



School Health Integrated Programming

School health for all

An operational manual for integrating inclusive
school health and nutrition



Introduction

This Manual was compiled as part of the work completed by the **School Health Integrated Program (SHIP)**¹, and focuses on how to apply an integrated approach to implementing vision screening and deworming as part of an education sector in four countries – Cambodia, Ethiopia, Ghana and Senegal. The work carried out by the SHIP initiative demonstrated how some of the principles and activities described in this Manual could be carried out in practical terms and in line with existing government programs.

The SHIP team wishes to thank the staff working at the Ministries of Education and Ministries of Health and other government ministries in each of the four countries selected for the SHIP program – Cambodia, Ethiopia, Ghana and Senegal – for their strong commitment, leadership and support in carrying out activities designed by the SHIP initiative. A special thank you to development partners (Local Education Donor Group members), non-governmental organizations and disabled people's organizations working to improve the lives of the most vulnerable children for their leadership and support expressed throughout the SHIP implementation cycle.

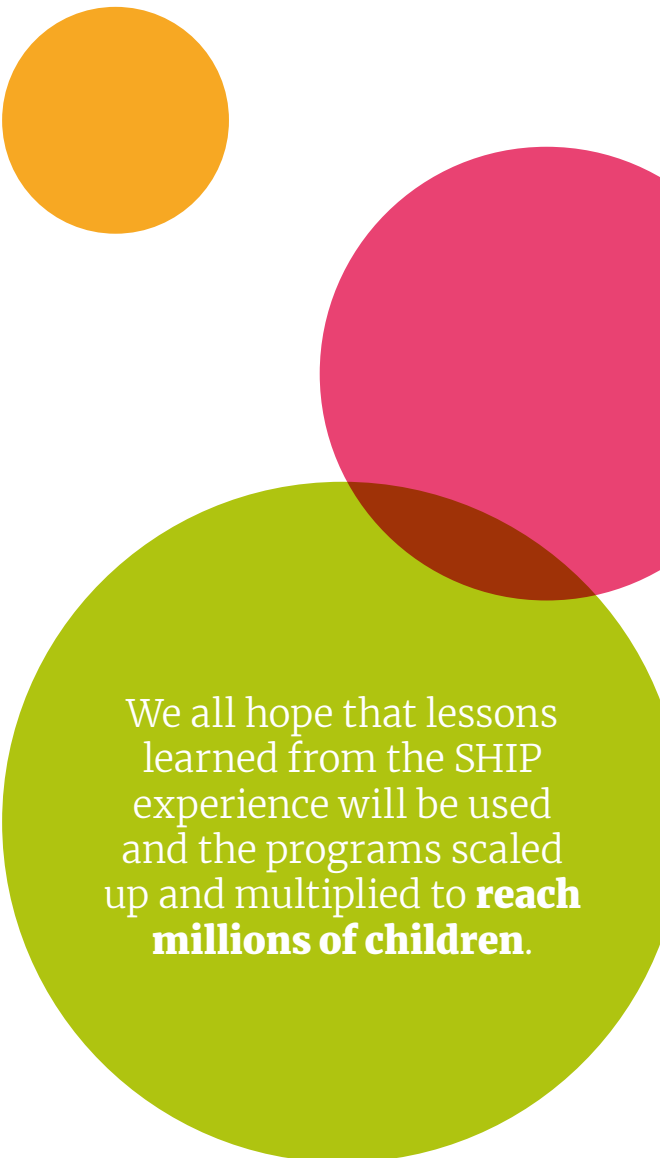
The team would also like to express a special appreciation to school health experts and organizations working in the area of school health and nutrition and would like to acknowledge the valuable information, which has been used and applied during the compilation of this manual and during country-level implementation.

The key resources used and referenced in the manual can be found in Section 4 of this document.

And finally, the team wishes to thank the teachers, school staff and the children who participated in the training and the programs implemented at the school level. We all hope that lessons learned from the SHIP experience will be used and the programs scaled up and multiplied to reach millions of children.

With very best wishes,

SHIP Initiative



We all hope that lessons learned from the SHIP experience will be used and the programs scaled up and multiplied to **reach millions of children.**

1. For an overview of the SHIP Initiative, please see the announcement of the SHIP here: <http://www.schoolsandhealth.org/News/Pages/World-Bank,-GPE,-PCD-and-Sightsavers-partner-to-improve-education-through-school-health.aspx>

Structure of the Manual

This manual consists of three main sections intended for different audiences. The fourth section is a list of reference materials and useful resources

Section one may be useful for GPE partners – developing country partners, donors, civil society organizations, international organizations, private sector and foundations – working in education.

Section two is intended for Ministry of Education staff working on designing and implementing school health and nutrition programs

Section three is designed specifically for technical counterparts – health experts/specialists and refractionists – and focuses on the technical aspects of implementation.

Section four is for anyone interested to broaden their knowledge and learn more about school health and nutrition (including key resources consulted)

The three main sections focus on the “what” and the “why” and the “how to” when it comes to advocating, justifying, designing, budgeting and implementing integrated school health and nutrition programs in low and middle income countries.

The three sections plus the key resources consulted (including useful links to on-line resources and information) make up **“School Health for All: An Operational Manual for Integrating School Health and Nutrition”**, a practical companion for designing and implementing school health and nutrition programs as a significant contributor to achieving education sector goals and in reaching the last group of children who remain out of school and vulnerable. This document can be used by school health and nutrition departments at the ministries of education as a framework for planning simple but effective school health and nutrition programs based on the countries’ demands and priorities.

This **“School Health for All: An Operational Manual for Integrating School Health and Nutrition”** can also be used as a practical guide, which can be used by development partners working in the education sector and wishing to support governments in low and middle income countries that are interested in establishing, strengthening or expanding their existing school health and nutrition programs using an integrated approach inclusive of children with disabilities.

In addition, this Manual includes technical guides on developing programs for eye screening and deworming (the two key interventions, which the SHIP focused on) and explains the benefits of including school health and nutrition programs as part of education sector plans, which may be useful to stakeholders as they advocate for allocation of resources for school health and nutrition in Ministries of Education or development agencies. It can also be used as a useful tool in demonstrating examples of successful multi-sector collaboration to achieve a common goal.



Outline

Section 1: What is school health and nutrition and why is it important?	Page: 5
1.1 What does school health and nutrition mean?	Page: 5
1.2 Mainstreaming Inclusive School Health and Nutrition Programs into education sector planning	Page: 5
1.3 Disability-Inclusive School Health and Nutrition	Page: 6
1.4 Examples of Inclusive School Health and Nutrition interventions and the role of Ministries of Education	Page: 7
1.5 Focusing Resources on Effective School Health (FRESH): what is FRESH?	Page: 7
1.6 Defining Sectoral Roles and the important role of the Ministry of Education	Page: 11
1.7 Rationale for investing in School Health and Nutrition programs	Page: 12
1.8 Benefits of school-based health programs (evidence that school health programs are effective)	Page: 13
Section 2: How to design and implement Integrated Disability-Inclusive School Health and Nutrition Programs?	Page: 16
2.1 The political economy is crucial to the success of multisectoral programs	Page: 17
2.2 Simple programs that build on existing platforms are more likely to go to scale and reach the school children most in need.	Page: 17
2.3 Most programs rely on the public sector, but there can be an important role of civil society and the private sector.	Page: 18
2.4 Targeting often lies at the heart of practical success.	Page: 18
2.5 School health and nutrition programs can be effectively mainstreamed into the education sector	Page: 18
2.6 Key principles to consider in starting and implementing a school health program	Page: 19
Section 3: Technical Guidelines for vision screening and deworming	Page: 26
Section 4: Key Resources consulted	Page: 27

Section 1: What is School Health and Nutrition? And why is School Health and Nutrition important?

Intended audience: GPE partners, other development partners working in education/education officers (World Bank, UNICEF, UNESCO, bilateral donors), and education policy makers within national governments.

1.1 What does “school health” mean?

School Health and Nutrition (SHN) first and foremost means school-based programs which are designed to target and address nutritional needs and important health issues in school age children, and frequently delivered by, or with support of, teachers.

Many approaches to health education warrant the support of development agencies, such as community health education, or health education targeted at a particular sector of the workforce.² But in the field of education, school health programs almost universally refer to health-related education programs and interventions that are delivered by schools with communities and Ministries of Health as partners using the school as a platform.

School health and nutrition programs for children of school age are usually delivered through the school system, often supported by a formal policy between health and education sectors. There are safe, simple, and effective school-based options by which the education sector, typically with oversight from the health sector, can address most common health and nutrition conditions that affect school age children. Effectively implemented school health programs have been shown to positively affect educational outcomes.

Some of the most commonly used interventions, and the respective conditions they seek to address, include deworming and worm infection, bed nets and malaria, hand washing and bacterial infections, tooth brushing and dental care, eye

glasses and refractive error, physical exercise and/or healthy diet and weight concerns, micronutrients and micronutrient deficiency, and food and hunger.

Some of these activities can be addressed by teachers or other education staff with a minimum of training and with oversight from the health sector, while others require the direct involvement of often rare specialists (for example, vision correction and dentistry). Some activities require a single annual activity, (for example, deworming, malaria treatment, distribution of bed nets, dispensing eyeglasses); some weekly action (for example, iron supplementation, chlorine water treatment); and some, a daily or more frequent intervention (for example, tooth brushing, hand washing, school feeding, physical exercise).

Schools are a particularly effective platform for delivering these interventions because the effects can be optimized by utilizing the role of the school as a teaching and learning institution. School nutrition is sometimes used interchangeably with “school health and nutrition”. In most countries there are more schools than clinics and more teachers than health professionals and this ratio is often greatest in countries with the lowest GDP.

1.2 Mainstreaming Inclusive School Health and Nutrition Programs into education sector planning

Designing integrated and inclusive school health programs means focusing on integrating different health-related interventions and implementing these as part of a comprehensive school health program utilizing teachers and other school-based staff. “Inclusive” within school health means including all children who are left out or excluded from school (including children with disabilities).

For most countries the challenge is to optimize existing programs. Most countries are not starting from scratch, instead they already have school health and nutrition programs, often including school feeding programs that need to be modified to address new priorities and needs. In most cases the aim is to expand the geographical coverage of an existing program so that it reaches poor and marginalized children.

2. USAID. 2011. First Principles: Designing Effective Education Programs for School Health in Developing Countries Compendium. Available at: www.equip123.net/docs/E1-FP_Health_Comp_Web.pdf

The challenge often lies in integrating and mainstreaming Inclusive School Health and Nutrition Programs into education sector planning. Departments of Planning (DOPs) at the Ministries of Education, development partners working in the education sector and NGOs working on improving health of school age children all play an important role in making sure that School Health and Nutrition Programs become part of an Education Sector Plan (ESP).

Why should schools be used as a platform for delivering health and nutrition to school age children?

Schools are an effective platform for health and nutrition because the effects of school-based interventions can be optimized by using the role of the school as a teaching and learning institution – as well as by using schools we can reach many children at the same time. Effective delivery relies on the school performing its main role as a teaching and learning institution to:

- + Provide children with age-appropriate, actionable knowledge;
- + Serve as a conduit for knowledge on health and nutrition for the community;
- + Demystify health and nutrition; and
- + Reinforce positive behavioral messages and address stigma.

1.3 Disability-Inclusive School Health and Nutrition

What is meant by inclusive?

Over the years, the term “inclusive education” has been translated into “including children with disabilities”, such as children who have difficulties seeing or hearing, limited mobility, or experience difficulty learning in “regular” classrooms.

Inclusive within school health means including all children who are left out or excluded from school (including children with disabilities). This means, for example, children who do not speak the language of instruction or belong to a different religion or caste, and children who may be at risk for dropping out because they are sick, hungry, or not excelling academically. The term could also include girls who are pregnant or children affected by HIV/AIDS. The term also extends to all girls and boys who should be in school but are not, especially those who work at home, in the fields, or elsewhere (migrants), to help their families survive.

Even when all children are enrolled in school, some may still be excluded from participating and learning in the classroom. For instance, there may be children:

- + Who are never asked or never offer to contribute;
- + Who cannot see the blackboard, textbook or cannot hear the teacher;
- + For whom a lesson or textbook is not written in their first language.

There are significant opportunities for school health and education interventions to address childhood disability. School health interventions intersect with disability through primary, secondary and tertiary prevention. For example, school health programs could offer bicycle helmets and street safety training to students; micronutrient supplements could be provided to compensate for a lack of adequate food; and rehabilitative needs of students with disabilities could be met through behavioral, physical, mobility, speech, and related therapies. Health and disability screening could easily be integrated into and implemented as part of Inclusive School Health and Nutrition programs.

Disability-Inclusive School Health and Nutrition Programs can be used as an effective platform to educate teachers about different types of learners and to introduce health and disability screening (including provision of assistive devices) as part of Inclusive School Health and Nutrition Programs. Integrating school health program interventions, targeting children with disabilities, with inclusive education strategies, aiming to provide education access to children with disabilities, is an effective way to meet the health needs of children with disabilities.

In addition, school health interventions could address attitudinal barriers that exclude children with disabilities from education by providing teacher and other school staff with training programs raising disability awareness and covering topics about inclusion, children’s rights, and support other interventions by the education sector such as inclusive curricula and inclusive teacher training programs.



1.4 Examples of Inclusive School Health and Nutrition interventions and the role of Ministries of Education

School Health and Nutrition interventions are usually limited to school-led (or school-based) programs because:

1. they target the health of school age children who often lack health services and aim to reach the target population where they reside;
2. they use the education infrastructure to maximize efficiency and cost-effectiveness in reaching school age children;
3. they target education and learning outcomes as the primary reason for investing in school health programs;
4. they target interventions on programs that are particularly acute for school age population; and
5. they focus energies on simple health-related interventions that teachers and community members can implement on their own, sometimes in collaboration with local health professionals.

Examples of such activities may include the following:

- + Promoting a safe and clean school environment, including constructing separate latrines for both boys and girls, constructing walls and fences, developing protocols for managing violence at school;
- + Developing and posting school health policies, including statements opposing tobacco and drug use and encouraging intolerance of school violence, bullying, and/or gender-based violence;
- + Providing nutritious school snacks and/or school feeding;
- + Providing safe water and sanitation;
- + Offering water and sanitation and hygiene (WASH) education;
- + Offering HIV prevention education and HIV/AIDS mitigation activities;
- + Providing infectious disease prevention education, including malaria, tuberculosis, chronic respiratory illness, influenza, and cholera;
- + Delivering deworming medicines and micronutrients;

- + Providing nutrition education;
- + Offering health referral programs and promoting the use of health facilities;
- + Offering health and disability screening and provision of assistive devices for children with impairments and disabilities;
- + Educating students in life skills and social and emotional skills that will help them make healthy choices in life
- + Addressing the mental health needs of learners, which is especially important post conflict or post disaster environments;
- + Promoting positive community health behaviors through drama and message campaigns.

1.5 Focusing Resources on Effective School Health (FRESH): what is FRESH?

Focusing Resources on Effective School Health (FRESH), refers to a framework for action that was launched at the World Education Forum in Dakar in 2000 by United Nations agencies, including UNESCO, UNICEF, the WHO and the World Bank. It was a landmark achievement in the recognition of the importance of SHN for the education sector, serving to highlight the most important approach to effective school health programs.

The FRESH framework and supporting partnerships emphasizes that in order to achieve universal education, health of children and adolescents must be met through cost-effective activities delivered across sectors. Underlying the FRESH framework is a set of key principles or 'pillars' from which to plan, implement and evaluate effective school health policies and programs in schools. The four pillars are:


1. **School policies:** Establishing health-related school policies is vital to ensure effective and sustainable school health programming.
2. **Safe, supportive school environments:** Creating safe and supportive school environments that provide adequate access to water and sanitation facilities along with other physical and physical support is an important component of school health for all, and in keeping children, especially girls in schools. Key examples are providing access to clean water and accessible toilets.

- 3. School based health and nutrition services:** Services can include screening for health conditions and disabilities, referral to health centers, deworming, micronutrient supplementation and school feeding, all of which are known to improve educational outcomes. The key to a successful SHN service provision is to ensure the service is simple, safe and can cost-effectively be rolled out for teacher implementation.
- 4. Skills-based health education:** health education can improve health behaviors, inform the choices of school age children and adolescents. Key areas of health education include malaria prevention, HIV prevention, proper hygiene behaviors, and education on nutrition.

The FRESH framework therefore provides a frame of reference through which to design and implement SHN programs that are equitable and inclusive of **all** children – ensuring that no child is left behind or out of school. This means that actions to include children who are vulnerable such as children with disabilities, orphans, girls and those in severe poverty are taken at all stages of planning and implementing SHN programs. All four of these components are necessary for a successful program. They can be implemented effectively only if they are supported by strategic partnerships between;

- 1.** the health and education sectors, especially teachers and health workers,
- 2.** schools and their respective communities and
- 3.** pupil's awareness and participation.

The table on the following page shows ways how the FRESH pillars can be inclusive. By designing SHN programs to include every child, education for all can become a reality.



The FRESH framework therefore provides a frame of reference through which to design and implement SHN programs that are equitable and inclusive of **all children**

FRESH pillar	FRESH Concept	Key concepts for inclusion	Practical implications
Equitable school health policies	Policies that underline school health. Promoting physical and psychosocial health of children, teachers and staff.	Inclusive development; gender sensitive; universal design	Gather and disaggregate data on children with disabilities; require adequate and sustainable funding; make policy makers aware and trained
A safe and supportive learning environment	Providing adequate water and sanitation facilities inclusive of safe water and provision of separate latrines for boys, girls and teachers. Violence and psychosocial issues can be included under this pillar.	Physical access; stigma-free environment	Follow accessibility standards; promote human rights, equity, and diversity to remove attitudinal barriers
Skills-based health education	Development of knowledge attitudes and skills that promote positive health behaviors and inform the choices of school age children and adolescents. Key areas of health education include malaria and HIV/AIDS prevention, and education on proper sanitation and hygiene behaviors.	Curriculum adaptations; information, education, and communication materials in accessible formats (Braille, sign language, easy reading)	Adapt methodologies and content to the learning needs of all children; provide accessible learning materials
School-based health and nutrition services	Provision of low-cost, simple but effective interventions and screening services.	Inclusive delivery of health and nutrition services; cross-sectorial collaboration; integrated approaches to programming	Train teachers and health workers in inclusive school health and nutrition; provide health screening and appropriate assistive devices; conduct high-quality context analysis; support inclusive Home-Grown School Feeding programs; provide inclusive water, sanitation, and hygiene programming; engage families and organizations to support outreach and delivery of services

The FRESH framework also highlights the importance of partnerships. This extends beyond the partnerships between implementing bodies, to include the communities themselves. This includes schools, health centres, students, community groups, parent-teacher associations, faith-based organisations and civil society organisations. Many countries are increasingly using FRESH to develop their SHN policies and plans³. The image below shows the FRESH framework in action in the school setting, with key areas where the school reaches out to the communities and highlights some effective school-based health services and education activities. School Health and Nutrition is one of the four FRESH pillars.



Why is school health important?

There are compelling arguments for public investment in school health and nutrition programs, including their contribution to economic growth, high rates of return and large externalities. Ensuring that children are healthy and able to learn is an essential component of an effective education system. Supporting efforts to encourage enrollment, reduce absenteeism and dropout will enable more of the poorest and most disadvantaged children, many of whom are girls, to attend school. It is the children who are the least healthy and most malnourished that have the most to gain educationally through school health-related interventions.

Education sector planners are increasingly recognizing the relevance of school health and nutrition to their education goals and beginning to take responsibility for implementing these programs as part of sectoral response. Increasingly planners are locating these programs in the education service administration and including them in education sector plans. As discussed in 'Rethinking School Health'⁴, the funding channels for some aspects of school health programs are often unfamiliar to the education sector, such as those for procuring drugs, food or eyeglasses and other assistive devices. One solution is to embed the various components within an overall sector-wide approach.

Some of these approaches came up during the SHIP interventions and will be discussed later in the manual.

3. Sarr, B., McMahon, B., Peel, F., Fernandes, M. & Drake, L., 2016. The Evolution of School Health and Nutrition in the Education Sector 2000–2015. Partnership for Child Development, Imperial College London. Manuscript in preparation.

4. Bundy, D. 2011. Rethinking School Health; A Key Component of Education for All. The World Bank: Washington DC. Available at: <http://documents.worldbank.org/curated/en/900271468332690641/Rethinking-school-health-a-key-component-of-education-for-all>

1.6 Defining Sectoral Roles and the important role of the Ministry of Education

There are many ways to approach delivery of school health and nutrition, but diverse experiences suggest that these interventions share common features. In particular, a review of existing programs highlights certain consistent roles played by government and nongovernmental organizations.

Partner	Roles	Comments
Ministry of Education	<ul style="list-style-type: none"> + Lead implementing agency + Lead financial resource + Education sector policy + Education sector plan (ESP) 	<ul style="list-style-type: none"> + Health and nutrition of school children is priority in EFA and SDGs + Education policy defines school environment, curriculum, duties of teachers + Education system has a pervasive infrastructure for reaching teachers and school age children
Ministry of Health	<ul style="list-style-type: none"> + Lead technical agency + Health sector policy 	<ul style="list-style-type: none"> + School age children utilize health services through health centres less than other groups + Health policy defines role of teachers in service delivery and how health materials are procured
Other public sector agencies (for example, ministries of welfare, social affairs, local government, agriculture)	<ul style="list-style-type: none"> + Support education and health systems + Fund holders 	<ul style="list-style-type: none"> + Ministries of local government are often fund holders for teachers and schools, as well as for clinics and health agents + Ministries of welfare and social affairs provide mechanisms for the provision of social funds (for examples, funds to provide services for children with disabilities)
Private sector (for example, health services, pharmaceuticals, publications)	<ul style="list-style-type: none"> + Specialist service delivery + Materials provision 	<ul style="list-style-type: none"> + Major role in drug procurement of training materials + Specialist roles in health diagnostics
Civil society (for example, NGOs, FBOs, PTAs, DPOs)	<ul style="list-style-type: none"> + Training and supervision + Local resource provision 	<ul style="list-style-type: none"> + At the local level, serve as gatekeepers and fund holders; may also target implementation + Other additional resource streams, particularly through non-governmental organizations
Teacher associations	<ul style="list-style-type: none"> + Define teachers' roles 	<ul style="list-style-type: none"> + School health programs demand an expanded role for teachers
Local community (for example, children, teachers, parents)	<ul style="list-style-type: none"> + Partners in implementation + Define acceptability of curriculum and teachers' roles + Supplement resources 	<ul style="list-style-type: none"> + Gatekeepers for both content of health education and the role of non-health agents (especially teachers) in health service delivery. Students are active participants in all aspects of the process at the school level + Communities supplement program finances at the margins

In cases when the Ministry of Education is the lead implementing agency, reflecting both the goal of school health and nutrition programs to improve educational achievement and the fact the education system often provides the most complete existing infrastructure for reaching school age children. But the education sector must share this responsibility with the Ministry of Health, particularly since the latter has the ultimate responsibility for the health of all children, including school children. Emphasis must be placed upon the need for coordination between ministries and this should be addressed by the creation of a memorandum of understanding (MOU). MOUs can be used to signify the expression of a common will between the ministries and outline intended actions to be approached in

conjunction. It is also apparent that program success is dependent on the effective participation and support of numerous stakeholders, especially the beneficiaries and their parents or guardians.

1.7 Rationale for investing in School Health and Nutrition programs

“Ensure Inclusive and equitable quality education and promote lifelong learning opportunities for all”

Each year children in low-income countries miss school days due to common health problems. The school system provides a cost-effective platform for delivering simple health interventions to school children, therefore optimizing the benefits of education, increasing access for the most marginalized and preventing millions of children from missing school and dropping out.

Since 2015, when more than 190 world leaders committed to 17 Sustainable Development Goals (SDGs)⁵ to help end extreme poverty, fight inequality and justice, and fix climate change, we see now that inclusiveness and equity is enshrined in the new global education goal. Following on from that we have the Education 2030 Framework for Action by UNESCO, World Bank and other major partners which notes that:

Education is also one of the most potent ways to improve individuals' health – and to make sure the benefits are passed on to future generations. It saves lives of millions of mothers and children, helps prevent and contain disease, and is an essential element of efforts to reduce malnutrition. Moreover, education promotes the inclusion of persons with disabilities. It is also fundamentally protective for children, young people and adults whose lives have been devastated by crisis and conflict, and provides them with tools to rebuild their lives and communities.

Education 2030, Incheon Declaration⁶

Today, far more countries have policies and plans to implement school health programs than those that are actually doing so. The analysis done as part of compiling research for “Rethinking School Health”⁷ suggested that there is one central issue: efforts to provide comprehensive programs can result in programs that are too complex or demanding to go to scale, which suggests that development partners advocating for school health and countries working to design school health programs as part of education sector plans should go for scale and simplicity rather than comprehensiveness. For example, the Kenya deworming program reached 3.5 million children in one year and the Philippines Fit for School Program has gone to scale with deworming, hand washing and tooth brushing⁸.

A school health program is an effective tool which can be used as a platform for delivering familiar, safe, and simple health and nutrition interventions to even hard-to-reach children in low income countries. This has been achieved by reducing the school health program to its simple essentials and targeting delivery at the communities most in need.

Economic analysis repeatedly shows that education gives a high economic return within the life span of an individual, and is a key factor in determining the growth of nations⁹. Education is one of the most important drivers of development of individuals and societies. More children born today survive infancy and reach school age than ever before¹⁰. However, classrooms, teachers and textbooks have little meaning to a child's education if the child is too sick, tired or undernourished to learn or attend school. Many children are prevented from fully accessing the benefits of the education system through underlying health conditions, physical, yet correctable disabilities, or poor nutrition and hunger. These conditions can lead to absenteeism, poor cognitive development and fatigue. With more schools than clinics and more teachers than health workers, schools provide an ideal and stable platform from which to launch “school health” initiatives through which to ensure the successful development and learning of children in developing countries.

5. <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>

6. UNESCO. 2015. Incheon Declaration: Education 2030: towards inclusive and equitable quality education and lifelong learning for all. Available at: <http://en.unesco.org/world-education-forum-2015/incheon-declaration>

7. Bundy, D. 2011. Rethinking School Health; A Key Component of Education for All. The World Bank: Washington DC. Available at: <http://documents.worldbank.org/curated/en/900271468332690641/Rethinking-school-health-a-key-component-of-education-for-all>

8. Ibid, page 9

9. The World Bank, 2008. Economic Returns to Investment in Education in The Road Not Traveled: Education Reform in the Middle East and North Africa. The World Bank: Washington D.C. pp.39-81

10. Roser, M., 2016. Child Mortality. Published online at OurWorldInData.org. Available at: <https://ourworldindata.org/child-mortality/>

Teachers provide an extensive and sustained workforce that is respected by the pupils and the community alike. With support and training, teachers can effectively deliver SHN interventions. Embedding SHN within the education sector plans and policies provides a stable, cost-effective and long-term platform from which to build a strong and enduring program that can survive through rounds of funding and lead to health and education benefits across a nation¹¹. Schools provide a stable platform to deliver simple and cost-effective health and nutrition interventions that make children healthier, happier and more able to learn and take advantage of the educational opportunities given to them that are essential if they are to reach their full potential.

Inclusive School Health and Nutrition can provide the greatest benefits to the poorest children through addressing health issues which first of all affect the poorest members of society the most, and secondly impair their uptake of educational benefits. SHN is therefore viewed as 'leveling the playing field' and providing equity in education. In many countries children who are suffering from a disability are often the first to drop out of schools¹², school health interventions should therefore be designed to be inclusive and equitable to all.



1.8 Benefits of school-based health programs (evidence that school health programs are effective)

There is evidence that improving children's health and nutrition contributed to reaching EFA goals of access, completion, and achievement in primary schools¹³. Health and nutrition interventions before school age aim to ensure that children are ready to learn, usually assessed in terms of cognitive development, and that they enroll at the appropriate age, which is country specific, but typically in the range of four to six years of age.

Many diseases have effects on school enrollment. Short stature due to poor nutritional status can lead parents to delay children's enrollment. Studies across Asia and Africa have found that stunted children enroll in school later than other children¹⁴. Illness and malnutrition in early childhood can result in long-term effects on educational achievement that are measurable at school age. There are many ways in which these long-term effects can occur. For example, poorly nourished children are less sociable, more apathetic, and generally less likely to interact with their environment. Responding to their apathy, mothers are less likely to interact with these poorly nourished children. This lack of stimulation from the environment can affect children's mental development. In addition, malaria, iron deficiency and under nutrition have direct effects on the brain. Suffering from these diseases in early childhood has long-term impact on cognitive development through adolescence¹⁵.

The benefits of early nutrition and early stimulation are perhaps best known. It is also apparent that early health interventions can have long-term benefits for education. Even if early interventions have helped children enroll in school at the appropriate age, it is commonly reported that illness can cause children to miss school. Malaria in some areas of Africa, for example, has been cited as the source of more than 50%

11. Bundy, D. 2011. Rethinking School Health; A Key Component of Education for All. The World Bank: Washington DC. Available at: <http://documents.worldbank.org/curated/en/900271468332690641/Rethinking-school-health-a-key-component-of-education-for-all>

12. UNICEF, 2013. Children and Young People with Disabilities Fact Sheet: May 2013. UNICEF. Available at: https://www.unicef.org/disabilities/files/Factsheet_A5_Web_NEW.pdf, pp.11-21

13. Bundy, D. 2011. Rethinking School Health; A Key Component of Education for All. The World Bank: Washington DC. Available at: <http://documents.worldbank.org/curated/en/900271468332690641/Rethinking-school-health-a-key-component-of-education-for-all>

14. Partnership for Child Development. 1999. Short stature and the age of enrollment in primary school: studies in two African countries. *Social Science & Medicine*. 48 (5): 675-82.

15. Jukes, M., 2005. The long-term impact of preschool health and nutrition on education. *Food and Nutrition Bulletin*. Vol 26, no. 2.

of preventable absenteeism. Worm infection in Kenya is also associated with absenteeism¹⁶. School children who were given treatment against worms recorded improvements in school participation in a combined measure of enrollment and attendance.

Children's learning continues to suffer from poor health and nutrition while they are at school. It is important to recognize that improving health may improve cognition, but quality education is then needed to help children exploit this potential. Deworming does not lead inevitably to improved cognitive development, but it does provide children with the potential to learn.

In general, improving health and nutrition brings the greatest educational benefits to the poorest and most vulnerable schoolchildren. Many studies show that the greatest benefits of intervention accrue to the children who are worst off at the outset – the poor, the sick, and the malnourished – which suggests that school health and school feeding programs can be pro-poor¹⁷.

Note: The SHIP focused on introducing and implementing two integrated interventions in the four countries (Cambodia, Ethiopia, Ghana and Senegal): deworming and vision screening, which are described in this manual. Although specific school health interventions have their specific benefits, the benefits of the two SHIP interventions are outlined below:

Deworming

More than 400 million school age children worldwide are estimated to be infected with soil-transmitted helminthes (STH), which consist of roundworms (*Ascaris*), hookworms (*Necator* and *Ancylostoma*), whipworms (*Trichuris*). Over 120 million school age children are at risk of schistosomiasis (also known as bilharzia)^{18,19}. These infections disproportionately affect school age children around the world in terms of both burden of infection as well as consequences of infection, with heavily infected children at a greater risk of malnutrition, anemia and detrimental effects on physical and mental development. Over the short term, infected children are often too sick or too tired to attend or concentrate in school, and worm infections are associated with impaired cognitive development and decreased educational achievement. Many of these effects are reversible with administration of safe, cheap and efficacious deworming drugs, with studies showing catch-up growth in height and weight, improvements in cognition and school attendance as well as school-based learning following deworming medication^{20,21}. Deworming has been hailed as one of the most cost-effective school based interventions to get children into school and learning²². Research suggests that even children who do not receive deworming tablets can benefit from a deworming program through reduced infective environments, and that children who are dewormed show long-



16. Brooker S, Guyatt H, Omumbo J, et al. Situation analysis of malaria in school-aged children in Kenya – what can be done? *Parasitology Today*. 2000;16:183–186.
17. Bundy, D. 2011. Rethinking School Health; A Key Component of Education for All. The World Bank: Washington DC. Available at: <http://documents.worldbank.org/curated/en/900271468332690641/Rethinking-school-health-a-key-component-of-education-for-all>
18. Pullan, R. L., J. L. Smith, R. Jasrasaria, and S. J. Brooker. 2014. “Global Numbers of Infection and Disease Burden of Soil Transmitted Helminth Infections in 2010.” *Parasites and Vectors* 7: 37.
19. World Health Organization. 2014. “Schistosomiasis: number of people treated worldwide in 2014.” *Weekly Epidemiological Record* 5: 91, 53–60.
20. Miguel E., M. Kremer. 2004. Worms: identifying impacts on health and education in the presence of treatment externalities. *Econometrica* 72: 159–217
21. Nokes C, Grantham-McGregor SM, Sawyer AW, Cooper ES, Robinson BA, et al. 1992. Moderate to heavy infections of *Trichuris trichiura* affect cognitive function in Jamaican school children. *Parasitology* 104: 539–547
22. Bundy, D. 2011. Rethinking School Health; A Key Component of Education for All. The World Bank: Washington DC. Available at: <http://documents.worldbank.org/curated/en/900271468332690641/Rethinking-school-health-a-key-component-of-education-for-all>

term benefits in terms increased years of formal education, and increased wages into adulthood compared to communities who did not receive deworming²³. Thus, school based deworming provides a cheap and simple way to distribute tablets to the population who requires it the most—namely school age children. With support from the health sector, teachers can be trained in just a few hours to deliver the drugs safely and efficiently, maintaining accurate records of their distribution. Deworming has been shown to be pro-poor, particularly benefitting the most vulnerable children in society, and is therefore frequently recommended as a corner-stone SHN service.

Vision Screening

It is estimated that at least one third of the world's 72 million children who are not in school have a disability which includes those with a vision impairment²⁴. Uncorrected vision can impact a child's life through difficulties with activities of daily living, mobility, reading and fine work. This can have a major impact on a child's ability to succeed in education.

Uncorrected refractive errors are the most common cause of poor vision in children, so one of the main drivers of school eye health programs is the detection and treatment of these. A refractive error occurs when light is prevented from focusing correctly on the retina due to the shape of the eye. There are several different type of refractive error, which can cause different symptoms such as objects becoming blurry or appearing stretched out, but can also lead to the eye having trouble focusing. Other symptoms may include double vision, headaches, and eye strain.

Other factors that can impact a child's education include irritated, sore or light sensitive eyes. The factors that cause poor vision in children are also causes of child mortality, however much can be done through cost effective interventions, primary health care and school health programs.

The detection and treatment of common eye conditions should be included within school eye health programs. Refractive errors can be corrected by spectacles or contact lenses in the majority of cases.

School-based eye health programs can be used as an effective platform to promote prevention, early detection and treatment of common disorders. School eye health programs can also help identify children requiring referral for services, like low vision care, rehabilitation and special education.



23. Miguel E., M. Kremer. 2004. Worms: identifying impacts on health and education in the presence of treatment externalities. *Econometrica* 72: 159-217

24. UNESCO. 2006. Education for All Global Monitoring Report 2007: Strong Foundations. Available at: www.unesco.org/education/GMR/2007/Full_report.pdf

Section 2: How to design and implement Integrated Disability-Inclusive School Health and Nutrition Programs?

Intended audience: Ministry of Education staff working on designing and implementing school health and nutrition programs

First of all, when designing school health programs, few countries start from nothing. Many school health programs in low-income countries, particularly in Africa, have descended from colonial antecedents that were intended to serve the minority of children who had access to school in urban centers or who attended elite boarding schools. These programs rely on specific infrastructures and services – such as school visits by health teams, school nurses, and in-school clinics – that are additional to the normal range of health services provided in schools. Efforts to maintain or increase the coverage of such services are, moreover, often beyond the means of most low-income countries. Poverty is a key consideration in the design of school health and nutrition programs for most low-income countries. The negative correlation between ill health, malnutrition, and income level is clearly demonstrated in both cross-country comparisons and individual country analyses, partly because lower incomes and higher poverty themselves promote disease and inadequate diets²⁵. Similarly, children who are not enrolled in school are targeted by school health and school feeding programs generally come from households with lower income levels. Furthermore, the educational impact on disease and poor nutrition is greatest for the poorest children²⁶.

The case for overcoming barriers to coverage is strong. Traditional medical practice, for example, emphasizes treatment after individual diagnosis. Analysis of health interventions that are integrated into more inclusive school health and nutrition programs, such as deworming and micronutrient supplements, suggests that mass approaches are preferable – on technical, economic, and equity grounds – to approaches that require diagnostic screening²⁷.

Since most countries are not starting from scratch, the biggest challenge is how to optimize existing programs. Many countries already have a school health and nutrition program – which often includes school feeding component – that needs to be modified to address new priorities and needs. In most cases the aim is to expand the geographical coverage of an existing program so that it reaches poor and marginalized children. Among the things that countries have done to achieve this goal are the following:

- + Change an existing program from being primarily health-system based to an education sector model that uses the network of schools as an extensive delivery platform.

For example; look for existing programs targeting the health of school age children and identify opportunities for the education sector to be used as a platform for reaching this particular group.

- + Complement an existing urban school program with a new program targeting rural areas of the country.

For example, identify an existing program, which is being implemented in an urban setting and think of ways it could be adapted to fit the needs of a rural area. Begin with designing a rural model, which can be tried out in one part of the country then improved for a larger scale up.

- + Supplement an existing comprehensive model that has yet to go to scale with a simplified model that can rapidly be rolled out nationally.

For example, identify an existing program that has yet to go to scale and organize a small planning workshop to simplify by reducing the number of interventions or starting to implement in an easy to reach geographical area. Consult with or seek a consultation with a technical expert to run by a more simple operational model before implementing

25. Bundy, D. 2011. Rethinking School Health; A Key Component of Education for All. The World Bank: Washington DC. Available at: <http://documents.worldbank.org/curated/en/900271468332690641/Rethinking-school-health-a-key-component-of-education-for-all>

26. *ibid*

27. Jukes, M. 2007. School Health, Nutrition and Education for All: Leveling The Playing Field. CABI Publishing. Page 111

For example of these approaches in action across 14 countries, please refer to the Global School Feeding Sourcebook produced by the Partnership for Child Development²⁸.

2.1 The political economy is crucial to the success of multisectoral programs

The diverse experiences of school health and school feeding programs suggest that certain policy elements are common contributors to success. In order to ensure that your country's Inclusive School Health Program is a success, work towards achieving the following actions:

- + Make sure that your country's Inclusive School Health Program focuses on education outcomes by making an explicit link between school health and nutrition programs and education sector priorities (especially SDG #4 "Ensure inclusive and quality education for all and promote lifelong learning"). It will also help to ensure the overall commitment of the education sector to program implementation.
- + Work on developing a formal multisectoral policy and a memorandum of understanding between the health and education sectors. Education sector actions in the health sphere require the explicit agreement of the health sector. Potential tensions can be resolved by agreeing on sectoral responsibilities at the outset, usually via a formal policy implemented through a memorandum of understanding. Failure of the two sectors to enter dialogue can effectively stop programs, while consensus can result in programs rapidly going to scale.
- + Initiate a process of wide information dissemination and consultation, especially with local communities. There are multiple stakeholders, implementers, enablers and gatekeepers in a school health and nutrition program. A process of consultation will establish ownership and identify obstacles before they constrain progress. The consultative process should involve at least community-based organizations (CBOs), NGOs, faith-based organizations (FBOs), disabled people organizations (DPOs), the local community, students, and teacher associations. Parents want to be reassured that the education sector has the support of the health sector when implementing health interventions.

2.2 Simple programs that build on existing platforms are more likely to go to scale and reach the school children most in need

Trying to achieve many results at the same time, countries often attempt to design big programs, which are often too complex to go to scale. In order to avoid this from happening, focus resources on the following key goals:

- + Use existing infrastructure as much as possible. Building on existing curriculum opportunities and teacher networks will accelerate implementation and reduce costs. Programs that rely on the development of new delivery systems – such as mobile school health teams or a cadre of school nurses – are expensive and complicated to take to scale. Such programs are almost inevitably fail to reach the neediest, since costs rise in proportion to the remoteness of targeted beneficiaries.

For example, look at existing infrastructures that are working well and have been successful during implementation and/or scale up. In using teachers, for example, look for existing in-service teacher training opportunities that could be utilized as a platform to introduce additional information/training (i.e. topics that cover children with disabilities and the importance of screening; information about health and disability service providers, etc.)

- + Build programs around simple, safe, and familiar health and nutrition interventions. Success in rapidly reaching all schools is crucially dependent on stakeholder acceptance, which is more likely if the interventions are already sanctioned by location and international agencies and in common use in targeted communities.

For example, in the areas where community participated in disability awareness campaigns may be good areas to introduce school-based disability screening starting with targeting one or two disabilities/impairments (i.e. vision or hearing screening and provision of eye glasses and hearing aids or antibiotics for infections).

28. Drake, L., Woolnough, A., Burbano, C. & Bundy, D. 2016. Global School Feeding Sourcebook : Lessons from 14 Countries. <https://openknowledge.worldbank.org/handle/10986/24418> License: CC BY-NC.

2.3 Most programs rely on the public sector, but there can be an important role of civil society and the private sector.

There are compelling arguments for public investment in school health and nutrition programs, such as their contribution to economic growth, high rates of return, and large externalities. The majority of interventions are identifiably public goods. On the other hand, there is evidence of market failure that precludes private provision of programs. Although public resources may play the major role, contributions from other sectors can be important. NGOs have proven particularly effective in supporting school health and school feeding programs especially at the local level. While market failure has precluded the private sector from effectively implementing entire programs, there are examples of successful contributions by private actors, particularly in dense urban populations and middle-income countries.

For example, conduct a service provider/NGO mapping exercise identifying services and service providers in different parts of the country. This information may be useful in trying to find support mechanisms during implementation and will help set up service provision and referral networks.

2.4 Targeting often lies at the heart of practical success.

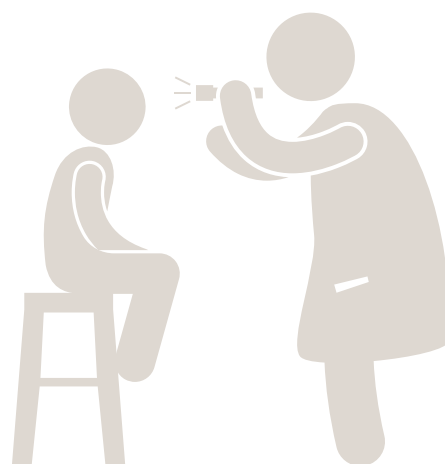
Targeting reduces costs, facilitates management, and may optimize outcomes. The deworming program in Kenya, for example, reached more than 70% of needy children by operating in less than one-third of the country²⁹. A mapping exercise may be an effective tool in planning targeted interventions or planning implementation scale up.

For example, when designing a targeted intervention look for areas where (a) it is most prevalent; or (b) it is easy to begin implementation because of availability of services (for example, eye clinics or specialized health centers when working with disability screening and service provision). Targeting based on informed decisions can lead to program success because the program has potential of reaching many children and/or will be easy/easier to begin implementation.

2.5 School health and nutrition programs can be effectively mainstreamed into the education sector.

Education Sector Plans (ESPs) set country priorities for the education sector and typically reflect funding needs for 5 to 10 years. Education sector planners are increasingly recognizing the relevance of school health and nutrition to their education goals and beginning to take responsibility for implementing these programs³⁰. Increasingly planners are locating these programs in education service administrations and including them in education sector plans. Since the funding channels for certain aspects of the programs are often unfamiliar to the education sector, such as funding for the procurement of drugs and food, one solution is to embed the various components of SHN programs within an overall sector wide approach. This approach has the added advantage of allowing access to pooled funding from multiple sectors, potentially including the health sector.

Work closely with education sector planners by making sure they are aware of the country's existing school health program. Find out when educator sector planning meetings take place and request a timeslot to present the findings of existing school health and nutrition program or plans for future inclusive school health and nutrition program.



29. USAID. 2011. First Principles: Designing Effective Education Programs for School Health in Developing Countries Compendium. Available at: www.equip123.net/docs/E1-FP_Health_Comp_Web.pdf

30. Sarr, B., McMahon, B., Peel, F., Fernandes, M. & Drake, L., 2016. The Evolution of School Health and Nutrition in the Education Sector 2000–2015. Partnership for Child Development, Imperial College London. Manuscript in preparation

2.6 Key principles to consider in starting and implementing a school health program

Principal #1: Facilitate and support strong cross-sector policies and relationships across the ministry of education and the ministry of health

Because school health programs rely and build on services often administered across these two ministries, it is important to put in place the policy framework that fosters collaboration in the delivery of simple health services in schools. Education sector actions in health require the explicit agreement of health sector professionals. The potential tensions between these two ministries are often eased by creating memoranda of understanding that clearly document what each ministry agrees to do. Often these documents lead to formalized policies that build a solid foundation for long-term school health programs to succeed.

Development partners working in education and health sectors could play an important role in bringing these two ministries together to begin this important dialogue. It could be done via a joint meeting or an establishment of a committee that would have representatives from both ministries with a clear mandate to work together. It could also be achieved by inviting Ministry of Health to a planning meeting or a workshop to design a comprehensive school health program.

Country example from the SHIP:

Senegal

In Senegal the SHIP initiative has brought together the decentralized ministries of education and health units to collaborate and implement a relatively large scale health screening intervention in schools in one particular district in the region of Louga. Ministries of education and health officials as well as teachers and health specialists worked together to identify resources, develop training tools and various referral and results forms that did not exist before, train teachers, coordinate vision screening for refractive errors and eye health for over 10,000 students and teachers, and develop M&E tools.

The relationship across the two ministries was facilitated by a commitment from the national School Health and Nutrition unit and ownership of the program by the decentralized MoE and MoH officials which contributed staff and equipment.

The ministries of education and health have regional bureaus which in turn have decentralized arms in departments and districts such as the district of Louga. Health posts provide basic health care in neighborhoods and neighborhoods can have one or more schools. The neighborhoods are run by councils and schools are managed by SMCs (School Management Committees).

The SHIP put to test the working relations between the decentralized structures of the ministries of education and health. The education sector identified targets schools to reach 10,000 students and worked with MoH to adapt and develop training manuals on vision screening and deworming and train a core number of teachers. Vision screening was conducted in a first phase by trained teachers. Students were then referred to a team composed of two optometrists, an ophthalmologist and aides who confirmed teachers findings before proceeding to prescribe glasses and/or eye health medication which are being provided free of charge as part of the social and ethical commitments of the SHIP to the communities which are in a large number from resource-limited settings.

The School Health and Nutrition national unit has developed a school health policy and a memorandum of understanding with the ministry of health. However, the SHIP helped to identify gaps in capacity and coordination among others that can be addressed in the revised policy documents. For example, the deworming campaign has not started in the target district despite engagements taken by MoE and MoH officials during the national workshop. There is a need to develop a national School Health and Nutrition strategy and a multisectoral coordinating body. Currently, the School Health and Nutrition unit is not sitting in any inter-ministerial SHN meeting. The SHIP has also helped set avenues that can be used by the School Health and Nutrition unit to meaningfully mainstream school health in education sector plans.

Principal #2: Focus on education outcomes to justify school health programming.

Educators should engage in school health when they are convinced of the benefits of health for learning and schools. The health sector should tap into education sector and its infrastructure and human resources only when it is understood that by accomplishing health goals, this sector is also supporting the goals of educators and the strategic plans of the ministry of education. Although health goals may be important links to learning capacity and school participation, without emphasizing the primacy of education goals, ministries of education cannot justify health actions.

When designing Inclusive School Health and Nutrition program the technical experts from the Ministry of Education should engage with education sector planners and policy makers to stress the connection between the health of school children and better education outcomes. Healthy children learn better.

Country examples from the SHIP:

Ethiopia

In Ethiopia The MOE has gained significant interest in the ability of School Health and Nutrition to help achieve their education sector goals. The SHIP initiative has accelerated the MOE drive to include School Health and Nutrition in the curriculum revision process and in the EMIS framework

Cambodia

During the pilot project in Cambodia in 2012, Leap, a 12 year old from grade 6 got her first pair of eye glasses. At the start of SHIP in 2016, the SHIP team followed up with Leap's progress. The team was pleased to find Leap successfully transition from primary to lower secondary and from lower secondary to high school, both being critical transition points where many students drop out, especially girls. Leap is a motivated student who shared that learning was so much easier with her glasses. She is full of ambition and is determined to become a lawyer.

Principal #3: Explore global frameworks for school health policies and programs (such as FRESH and Health Promoting Schools [HPS]) with all stakeholders in the ministry of education, the ministry of health, the ministry of community development, communities, and schools.

Assisting the ministry of education gather stakeholders and explore the work of other education systems and the platforms they have used to build school health programs helps developing countries learn from experiences of other developing country programs. The global network of school health practitioners has contributed to the FRESH Framework as well as to WHO's HPS framework, both of which provide important guidance for ministries building or strengthening school health systems.

Look for and request participation in global and regional school health and nutrition events – regional capacity building workshops, global conferences and meet ups, networking events.

For example:

- + Annual School Health and Nutrition Training Courses (Partnership for Child Development): <https://www.imperial.ac.uk/partnership-for-child-development/>
- + Comparative and International Education Society annual conference: <http://www.cies.us/>
- + Global Child Nutrition Forum: <http://gcnf.org/>
- + The World Education Forum: <http://www.theewf.org/>

Country example from the SHIP:

Ethiopia

In Ethiopia at the beginning of the year during the launch of the School Health and Nutrition strategy, and in coordination with the scoping mission in Ethiopia for SHIP, a Systems Approach for Better Education Results (SABER) analysis was conducted which analyzed the current situation of school health policies in Ethiopia. The outcomes of this activity showed Ethiopia to be in the 'emerging' category for all policy goals. Many officials from the MOE and MOH attended this workshop.

Principal #4: Work on selecting simple school-level activities that are possible for teachers to implement in order to gain support from education professionals; select activities that promote national education goals in enrolment, attendance, and attainment.

Selecting simple, targeted, but effective activities often lies at the heart of a successful program. Complex interventions that address many health problems simultaneously may sound good, however these can run into difficulty when a government tries to implement and sustain them. When initiating a school health program, start by targeting activities geographically where they are the most needed, such as deworming in regions most affected by soil-transmitted helminthes and school feeding in regions where malnutrition or food insecurity is highest.

Country example from the SHIP:

Cambodia

Cambodia is a good example of how a project can evolve from a small stand-alone pilot to inclusion in the national Education Strategic Plan/Annual Work Plan. The pilot project demonstrated that schools can effectively offer basic vision screening facilitated by selected trained teachers. In addition, the Ministry of Education, Youth and Sports (MoEYS) found evidence that this is a relatively straight-forward intervention, which can impact successful participation in education significantly. Therefore, it was decided that this activity should be included in the Annual Work Plan 2016 and scaled up to three provinces. When SHIP was launched and the project agreement with MoEYS signed, it was agreed that SHIP would facilitate further expansion of the activities in the three target provinces. And as Cambodia is preparing for a new cycle of funding from the Global Partnership for Education, the vision screening implementation this year will provide important input for the dialogue about the formulation of the new Education Strategic Plan.

Principal #5: Invest in building the capacity of ministry of education staff in understanding the costs and cost-effectiveness of school health programs.

Simple programs that are cost effective are much more likely to be sustained and be taken to scale by the ministry of education. Invest in making technical decisions that are based on best global research about the cost of interventions, calculate the savings to be gained by targeting interventions only where needed, and analyze which interventions provide the greatest improvement to education outcomes help build capacity within the ministry of education for data-driven decision making while building knowledge and skills about school health. Decision driven by cost-effectiveness will also make the maximum best use of existing infrastructure where possible, such as teacher training system, the inspectorate, or perhaps the ministry of health's drug distribution system.

If the ministry of education currently does not have sufficient capacity, it may be worth looking into consulting an international or national technical expert to work with technical experts at the ministry of education. Build capacity by working together to understand the benefits of school health and nutrition programs and increasing operational/implementation capacity by designing and implementing a simple, integrated school health program based on country's priorities.

Country examples from the SHIP:

Ethiopia

The MOE in Ethiopia is aware of the cost efficiencies in integrating school health. The Enhanced School Health Initiative (ESHI) pilot program has been collecting data on costs and efficiencies for integration over the past four years. The results of this analysis are communicated with the MOE frequently, and MOE officials have presented the data in roundtables, symposiums and other country visits.

Cambodia

During consultations between Sightsavers and the Ministry of Education in preparation of the SHIP project agreement for Cambodia, it was proposed that the project funds would be directly managed by the Ministry of Education to enable ownership of the project. The Department of Finance worked closely together with the different technical departments involved and held the overall responsibility for budget management as well as the financial reporting. Staff from technical departments were placed in charge of budget preparations for specific project activities. Making different departments accountable for managing

the project finances obviously increases understanding of the costs of the project and eventually cost-effectiveness as well.

Principal #6: Work on establishing indicators that will show the impact of health activities on education goals, including attendance and cognitive goals.

Working on establishing clear links between school health and education sector outcomes and priorities, including EFA goals, gender and equity, and inclusive education, helps ensure full education ownership and commitment to school health.

Please refer to Monitoring and Evaluation Guidance for School Health Programs and eight core indicators to support FRESH³¹.

Principal #7: Strive to work with existing systems and infrastructure, such as teacher training systems and education management information system (EMIS), to build capacity in the education sector for long-term management of school health programming.

Working with education sector systems and infrastructure is a cost-effective and efficient way to reach school age children with any intervention and ensures that school health programs do not duplicate implementation strategies of the ministry of education. Building on these systems ensures cost-effectiveness in school health and increases the likelihood of systemic uptake within the ministry of education. Building simple health data into EMIS systems not only builds host country capacity for school health programming and planning but also allows country-to-country comparison when multiple countries agree to collect similar data in their EMIS.

When designing an intervention targeting children with disabilities, work closely with inclusive education unit making sure that interventions are supported by the overall inclusive education strategy.

If your ministry of education does not have a specific unit responsible for education of children with disabilities, find out which existing programs are aimed at inclusion of children with disabilities in education (for example, inclusive teacher training module as part of teacher training; training teachers on deworming and other school health interventions as part of their pre-service teacher training; provision of assistive devices

or in-classroom support for children with disabilities; inclusive curricula or other support system for children with disabilities) and work on creating a joint program strategy.

Country examples from the SHIP:

Ethiopia

In Ethiopia, the Inclusive Education Directorate, with support from the Finnish Development Cooperation has been developing the concept of school based resource centers for inclusive education. So far 113 resources centers have been set up. Currently there is a referral system in place for students identified by teachers with vision and hearing impairments and for students with physical disabilities. The Education Sector Development Plan V set the scale up of resource centers as a core target for the inclusive education pillar.

The SHIP initiative foresaw a strong opportunity for alignment and partnership between resource centers on supporting the vision screening component. To facilitate this process, key representatives were invited to the School Health and Nutrition stakeholder's workshop to discuss these opportunities, seeing resources centers as a useful resource in Ethiopia for streamlining School Health and Nutrition in a resource poor environment. Plans were made and budgeted for visits to the sites for programmatic planning.

On the deworming front, all efforts were deployed to align the pilot with the national priorities and activities. Master regional trainers for the pilot programme were trained by the MOH in Addis Ababa during the national deworming. Several meetings were held with MOH NTD focal point to ensure alignment with national service delivery structures and use of national training materials. It created delays for the project and rendered integration of vision screening and deworming more difficult but bolstered a sense of ownership that will support future use of findings in government policies and guidelines.

31. Available here: <http://www.savethechildren.org/atf/cf/%7B9def2ebe-10ae-432c-9bdo-df91d2eba74a%7D/FRESH%20MONITORING%20AND%20EVALUATION%20GUIDANCE%20FINAL.PDF>

Ghana

Ghana, in order to ensure the SHIP project is properly aligned to existing government programs, it was recommended the project is aligned to the inclusive education implementation so as to make it more relevant to what was on the ground. Ghana's inclusive education policy was launched in May 2016 with the support of UNICEF who is supporting its implementation in 20 districts across the country in the hope that it would be gradually scaled up to all public schools across the country. The policy is expected to provide a guiding framework for the roll out of a system which takes into account the peculiar needs of all Ghanaian learners, acknowledges that: every child has the right to quality education, that all children can learn and benefit from education, that no child should be excluded from, or discriminated against within, education on the grounds of race, colour, sex, language, age, class or social group, religion, political or other opinion, national, ethnic origin, poverty, disability, birth, or any other status.

Denkyembour district (where the SHIP project in Ghana was implemented) was not one of the districts implementing inclusive education, and the SHIP project was seen as an opportunity to expand the inclusive education implementation hence the suggestion by the SpED to include hearing screening, screening for cognitive disabilities in the SHIP project. The Ghana SHIP project was redesigned according to the SpED's request. This led to the screening of 4753 pupils within the age range of 4 to 12 years for hearing impairment out of which 109 were confirmed to have disabilities and/or impairments

For the project, aligning with the inclusive education implementation has brought a lot of sensitization and awareness creation on school health activities. Prior to the SHIP, NGOs and the ministry of education were responsible for implementing School Health and Nutrition activities with the exception of deworming which is done in collaboration with the ministry of health. However with the SHIP project, the involvement of the ministry of health through the St. Dominics hospital and the district health directorate has been very substantial. It is important to note that as a result of the project, public school teachers can confidently refer pupils they suspect to have hearing or vision challenges to the St. Dominics hospital and the Eye care unit and they would receive the appropriate care.

The project has enhanced the collaboration between the hospital, the district health and education directorates and the schools. The hospital and the education directorate are discussing the sustainability of the project in the district and are planning to seek support to build the capacity of private school teachers as well so they could also screen their pupils and refer suspected cases for the necessary assessment and treatment where needed. This they hope would ensure all the children in the district are given equal opportunity to quality health and education. With this it is obvious that the key actors, (MOE and MOH) would be able to collaborate effectively to implement other SHN interventions.



In addition to taking into account the seven principles when designing a successful School Health and Nutrition Program, the checklist below provides a guide for determining key criteria to ensure a well-designed School Health and Nutrition program that addresses the needs of the school age child to ensure their health and learning.

1. Education Sector Policies

A strong policy framework that supports inclusive school health is critical to the development of a systematic and sustainable national program. Endorsement by high level officials from relevant ministries enables effective action at all levels during planning and implementation stages. Key to success of any school-based health program is the partnership between the Ministries of Education and the Ministries of Health, and key policy decisions to be made include the joint identification of roles and responsibilities for each element of the program.

Key Processes

- + Objectives of any SHN program should be defined to provide context. They should support and build upon current policy and strategy.
- + A strategic partnership on SHN or inclusive education should be developed between the MoH and MoE as well as with other stake holders such as UNICEF and development organizations working in the field. This should include identifying and co-coordinating any current activities in the area to be targeted being conducted by partners and local government.
- + A memorandum of understanding (MoU) should be drawn up between MoH and MoE (or relevant ministries) to define which areas of the program each have responsibility for, responsibility should be made where possible according to Ministerial expertise and capacity.
- + A Joint Committee or Task Force is required to oversee and co-ordinate the processes, and take the program forward as a unified education and health endeavor.
- + Finally a policy for action should be developed specifically for the intervention (e.g. deworming or vision screening). Guidelines should be based on nationally and internationally agreed frameworks as far as possible. For example, for deworming, it should be based on WHO guidelines. In the case of school based deworming, MoH will be responsible for procurement of the medicines

while MoE for the delivery by teachers of mass deworming. Consideration into inclusion of out of school and vulnerable children is a necessity in policy and programming.

- + Education sector plans, school health policies and health sector plans should all specify relevant school health activities (i.e. deworming or vision screening). If this is not the case, documents should be reviewed to include deworming and vision screening. This will enable funding applications to be submitted to funding agencies including the FTI for catalytic funds.

2. Management and Planning Checklist

Appropriate planning and design for the program is a necessity, and will reduce the cost of the program. Ensuring appropriate expertise is in place in the country is essential to determine time frames and capacity to undertake a program.

Key Processes

- + Appropriate targeting of an intervention, for example STH, trachoma or schistosomiasis. Gaps in data should be determined
- + Identifying scale of the program through determining the number of schools and children in the area to be treated.
- + Use of appropriate guidelines set out by international and national regulatory bodies such as the WHO should be consulted.
- + Accurate estimations of materials such as drugs or spectacles that would be required to cover the target area.
- + Identification of suppliers and procurement of materials required. Consultation with country customs is important here to ensure that government programs are not required to pay duty tax on a government program procuring in a timely fashion to ensure that 75% of school age children at risk are dewormed.
- + Development of training materials, training structure and training of trainers.
 - Training materials should be context specific to local languages and cultural sensitivities
 - Monitoring and quality assurance should be included as part of training
 - Strategy and materials for training on how to deal with adverse events should be included

- Include monitoring mechanisms and incorporate into education management information systems if possible.
- Consideration of what is required for adequate monitoring³²
- + Community sensitization materials should be developed including use of media such as newspapers, TV, radio, as well as Parent teacher associations and use of student to inform parents.

3. Implementation Checklist

Correct sequencing of implementation is important to ensure the smooth running of a program: making sure that materials are distributed on time for a program, that teachers are trained and follow-up referral mechanisms are in place and that communities are aware of the program for maximum impact. Monitoring is part of implementation, and it is important to understand how many children were reached by the program in each area, and to allow for streamlining of the program through understanding of challenges and limitations. In some cases (e.g. for deworming) it will be important to develop sentinel sites to measure program progress and impact over several years of administration. In other cases, such as vision screening, activities need to continue, and thus be part of regular education sector plans and activities.

Key Processes

- + Materials required by teachers (such as drugs, training and monitoring materials) are distributed according to need to each area, district and school via training cascade.
- + All teachers involved in the program are trained, not only on implementation strategy, but also importance of the program, how to store materials, how to conduct activities on the day, how to deal with any unforeseen circumstances (such as adverse events).
- + Community sensitization materials should be disseminated, including high level support from politicians for the program, extensive media coverage (radio, TV, posters) in local languages, sensitization campaign for awareness of benefits of the program, safety considerations, any potential adverse effects

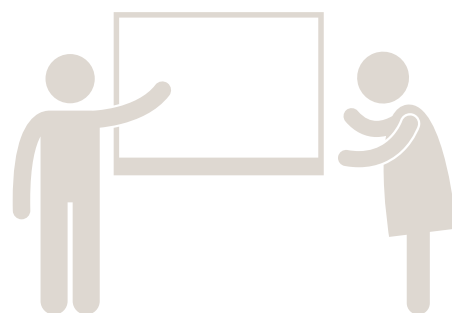
and how to deal with them, dates and locations of the program and details on who is invited to participate (out of school children, pre-school children, pregnant women, etc).

- + Program monitoring on the day should be conducted by the teachers, as well as spot checks by nominated monitoring officials at frequent locations to check the program is running to plan.
- + Plans should be made clear for how to deliver monitoring forms back to central level, and this should be done soon after the SHN activity.

4. Complimentary Action Checklist

SHN programming is multi-sectoral by nature, and will require more than just implementation of services, but also supporting activities to support, such as health education, advocating for safe school environments that are inclusive and accessible. Some of these may require policies to support them.

- + Include surrounding control activities and messaging, such as campaigning for hand washing, face washing, wearing shoes and prevention as necessary.
- + Supporting policies should be considered to improve water, hygiene and sanitation facilities in schools. Ensure that these facilities are accessible, and address the needs particularly for female students.
- + Where possible SHN programs should be coordinated, as training, delivering materials and monitoring are all expensive and time consuming activities for teachers and program budget. Certain SHN activities are complimentary, for example school feeding and deworming.



32. For examples of these, please refer to the Monitoring and Evaluation Guidance for School Health Programs and eight core indicators to support FRESH: <http://www.savethechildren.org/atf/cf/%7B9def2ebe-10ae-432c-9bd0-df91d2eba74a%7D/FRESH%20MONITORING%20AND%20EVALUATION%20GUIDANCE%20FINAL.PDF>

Section 3: Technical Guidelines for vision screening and deworming

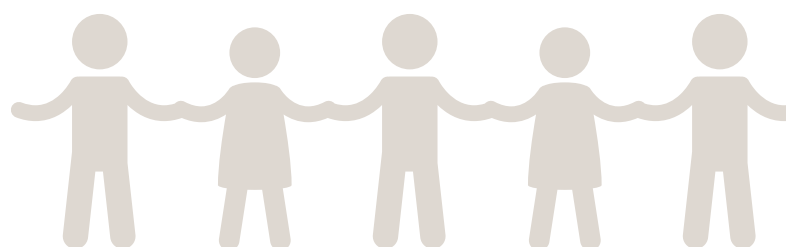
Intended audience: Technical counterparts – health experts/specialists and refractionists.

Please refer to the guidelines for School-based Vision Screening and Deworming produced as part of the SHIP initiative.



Section 4: Key Resources consulted:

1. USAID. 2011. First Principles: Designing Effective Education Programs for School Health in Developing Countries Compendium. Available at: www.equip123.net/docs/E1-FP_Health_Comp_Web.pdf
2. Bundy, D. 2011. Rethinking School Health: A Key Component of Education for All. The World Bank. Available at: <http://documents.worldbank.org/curated/en/900271468332690641/Rethinking-school-health-a-key-component-of-education-for-all>
3. UNESCO. 2002. FRESH: a comprehensive school health approach to achieve EFA. Available at: <http://unesdoc.unesco.org/images/0012/001255/125537e.pdf>
4. Save the Children. 2013. The School Health and Nutrition Health Education Manual. Available at: <http://resourcecentre.savethechildren.se/library/school-health-and-nutrition-health-education-manual>
5. Partnership for Child Development. 2015. Integrated School Health: Teaching Manual for Health and other Extension Workers. Available at: <http://www.schoolsandhealth.org/Pages/documents.aspx#>
6. World Bank. 2016. SABER – Systems Approach for Better Education Results webpage. Available at: <http://saber.worldbank.org/>



Sightsavers

www.sightsavers.org

**Partnership for Child Development
(PCD) | Imperial College London**

www.imperial.ac.uk/partnership-for-child-development/



School Health Integrated Programming (SHIP) 2016

Design: Thoughtcraft – www.thought-craft.co.uk

Photography: Sightsavers, PCD.

Icons: Gan Khoon Lay from the Noun Project (Creative Commons License)