY RECOMMENDATIONS

The education system has a substantial opportunity and responsibility to positively impact the health and wellbeing of children and young people. However, as described in [Section 4](#), there are a number of barriers preventing the better integration and implementation of health and health promotion activities in schools.

To address these challenges, we have developed a number of recommendations – actionable from the international level to school governance level – to guide policymakers in bridging the gap between the health and education sectors to improve the health and wellbeing of our children.

1. International actions

NGOs, research institutes and international organizations have an important role to play in codifying knowledge and sharing best practices across the globe. Specifically, they should aim to:

- **Contribute to the creation of a ‘common language’ framework to enable collaboration and understanding across different policy domains.** While it is well understood that health and education are complementary, they traditionally operate in isolation, with sector-specific jargon and metrics. Organizations that work across the health and education sectors have an opportunity to bridge the gap between these sectors. (*Levers 1 and 4*)
- **Strengthen school nursing and school health professions.** With few exceptions, school health services personnel lack training in adolescent and child health.^{98,99} International organizations can support this development through research, professional associations and training/specialization. (*Levers 1 and 3*)
- **Develop a clearinghouse of effective health interventions and practices for schools.** International organizations are well placed to evaluate and collate proven policies, supported by evidence of impact and cost-effectiveness. They should prioritize interventions and practices able to be scaled up and implemented across different settings. This guidance should also take into account the level of available resources, using a phased approach to implementation. Finally,

recommended interventions should include the application of behavioral science and implementation research, providing concrete steps to bridge the gap between knowledge and action. *(Lever 4)*

2. National actions

Country-level ministries have the ability to shape national policies that promote health as a priority within education and encourage a cross-sectoral approach. Recommended actions include the following:

- **Launch a ‘national child strategy’ that has cross-cutting priorities for health and wellbeing.** Uniting multiple government departments or ministries (health, education, welfare, and so on) under a single strategy will help facilitate collaboration, particularly in countries where these groups typically operate in isolation. This strategy should include a single point of responsibility and accountability for promoting health in schools (for instance, a ‘Minister of Health Promotion in Schools’). Importantly, this strategy should have a clear plan that can be explained and implemented at the school level. *(Levers 1, 2 and 3)*
- **Develop and deploy a health and risk factor survey, conducted annually or at each school transition period.** Identifying children with health and developmental issues early allows for swift intervention and improved long-term outcomes. Sharing these surveys across countries to allow international comparisons will strengthen their political capital. *(Levers 1, 3 and 4)*
- **Include health metrics as part of school performance indicators.** To ensure that schools prioritize health, health metrics must be included as part of their evaluation. We call on those international organizations responsible for measuring student performance to include broader health measures. These metrics should take into account national context, and be simple and not onerous to collect. Examples could include the Warwick–Edinburgh Mental Wellbeing Scale, or incidences of bullying. *(Barriers 1 and 2)*
- **Support the cross-training of teachers and health providers.** If educators are to be responsible for promoting the health of their students, they need to be better equipped with skills in health and wellbeing. Though healthcare provision and specialist knowledge should remain within the healthcare profession, educators should have a working knowledge of child development, including social and emotional education, and mental health. Similarly, healthcare providers would benefit from a base level of training in education and, in particular, how this intersects with child health. *(Levers 3 and 4)*

- **Implement the global standards for health-promoting schools.** WHO has recently developed a list of global standards for health-promoting schools, supported by vigorous research. This clear guidance provides an excellent framework for countries to broaden the focus of schools and explicitly include health promotion. (*Lever 1*)

(See [2019 WISE Promoting Youth Well-Being Through Health and Education Report](#) and [WISH 2020 PTSD and Toxic Stress in Children Report](#) for further cross-cutting national action recommendations.)

See 2019 WISE report: Promoting Youth Well-Being Through Health and Education Report, page 81.

See 2020 WISH PTSD and Toxic Stress in Children Report.

3. School and local governance actions

School governance structures implement and adapt national-level guidance at the regional and local level. They also engage directly with educators, parents, local health services and the wider community. Buy-in and co-operation from these groups is essential for any substantive change. Recommendations include:

- **Strengthen the visibility or position of health within school governance structures.** It is imperative that health and health promotion be considered a top priority by schools. The issue should be represented within the senior leadership team, either by including school nurses or healthcare officials in this group or by designating responsibility for health to a specific member of the team. (*Levers 1 and 2*)
- **Engage with parents and caregivers to gain support for health initiatives.** Parents' and families' expectations of schools encourage change. Local schools have the opportunity to engage directly with parents, acting as a bridge between school and family life, and ensure that the role of schools in shaping health is understood and supported by this group. (*Lever 1*)
- **Support the implementation of national strategies and initiatives.** School governance structures should lead on the regional and local implementation of the global standards for health-promoting schools and the national child strategy. They must ensure that they adapt these strategies to the local context and provide support for educators to take on any additional responsibilities. (*Levers 1-4*)

These recommendations are far-reaching and will require collaboration globally and across traditionally isolated sectors. While implementation and specific initiatives will vary based on regional and country-level differences, we hope that this action plan will aid policymakers in leveraging the school system to deliver improved health and wellbeing outcomes for children around the globe.

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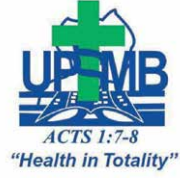


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