Monitoring and Evaluation Guidance for School Health Programs

Thematic Indicators

Supporting FRESH
(Focusing Resources on Effective School Health)

February 2014

United Nations Educational, Scientific and Cultural Organization

Save the Children

Education International
Internationale de l'Education
Internacional de la Educación
Bildungsinternationale

EDC Learning transforms lives.

UNODC United Nations Office on Drugs and Crime

AIR®

World Bank

World Health Organization

unicef

PCD The Partnership for Child Development

Contents

Cover Photo courtesy of Francis Peel, The Partnership for Child Development.

Abbreviations and Acronyms

AIDS	Acquired immune deficiency syndrome
BMI	Body Mass Index
DHS	Demographic and Health Surveys
EMIS	Education Management Information System
FRESH	Focusing Resources on Effective School Health
GARP	Global AIDS Response Progress
GSHS	Global School-Based Student Health Survey
HBSC	Health Behavior in School-Aged Children
HIV	Human immunodeficiency virus
IATT	Inter-Agency Task Team
ITN	Insecticide-treated net
KAP	Knowledge, Attitudes and Practices
M&E	Monitoring and evaluation
MICS	Multiple Indicator Cluster Surveys
NCD	Non-communicable disease
NCPI	National Commitments and Policy Instruments
PCD	The Partnership for Child Development
SHPPS	School Health Policies and Practices Study
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
UNGASS	United Nations General Assembly Special Session
UNICEF	United Nations Children's Fund
UNODC	United Nations Office on Drugs and Crime
WASH	Water, sanitation and hygiene
WHO	World Health Organization

Acknowledgments

This FRESH Monitoring and Evaluation (M&E) Guidance of Thematic Indicators was developed with the support, advice and insights of numerous individuals and organizations over the years. The FRESH M&E Coordinating Group was appointed to lead the development of this M&E Guidance and would like to thank all those who have contributed, directly or indirectly to this effort, in particular:

The FRESH M&E Coordinating Group members who over the years have remained dedicated to the development of this FRESH M&E Guidance devoting their time and expertise additional to their full-time work commitments: Michael Beasley and Kristie Watkins (The Partnership for Child Development, PCD); Natalie Roschnik and Mohini Venkatesh (Save the Children); Ulla Kalha, Ramya Vivekanandan and Scott Pulizzi (United Nations Educational, Scientific and Cultural Organization, UNESCO); Anna-Maria Hoffmann (United Nations Children's Fund, UNICEF); Giovanna Campello, Katri Tala, Wadih Maalouf, and Hanna Heikkila (United Nations Office on Drugs and Crime); Kwok-Cho Tang and Timo Stahl (World Health Organization, WHO); Carmen Aldinger (Education Development Center, Inc.); Jefferson Berriel Pessi and Delphine Sanglan (Education International); Tricia Young and Sonal Zaveri (Child-to-Child Trust); Roshini Ebenezer and Andy Tembon (World Bank); and Cheryl Vince Whitman (American Institutes for Research).

The FRESH M&E Advisory Board members and participants at the 2008 WHO meeting, 2010 UNESCO meeting, and 2011 PCD meeting who also imparted valuable insight and advice to help move the development of this FRESH M&E Guidance forward: Maru Aregawi (Roll Back Malaria Partnership Secretariat); Isolde Birdthistle (London School of Hygiene and Tropical Medicine); Christianna Brown (Child-to-Child Trust, Institute of Education); Donald Bundy (World Bank); Vanessa Candeias, Leanne Riley, Melanie Cowan, Venkatraman Chandra-Mouli, Bruce Dick and Meena Cabral de Mello and Pamela Sabina Mbabazi (WHO); Lesley Drake, Aulo Gelli and Jane Lillywhite (PCD); Deborah Hines, Kate Newton and Nancy Walters (United Nations World Food Programme, WFP); Yossi Harel-Fisch (Israel Anti-Drug and Alcohol Authority); Seung-Hee Frances Lee (Save the Children); Christophe Cornu, Audrey Kettaneh, Yongfeng Liu (UNESCO); Kathleen Letshabo (UNICEF); and Adisak Sattam (WHO Thailand).

Independent consultants helped generate different drafts of this document and contributed with their M&E and school health expertise: Abigail Kaplan Ramage, Orlando Hernandez, Clare Hanbury, and Carmen Aldinger.

The Thematic Indicators were reviewed by experts from the 15 Thematic areas. They include:

Thematic Indicator 1: Murat Sahin (UNICEF), Natalie Roschnik (Save the Children) and Leanne Riley (WHO).

Thematic Indicator 2: Antonio Montresor and Pamela Mbabazi (WHO); Alan Fenwick (Imperial College London); and Natalie Roschnik (Save the Children).

Thematic Indicator 3: Natalie Roschnik (Save the Children) and Kristie Watkins (PCD).

Thematic Indicator 4: Timothy Armstrong, Leanne Riley, Godfrey Xuereb, and Hilda Muriuki (WHO); and Jannine Thompson (UNESCO).

Thematic Indicator 5: Sian Clarke and Simon Brooker (London School of Hygiene and Tropical Medicine); Andy Tembon and Donald Bundy (World Bank); and Natalie Roschnik (Save the Children).

Thematic Indicator 6: Habib Benzian (Fit for School International); Bella Monse (Deutsche Gesellschaft fuer Internationale Zusammenarbeit); and Poul Erik Petersen (WHO).

Thematic Indicator 7: Peter Ackland (International Agency for the Prevention of Blindness).

Thematic Indicator 8: Shelly Chadha (WHO).

Thematic Indicator 9: Tracey Goodman and Leanne Riley (WHO).

Thematic Indicator 10: Kidist Bartolomeos and Leanne Riley (WHO).

Thematic Indicator 11: Clemens Benedikt and Asha Mohamud (United Nations Population Fund [UNFPA]); and Yong Feng Liu (UNESCO).

Thematic Indicator 12: Clemens Benedikt and Asha Mohamud (UNFPA); and Colleen Keilty, Suzanne Field and Elyse Ruest-Archambault (Right to Play).

Thematic Indicator 13: Giovanna Campello, Hanna Heikkila, and Beth Mattfeld, (UNODC) and Clemens Benedikt and Asha Mohamud (UNFPA).

Thematic Indicator 14: Berit Kieselbach (WHO).

Thematic Indicator 15: Marla Petal (Risk RED).

Lauren (Lacey) English (Save the Children) assisted with proofreading and ensuring consistency.

This FRESH M&E Guidance of Thematic Indicators was edited by Anastasia Said (PCD) and designed by Helen Waller (PCD).

Introduction

This part of the FRESH (Focusing Resources on Effective School Health) Monitoring and Evaluation (M&E) Guidance provides a menu of more than 250 school health-related indicators, drawn largely from existing M&E guidance and arranged by health topic (or thematic area).

The level to which these thematic indicators have been tested or are internationally accepted varies widely by thematic area. Each thematic indicator page includes a short introduction to the health topic, including a rationale for addressing this health issue in schools and some of the recommended strategies. Within each thematic area, a list of indicators organized by the four FRESH pillars (equitable school health policies; safe learning environment; skills-based health education; and school-based health and nutrition services) and outcomes (learning; behavioral; and impact) is provided as well as reference to the data collection method and where to find more information.

Purpose and Document Use

The purpose of this document is to provide a menu of thematic indicators to support the selection of M&E Core Indicators for school health projects. These projects may focus on specific health problems or broader health or education projects which have a school health component which needs to be monitored and evaluated. For example, a project focused on HIV prevention in schools can select Thematic Indicator 11: HIV and AIDS or an education project with a deworming and micronutrient supplementation component can select relevant thematic indicators covering deworming (Thematic Indicator 2: Worms) and micronutrients (Thematic Indicator 3: Food and Nutrition).

The thematic indicators in this document are suggestions from which countries can choose. These thematic indicators are not prescriptive and some of them may change over time as they get further developed and refined. The selection of thematic indicators should be based on the purpose for which the survey is being conducted, for example, for program M&E, or program planning, and whether the thematic indicators are already being collected as part of regular surveys.

The following are the thematic indicators and thematic areas (health topics) covered:

Thematic Indicators	Thematic Areas (Health Topics)
1	Water, Sanitation and Hygiene (WASH)
2	Worms
3	Food and Nutrition
4	Physical Activity
5	Malaria
6	Oral Health
7	Eye Health
8	Ear and Hearing
9	Immunization
10	Injury Prevention
11	HIV and AIDS
12	Sexual and Reproductive Health
13	Substance Abuse
14	Violence in Schools
15	Disaster Risk Reduction

Thematic Indicator 1: Water, Sanitation and Hygiene

Rationale

Many communities have a high prevalence of diseases related to inadequate water supply, sanitation and hygiene (particularly lack of hand washing), such as diarrhea, parasitic worm infections and skin and eye diseases. Schools, particularly those in rural areas, often completely lack drinking water and sanitation facilities, or have facilities that are inadequate in both quality and quantity. Communities themselves are at risk when schoolchildren are exposed to disease because of inadequate water supply, sanitation and hygiene at school. Families bear the burden of their children's illness due to these bad conditions at school. Conversely, students who have adequate water, sanitation and hygiene (WASH) conditions at school are more able to integrate hygiene education into their daily lives and can be effective messengers and agents for change in their families and the wider community.

Girls and boys, including those with disabilities, are likely to be affected in different ways by inadequate WASH conditions in schools, and this may contribute to unequal learning opportunities. For example, lack of gender-separated private and secure toilets, latrines and washing facilities may discourage parents from sending girls to school. In addition, lack of adequate facilities for menstrual hygiene can contribute to girls missing days at school; this can even lead to girls dropping out of education altogether at puberty. Toilets that are inaccessible often mean that a disabled child does not eat or drink all day to avoid needing the toilet, leading to health problems and eventually dropping out of school altogether.

Strategies

Schools can play a key role in reducing WASH-related issues through construction of water and sanitation facilities as well as hygiene education. There are many facilities or technologies that can enhance water supply and storage, improve water quality, dispose of human feces and solid waste, improve water drainage, and increase hand washing opportunities. Hand pumps, covered water wells, and rainwater harvesting can improve water supply, while construction of pit latrines or toilets as well as hand washing facilities using a sink, bowl, or recycled container can improve sanitation and hygiene (IRC, 2007).

To minimize disease transmission, improvements in water and sanitation facilities should be accompanied by hygiene behavior change interventions as well. Hygiene interventions can focus on hand washing behavior at key times (before eating and after using the toilet or latrine), safe excreta management, and consumption of clean water (IRC, 2007). Children receiving weekly hand washing promotion and soap had 50% fewer diarrheal and respiratory infections than those not receiving the intervention (CDC, n.d.). Inadequate water and sanitation can be addressed through construction of toilets or latrines, as well as improved water access at schools. The hygiene behaviors that children learn at school – made possible through a combination of hygiene education and suitable WASH facilities – are skills that they are likely to maintain as adults and pass on to their own children.

Water, Sanitation and Hygiene Indicators Table

Indicators	Data Collection Frequency	Data Collection Methods
FRESH PILLARS		
EQUITABLE SCHOOL HEALTH POLICIES		
1. Minimum standards for education on WASH in schools are defined at national-level.	Every 2 years	Document analysis and interview with key informants
2. Percentage of schools that meet their national standards for WASH.	Every 2 years	School survey
3. Percentage of schools that promote positive hygiene behaviors, including mandatory correct use and maintenance of facilities that are systematically promoted among staff and schoolchildren.	Every 2 years	School survey
4. Percentage of schools that have facilities and resources that enable staff and schoolchildren to practice behaviors that control disease transmission in an easy and timely way.	Every 2 years	School survey
SAFE LEARNING ENVIRONMENT		
1. Percentage of schools with a functional water point at or near the school that provides a sufficient quantity of water for the needs of the school and is safe for drinking and accessible to children with disabilities.	Every 2 years	School survey
2. Percentage of schools with functional toilets and urinals for girls, boys and teachers that meet national standards and are accessible to children with disabilities.	Every 2 years	School survey
3. Percentage of schools with functional hand washing facilities and soap (or ash) available for girls and boys in the school and where hygiene is taught.	Every 2 years	School survey
4. Percentage of schools where solid waste and sludge is regularly disposed.	Every 2 years	School survey
ALTERNATIVE INDICATORS (from global surveys)		
1a) Percentage of schools with a source of clean drinking water that students can use.	Every 3 to 5 years	Global School Health Policies and Practices Study (SHPPS)
2a) Percentage of schools with separate toilets or latrines for boys to use.	Every 3 to 5 years	Global SHPPS
2b) Percentage of schools with separate toilets or latrines for girls to use.	Every 3 to 5 years	Global SHPPS
3a) Percentage of schools with facilities (e.g. sink with water) where students can wash their hands after they use the toilets or latrines or before they eat.	Every 3 to 5 years	Global SHPPS
3b) Percentage of schools where soap is provided for students to use when they wash their hands after they use the toilets or latrines or before they eat.	Every 3 to 5 years	Global SHPPS
4a) Percentage of schools where garbage is removed from school premises every day when school is in session.	Every 3 to 5 years	Global SHPPS

SKILLS-BASED HEALTH EDUCATION		
1. Percentage of schools that provide hygiene education for schoolchildren as part of the school curriculum.	Every 2 years	School survey / Global SHPPS
2. Percentage of students who received hygiene education for schoolchildren as part of the school curriculum.	Every 2 years	School survey
3. Percentage of students who have been involved in the design, development and implementation of a project to promote WASH in their school.	Every 2 years	School survey
4. Percentage of teachers who have ever received training in WASH life skills education.	Every 2 years	Training records
SCHOOL-BASED HEALTH AND NUTRITION SERVICES		
1. Percentage of schools that provide soap for hand washing (i.e. where enough soap is available for students to wash their hands more than 80% of the time, or 4 out of 5 days per week).	Every 2 years	School survey
OUTCOMES		
LEARNING		
1. Percentage of students who know and understand specific facts about hygiene and menstruation.	Every 2 years	School survey
2. Percentage of students who have positive attitudes towards specific behaviors that ensures good personal hygiene.	Every 2 years	School survey
BEHAVIORAL		
1. Percentage of students who demonstrate good hygiene practices and who are encouraging others to do the same.	Every 2 years	Student survey / observation
2. Percentage of students who always washed their hands after using the toilet or latrine during the past 30 days.	Every 3 to 5 years	Global School-Based Student Health Survey (GSHS).
IMPACT		
1. Percentage of school-age children attending school with diarrheal disease, 2 weeks prior to the survey.	Every 3 to 5 years in the case of the Demographic and Health Surveys (DHS)/ Multiple Indicator Cluster Surveys (MICS) Every 2 years for a dedicated survey	DHS/MICS or student survey
2. Percentage of students missing school (5) or more days in a school year due to illness or injury.	Every 2 years	Student survey
3. Gender equity: ratio of girls to boys in school attendance (access to education).	Annually	Education Management Information System (EMIS)

Sources and Further Information

Introduction adapted from:

World Health Organization (WHO). (2009). *Water, sanitation and hygiene standards for schools in low-cost settings.* Edited by Adams, J., Bartram, J., Chartier, Y. and Sims, J. Geneva, WHO.
http://www.who.int/water_sanitation_health/publications/wash_standards_school.pdf

Indicators partially adapted from:

UNICEF. (2011). *WASH in schools.* New York, UNICEF. http://www.unicef.org/wash/schools/

Additional resources:

Centers for Disease Control and Prevention (CDC). (n.d.) *CDC's global water, sanitation and hygiene (WASH) program impact.* Factsheet. Atlanta, USA, CDC.
http://www.cdc.gov/healthywater/pdf/global/programs/GlobalWASH-Program-Impact-Sept2012.pdf

International Rescue Committee (IRC). (2007).*Towards effective programming for WASH in schools: A manual on scaling up programs for water, sanitation and hygiene in schools.* Delft, The Netherlands, IRC International Water and Sanitation Centre. (TP series; no. 48). http://www.unwater.org/downloads/TP_48_WASH_Schools_07.pdf

Reviewed by Murat Sahin (United Nations Children's Fund [UNICEF]), Natalie Roschnik (Save the Children) and Leanne Riley (World Health Organization [WHO]).

Thematic Indicator 2: Worms

Rationale

Soil-transmitted helminthiasis, commonly known as intestinal worms, and schistosomiasis are two of the neglected tropical diseases that affect hundreds of millions of school-age children worldwide, with the greatest number of infections in sub-Saharan Africa and Southeast Asia. Although relatively few deaths are estimated to be directly attributable to worms, mortality due to schistosomiasis in rural Africa is probably underestimated and could cause up to 250,000 deaths per year.

The significance of these infections for schoolchildren lies in their chronic effects on health and nutrition. Worm infections in children aged 2 to 14 years (a time period when they should be undergoing intense physical and intellectual growth) has negative effects on growth, nutritional status (particularly levels of iron and vitamin A), physical activity, cognitive development, mental concentration, and school performance. Adolescent girls are particularly at risk of anemia, aggravated by parasitic infections. In developing countries, more than 850 million school-age children are at risk of morbidity due to soil-transmitted helminthiasis or schistosomiasis (WHO 2011). Schools provide an ideal setting in which to control these diseases and in this age group.

Strategies

School-based mass deworming is one of the most cost-effective interventions. Moreover, the benefits of a school-based control intervention can accrue to other high risk groups (e.g. preschool children and pregnant women) and to the community at large. Long-term interventions to reduce transmission of worms include: improvements to the water and sanitation situation (see Thematic Indicator 1: WASH); skills-based hygiene education focusing on the use of latrines; hand washing with soap at key times; clean water supply; and management and supportive school health policies to encourage behavior change in the school and in the community.

Worms Indicators Table

Indicators	Data Collection Frequency	Data Collection Methods
FRESH PILLARS		
EQUITABLE SCHOOL HEALTH POLICIES		
1. Existence of a national-level policy recommending school-based deworming.	Every 2 years	Policy analysis
SAFE LEARNING ENVIRONMENT		
See Thematic Indicator 1: WASH		
SKILLS-BASED HEALTH EDUCATION		
1. Percentage of classes participating in at least one health education activity (focused on prevention of parasitic infection) (WHO, 2011).	Every 2 years	School survey
SCHOOL-BASED HEALTH AND NUTRITION SERVICES		
1. Percentage of schools participating in the (deworming) program (WHO, 2011)	Annually	School monitoring
2. Deworming coverage (percentage of schoolchildren who received the deworming drug (WHO, 2011)	Annually	School monitoring by questionnaire
OUTCOMES		
LEARNING		
1. Percentage of students and teachers who know the main ways to prevent soil-transmitted helminth infection: use latrines to defecate, and wash hands with soap at key times.	Every 2 to 3 years	KAP (Knowledge, Attitudes and Practices) Survey
2. Percentage of students who know the main ways to prevent schistosomiasis infection: by not urinating or defecating in water.	Every 2 to 3 years	KAP survey
BEHAVIORAL		
1. Percentage of students and teachers observed washing hands with soap after going to the toilet.	Annually	School survey/ observation
2. Percentage of students who report usually using the latrine when they defecate at school and home.	Every 2 to 3 years	KAP survey
3. Percentage of learners who report not urinating in the water in the last month.	Every 2 to 3 years	KAP survey
IMPACT		
Parasitological indicators		
1. Prevalence of any and each soil-transmitted helminth infection (WHO, 2011).	Every 2 to 3 years	Stool survey by health professionals
2. Prevalence of intestinal schistosome infections (WHO, 2011).	Every 2 to 3 years	Stool survey by health professionals
3. Prevalence of any hematuria or parasite eggs in urine (WHO, 2011).	Every 2 to 3 years	Urine survey by health professionals

4. Proportion of "heavy intensity" infection with any and each soil-transmitted helminths infection (WHO, 2011).	Every 2 to 3 years	Stool survey by health professionals
5. Proportion of "heavy intensity" intestinal schistosome infections (WHO, 2011).	Every 2 to 3 years	Stool survey by health professionals
Morbidity indicators		
6. Proportion of children with clinical signs or symptoms (e.g. pot belly) (WHO, 2011).	Every 2 to 3 years	Clinical survey by health professionals
7. Percentage of children with anemia and severe anemia (WHO, 2011).	Every 2 to 3 years	Clinical survey by health professionals

Sources and Further Information

Introduction adapted from:

World Health Organization (WHO). (2011). *Helminth control in school-age children: A guide for managers of control programmes* – 2nd ed. Geneva, WHO. http://apps.who.int/iris/bitstream/10665/44671/1/9789241548267_eng.pdf

Reviewed by Antonio Montresor and Pamela Mbabazi (WHO); Alan Fenwick (Imperial College London); and Natalie Roschnik (Save the Children).

Thematic Indicator 3: Food and Nutrition

Rationale

Global nutrition priorities focus on the first 1,000 days of life since most stunting and long-term consequences of poor nutrition takes place before a child reaches 3 years of age. However poor nutritional status and hunger amongst schoolchildren also has serious effects on longer term health and educational outcomes. Hunger and micronutrient deficiencies, particularly anemia have been shown to negatively affect their ability to concentrate in class and attend and complete schooling. Iron deficiency anemia is one of the most common micronutrient deficiencies amongst school-age children, affecting around 50% of school-age children worldwide (Jukes *et al*., 2008) and reducing children's ability to pay attention, participate and learn in school. Micronutrient deficiencies are caused by a variety of problems including parasitic infections such as worms and malaria, and poor quality of diet. Similarly, if a child is hungry at school, it will affect his or her ability to pay attention, learn and attend regularly. Children with adequate diets score higher on tests of factual knowledge, and among well-nourished people acute illness and disease tends to be less frequent. Healthy nutrition also contributes to decreasing the risk of leading chronic diseases such as obesity, heart disease, cancer and eating disorders. People who are well-nourished are also more productive (WHO, 1998).

The education system offers a unique opportunity to improve children's nutritional status and develop healthy nutrition behaviors, which in turn can improve the nutrition of girls, future mothers and the next generation of children.

Strategies

School-based micronutrient supplementation is a highly cost-effective strategy to address the "hidden hunger" of micronutrient deficiencies, particularly iron deficiency anemia. WHO recommends intermittent supplementation with iron amongst preschool and school-age children where the prevalence of anemia is over 20% (WHO, 2011). Combining iron supplementation with other micronutrients such as vitamin A or as a multiple micronutrient supplement may have additional benefits where multiple micronutrient deficiencies are present (Save the Children, in press). Micronutrient supplementation is typically given after deworming.

School feeding interventions typically provide school meals, snacks or take-home rations to support equitable access to education among the most vulnerable and food-insecure population groups. School feeding can help increase school enrolment and attendance (especially with girls through take-home rations) and improve concentration by addressing short-term hunger, cognitive abilities and educational attainment. School meals have shown to produce a small, but significant effect on weight gain and can also help reduce micronutrient deficiencies through the use of fortified foods (Kristjansson et. al., 2009). If the food is produced locally, known as home grown school feeding, it may also benefit local farmers, producers and processors by generating a stable, structured, and predictable demand for their produce, thereby building the market and benefiting the wider community.

Nutrition education in schools provides learners with the knowledge, skills and motivation to make wise dietary and lifestyle choices, building a strong basis for a healthy and active life. Whether food supplies are scarce or abundant, it is essential that people know how best to use their resources to access a variety of safe and good quality foods, to ensure nutritional well-being. Nutrition education in schools should be participative, practical, skills building and adapted to the local context and resources available. Children will then learn, for example, how to achieve a good diet with limited means, what food is nutritionally valuable, where to find it, how to prepare food safely and make it appetizing, and how to avoid food dangers (FAO, 2005).

School gardens can be a powerful tool to improve the effectiveness of nutrition education by providing an opportunity for children to learn how to grow healthy food and how to use it for better nutrition. This can best be done if the fresh garden produce, such as fruits and vegetables, contributes to an existing school feeding program which provides the bulk of the diet. Beyond this, school gardens also serve for environmental education and for personal and social development by adding a practical dimension to these subjects (FAO, 2010)

Food and Nutrition Indicators Table

Indicators	Data Collection Frequency	Data Collection Methods
FRESH PILLARS		
EQUITABLE SCHOOL HEALTH POLICIES		
1. Existence of a national school nutrition policy.	Every 2 years	Policy review
2. Existence of a national-level curriculum of standards for health education with a focus on nutrition.	Every 2 years	Curricula review
3. Percentage of schools that have or follow a written policy/guideline/rule about the type of foods provided in school meals.	Every 3 to 5 years	Global SHPPS
SAFE LEARNING ENVIRONMENT		
1. Percentage of schools where food for schoolchildren and staff is stored and/or prepared so as to minimize the risk of disease transmission.	Every 2 years	School survey
ALTERNATIVE INDICATOR (from global surveys)		
1a) Percentage of schools where food preparation staff are required to follow the Five Keys to Safer Food (keep clean; separate raw and cooked; cook thoroughly; keep food at safe temperatures; use safe water and raw materials)?	Every 3 to 5 years	Global SHPPS
SKILLS-BASED HEALTH EDUCATION		
1. Total number of health education sessions focusing on healthy diet and physical activity per year within the national curriculum.	Every 2 to 3 years	Curricula review
2. Percentage of schools that provided life skills-based nutrition education in the previous term.	Every 2 to 3 years	School survey
3. Percentage of teachers who have received (locally defined minimum standards of) training in nutrition life skills education.	Annually	Training records and EMIS
SCHOOL-BASED HEALTH AND NUTRITION SERVICES		
1. Percentage of schools providing micronutrient supplementation in the past year.	Annually	School activity reports
2. Percentage of students (by sex) supplemented with micronutrients.	Annually	School activity reports
3. Number of schoolchildren receiving school meals.	Annually	Monitoring reports
4. Number of school feeding days as percentage of actual school days.	Annually	Monitoring reports
5. Planned/delivered ration kilocalories (kcal/child/day).	Annually	Project documents
6. Planned/delivered ration micronutrient content (child/day).	Annually	Project documents
7. Cost of school feeding per child per year.	Annually	Monitoring reports
8. Percentage of schools offering lunch to students midway through the school day.	Every 3 to 5 years	Global SHPPS
9. Percentage of schools that offer students fruit or 100% fruit juice during a typical week.	Every 3 to 5 years	Global SHPPS

OUTCOMES		
LEARNING		
1. Percentage of students who know specific facts about nutrition and healthy life styles related to a balanced diet and how to ensure safe consumption of food and water.	Every 2 to 3 years	Student survey
BEHAVIORAL		
1. Percentage of students who usually ate fruit three or more times per day during the past 30 days.	Every 3 to 5 years	GSHS
2. Percentage of students who usually ate vegetables three or more times per day during the past 30 days.	Every 3 to 5 years	GSHS
3. Percentage of students who usually drank carbonated soft drinks less than once per day during the past 30 days.	Every 3 to 5 years	GSHS
4. Improved caloric intake in school.	Every 2 years	Student survey
5. Improved micronutrient intake in school.	Every 2 years	Student survey
6. Percentage of students who report having improved their diet and lifestyle.	Every 2 years	Student survey
IMPACT		
1. Prevalence of thinness/wasting (low Body Mass Index (BMI) for age). (<-2 BMI for age Z-scores), (>=+2 BMI for age z score)	Every 3 to 5 years	Student survey, GSHS
2. Prevalence of overweight/obesity	Every 3 to 5 years	Student survey, GSHS
3. Prevalence of micronutrient deficiencies (e.g. anemia).	Every 2 years	Student survey

Sources and Further Information

Introduction adapted from:

Bundy, D.A.P., Burbano, C., Grosh, M., Gelli, A., Jukes, M.C.H., and Drake, L.J. (2010). *Rethinking school feeding. Social safety nets, child development, and the education sector.* Directions in Human Development. Washington D.C., The World Bank. http://siteresources.worldbank.org/EDUCATION/Resources/278200-1099079877269/547664-1099080042112/DID_School_Feeding.pdf

Jukes, M.C.H., Drake, L.J., and Bundy, D.A.P. 2008. *School health, nutrition and Education for All. Leveling the playing field.* Wallingford, CABI Publishing. http://bookshop.cabi.org/Uploads/Books/PDF/9781845933111/9781845933111.pdf

Kristjansson, B., Petticrew, M., MacDonald, B., Krasevec, J., Janzen, L., Greenhalgh, T., Wells, G.A., MacGowan, J., Farmer, A.P., Shea, B., Mayhew, A., Tugwell, P. and Welch, V. (2009). *School feeding for improving the physical and psychosocial health of disadvantaged schoolchildren.* Cochrane Review. The Cochrane Collaboration. http://summaries.cochrane.org/CD004676/school-feeding-for-improving-the-physical-and-psychosocial-health-of-disadvantaged-schoolchildren

Save the Children. (in press). Micronutrient supplementation for school-age children: Rationale, recommendations and operational considerations. Washington, D.C., Save the Children.

United Nations Food and Agriculture Organization (FAO). (2010). *Setting up and running a school garden.* Teaching toolkit. Rome, FAO. http://www.fao.org/docrep/012/i1118e/i1118e00.htm

FAO. (2005). *Nutrition education in primary schools: A planning guide for curriculum development.* Rome, FAO. www.fao.org/docrep/009/a0333e/a0333e00.htm

World Health Organization (WHO). (2011). *Intermittent iron supplementation in preschool and school-age children.* Geneva, WHO. http://www.who.int/elena/titles/iron_infants/en/index.html

World Health Organization (WHO). (1998). *WHO Information Series on School Health. Document four. Healthy nutrition: An essential element of a health-promoting school.* Geneva: WHO. http://www.who.int/school_youth_health/media/en/428.pdf

For further information on the following topics consult the references and links suggested below:

School Feeding:

Adelman, S.W., Gilligan, D.O. and Lehrer, K. (2008). *How effective are food for education programs? A critical assessment of the evidence from developing countries.* Food Policy Review 9. Washington D.C., International Food Policy Research Institute. www.ifpri.org/sites/default/files/pubs/pubs/fpreview/pv09/pv09.pdf

Gelli, A. (2010). F*ood provision in schools in low- and middle-income countries: Developing evidence-based program framework.* London, The Partnership for Child Development. www.child-development.org/Lists/PCD%20Publications/Attachments/60/g_PCD_wp215.pdf

The Nutrition-Friendly Schools Initiative:

World Health Organization (WHO). (2013). *Nutrition-Friendly Schools Initiative (NFSI).* Geneva, WHO. www.who.int/nutrition/topics/nut_school_aged/en/

Reviewed by Natalie Roschnik (Save the Children) and Kristie Watkins (The Partnership for Child Development [PCD]).

Thematic Indicator 4: Physical Activity

Rationale

Non-communicable diseases (NCDs) are the leading cause of death in the world and their impact is growing. A small set of risk factors, including physical inactivity, are responsible for most of the major NCDs (WHO, 2011). Physical inactivity is the fourth leading risk factor for global mortality, and is becoming increasingly prevalent in middle-income countries, due to rapid economic development, urbanization and industrialization (WHO, 2008a; WHO, 2013a). Childhood obesity is steadily increasing in developing countries, especially in urban areas, with 35 million children considered overweight. Overweight children are more likely to remain obese into adulthood and to develop NCDs, such as diabetes and cardiovascular disease, at a younger age (WHO, 2013b). Schools provide an excellent setting to increase activity levels among children by enabling students to acquire knowledge and skills, to provide students with opportunities to be physically active through an activity-friendly environment.

Strategies

The World Health Assembly endorsed in 2004 the "Global Strategy on Diet, Physical Activity, and Health" (WHO, 2013a; WHO, 2013b) Current WHO physical activity recommendations for children and adolescents include at least 60 minutes of moderate to vigorous-intensity physical activity daily, with greater amounts of physical activity than this providing additional health benefits. Vigorous-intensity activities should be incorporated, including those that strengthen muscle and bone, at least three times per week (WHO, 2010). Schools can support these recommendations by modifying school policies and the curriculum to allow for more physical activity during the day, and creating or improving physical activity spaces and equipment.

Physical Activity Indicators Table

Indicators	Data Collection Frequency	Data Collection Methods
FRESH PILLARS		
EQUITABLE SCHOOL HEALTH POLICIES		
1. Minimum number of physical education sessions per week within the national curriculum.	Every 2 years	Policy review
2. Existence of national qualification requirements for physical education teachers, for example, presence or development of a "Framework of Standards" for teachers.	Every 2 years	Policy review
3. Existence of teaching requirements (knowledge, skills and understanding; continued professional development; and quality assurance mechanisms) for physical education in the national curriculum.	Every 2 years	Policy review
4. Average number of physical education lessons per week in schools.[1]	Every 2 years	Policy review
5. Percentage of schools where students can be excused from physical education for health reasons, cultural reasons, sex, a disability, academic achievement, or participation in other school activities.	Every 3 to 5 years	Global SHPPS

[1] Some experts recommend aiming for 120 minutes of physical education per week.

SAFE LEARNING ENVIRONMENT		
1. Percentage of schools with a safe and clean space for a physical education class.	Every 3 to 5 years	Global SHPPS
2. Percentage of schools with a safe and clean outdoor playing field that can be used for recess, sports, a physical education class, or other physical activity.	Every 3 to 5 years	Global SHPPS
3. Percentage of schools with a place where boys and girls can separately and privately change clothes before and after physical education.	Every 3 to 5 years	Global SHPPS
SKILLS-BASED HEALTH EDUCATION		
1. Percentage of schools where physical education is taught to both boys and girls.	Every 3 to 5 years	Global SHPPS
2. Percentage of schools where most of the physical education classes to students are taught by a physical education teacher or specialist.	Every 3 to 5 years	Global SHPPS
3. Percentage of schools where those who teach physical education are provided with physical education curricula, lesson plans, or learning activities to guide instruction.	Every 3 to 5 years	Global SHPPS
4. Percentage of schools where students are taught about recommendations for regular participation in physical activity, including frequency, intensity, and duration.	Every 3 to 5 years	Global SHPPS
5. Percentage of schools where students are taught the value and importance of fair play.	Every 3 to 5 years	Global SHPPS
6. Percentage of schools where students are taught basic motor skills and movement patterns needed to perform a variety of physical activities.	Every 3 to 5 years	Global SHPPS
7. Percentage of schools where students receive a grade for physical education.	Every 3 to 5 years	Global SHPPS
SCHOOL-BASED HEALTH AND NUTRITION SERVICES		
1. Percentage of schools that offer school-sponsored sports teams that compete against teams from other schools.	Every 3 to 5 years	Global SHPPS
2. Percentage of schools offering opportunities for students to participate in non-competitive physical activity or recreation clubs.	Every 3 to 5 years	Global SHPPS
OUTCOMES		
LEARNING		
BEHAVIORAL		
1. Percentage of students participating in at least 60 minutes of physical activity per day during the past 7 days.	Every 3 to 5 years	Student survey/GSHS
2. Percentage of students who went to physical education class on three or more days each week during the school year.	Every 3 to 5 years	Student survey/GSHS
3. Percentage of students who spent three or more hours per day during a typical or usual day doing sitting activities (excluding hours spent sitting at school and doing homework).	Every 3 to 5 years	Student survey/GSHS

4. Percentage of students who walked or rode a bicycle to or from school during at least 3 of the past 7 days.	Every 3 to 5 years	Student survey/GSHS
IMPACT		

Sources and Further Information

Introduction adapted from:

UNESCO. (2012). *Worldwide survey – quality physical education indicators and basic needs model.* Paris, UNESCO. http://www.unesco.org/new/en/social-and-human-sciences/themes/physical-education-and-sport/cigeps/indicators-basic-needs/

UNESCO. (n.d.). UNESCO/NWCPEA project on the development of quality physical education/ indicators and basic needs model. Paris, UNESCO. http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/SHS/pdf/nwcpea_unesco_survey.pdf

Additional resources:

World Health Organization (WHO). (2013a). *Global strategy on diet, physical activity and health: Physical activity.* Geneva, WHO. http://www.who.int/dietphysicalactivity/pa/en/

World Health Organization (WHO). (2013b). *Global strategy on diet, physical activity and health: Childhood overweight and obesity.* Geneva, WHO. http://www.who.int/dietphysicalactivity/childhood/en/

World Health Organization (WHO). (2011). Non-communicable diseases and mental health: *Global status report on non-communicable diseases 2010*. Geneva, WHO. http://www.who.int/nmh/publications/ncd_report2010/en/

World Health Organization (WHO). (2010). *Global recommendations on physical activity for health.* Geneva, WHO. http://whqlibdoc.who.int/publications/2010/9789241599979_eng.pdf

World Health Organization (WHO). (2008a). *Review of best practice in interventions to promote physical activity in developing countries.* Geneva, WHO. http://www.who.int/dietphysicalactivity/bestpracticePA2008.pdf

World Health Organization (WHO). (2008b). *School policy framework. Implementation of the WHO global strategy on diet, physical activity and health.* Geneva, WHO. http://www.who.int/dietphysicalactivity/SPF-en-2008.pdf

World Health Organization (WHO). (2007). WHO *Information Series on School Health. Document twelve. Promoting physical activity in schools: An important element of a health-promoting school.* Geneva, WHO. http://www.who.int/school_youth_health/resources/information_series/FINAL%20Final.pdf

Reviewed by Timothy Armstrong, Leanne Riley, Godfrey Xuereb, and Hilda Muriuki (WHO); and Jannine Thompson (United Nations Educational, Scientific and Cultural Organization [UNESCO]).

Thematic Indicator 5: Malaria

Rationale

Children under the age of 5 years and pregnant women are the primary targets for most malaria control programs. These populations experience the most acute symptoms of malaria, and cases are more likely to result in mortality. However, school-age children are the age group most likely to be infected with malaria parasites. Studies in Kenya, Mali, Malawi and Senegal found rates of malaria in school-age children of up to 80%, most of which are asymptomatic cases that never get treated (Roschnik, 2013). If untreated, these infections can result in anemia and reduce children's ability to concentrate and learn in school (Brooker, 2009; Brooker et al., 2008). Both asymptomatic malaria parasitism and clinical malaria contribute up to 50% of all preventable school absenteeism and 4 to 10 million school days lost per year (Brooker, 2009).

Malaria also remains one of the biggest killers of school-age children, estimated to cause up to 50% of all deaths in this age group in Africa (Brooker, 2009). In pregnancy, malaria is a major cause of low birth weight and maternal anemia and can even result in maternal death. In Mozambique, for example, 27% of deaths in adolescent pregnant girls were caused by malaria (Brooker, 2009).

Yet, while countries continue to strive to reduce and eventually eliminate malaria, school-age children which represent 26% of the population in Africa, are the least likely to sleep under bed nets or seek treatment. This is a situation that can no longer be ignored.

Strategies

Schools offer a cost-effective system through which to control malaria amongst schoolchildren and the wider community. School-based activities include skills-based malaria prevention education, promotion and distribution of insecticide-treated nets (ITNs), and school-based treatment for malaria (although the latter requires more research). Boarding schools should ensure that children sleep under ITNs throughout the malaria transmission season; that screens are present on doors and windows of boarding houses to reduce the entry of mosquitoes into dormitories, and that school dormitories are targeted by Indoor Residual Spraying activities. Strong links or partnerships with local health care facilities could help with the referral and treatment of students with malaria.

Malaria Indicators Table

Indicators	Data Collection Frequency	Data Collection Methods
FRESH PILLARS		
EQUITABLE SCHOOL HEALTH POLICIES		
1. Malaria control in schools features in a national-level policy or strategy e.g. the national malaria control policy or strategy and/or the national school health policy or strategy.	Every 2 years	Policy review
2. Percentage of schools with a written policy, plan or guide for malaria control.	Every 2 years	School survey or interview
3. Percentage of schools that have implemented at least two planned malaria control activities.	Every 2 years	School survey
SAFE LEARNING ENVIRONMENT		
1. Percentage of boarding schools that have malaria control measures in place to protect children at night e.g. ITNs over beds and/or Indoor Residual Spraying (in the last 6 months).	Every 2 years	School survey
2. Percentage of schools that have removed mosquito breeding sites on school grounds.	Every 2 years	School survey
SKILLS-BASED HEALTH EDUCATION		
1. Essential malaria prevention messages are present in the national primary school curriculum.	Every 2 years	Curriculum analysis
2. Essential malaria prevention messages are present in the national secondary school curriculum.	Every 2 years	Curriculum analysis
3. Percentage of classes that gave at least one malaria prevention lesson in the past year.	Every 2 years	School survey
4. Percentage of schools that organized a locally relevant malaria campaign that involved parents, children and community members.	Every 2 years	School survey
SCHOOL-BASED HEALTH AND NUTRITION SERVICES		
1. Percentage of schools that support a universal ITN distribution campaign.	Every 2 years	School survey
2. Percentage of students that have access to ITNs or long-lasting insecticide-treated nets at home.	Every 2 years	School survey
3. Percentage of schools with a mechanism in place for identifying and treating (or referring) sick children for malaria.	Every 2 years	School survey
OUTCOMES		
LEARNING		
1. Percentage of students who know how malaria is transmitted, prevented and treated.	Every 2 years	Student survey
BEHAVIORAL		
1. Percentage of students who report sleeping under a mosquito net the night before.	Every 2 years	Student survey

2. Percentage of students who report seeking treatment promptly (within 24 hours of onset of symptoms) the last time they had fever.	Every 2 years	Student survey
IMPACT		
1. Percentage of children infected with malaria parasitaemia.	Every 4 to 5 years	Survey of school children
2. Percentage of children with anemia.	Every 4 to 5 years	Survey of school children

Sources and Further Information

Brooker, S. (2009). *Malaria Control in Schools: A toolkit on effective education sector responses to malaria in Africa.* PCD, LSHTM, KEMRI-Wellcome Trust and the World Bank. Kenya, KEMRI-Wellcome Trust. http://www.schoolsandhealth.org/Documents/Malaria%20Toolkit%20for%20Schools%202009.pdf

Brooker, S., Clarke, S., Snow, R.W. and Bundy, D.A.P. (2008). Malaria in African schoolchildren: Options for control. *Transactions of the Royal Society of Tropical Medicine and Hygiene,* 102(4-4): 304-305. http://researchonline.lshtm.ac.uk/8136/1/main.pdf

Roschnik, N. (2013). *Malaria control in schools in Mali: Results from a cluster randomized control trial in Sikasso Region.* Mali. Save the Children. http://www.schoolsandhealth.org/Documents/Malaria%20control%20in%20schools%20in%20Mali%20(English).pdf

World Health Organization (WHO). (2007). *WHO Information Series on School Health. Document thirteen. Malaria prevention and control: An important responsibility of a health-promoting school.* Geneva: WHO. http://www.who.int/chp/topics/healthpromotion/MALARIA_FINAL.pdf

Reviewed by Sian Clarke and Simon Brooker (London School of Hygiene and Tropical Medicine); Andy Tembon and Donald Bundy (World Bank); and Natalie Roschnik (Save the Children).

Thematic Indicator 6: Oral Health

Rationale

The most common chronic diseases in children worldwide are dental caries (tooth decay) and gum disease (gingivitis). Across the world, 60% to 90% of schoolchildren are affected by dental caries and nearly all children present gingival bleeding as the major symptom of gum disease. Most dental caries in children remains untreated and may have general health consequences. Diseases of teeth and mouth affect children's ability to eat and chew, the food they choose, their appearance and the way they communicate. Pain from teeth and the mouth can compromise children's attention and their ability to work at school, thereby hampering, not only their play and development, but also denying them the full benefit of schooling. Other oral conditions commonly seen are trauma of teeth and, in children infected with HIV, specific oral lesions.

The essential risk factors involved with mouth disease among children and young individuals relate to an unhealthy diet, in particular high and frequent consumption of sugars, poor oral hygiene, use of tobacco and alcohol. Sugars may be consumed in the form of sweets and sugary soft drinks, meanwhile several regular food items are also rich in sugars. Contributing factors to mouth diseases relate to suboptimal levels of fluoride in drinking water, lack of school-based fluoride programs, and limited availability, if any, of fluoride toothpaste for oral hygiene. Major barriers to school-based oral health promotion are lack of sanitary facilities and clean water, lack of experience in promoting health and prevention of mouth diseases among schoolteachers, lack of health education tools, and isolation of oral health from the school curricula. In addition, lack of school health services may limit the control of mouth diseases of schoolchildren. Lack of referral of children for dental care is another factor which may limit prevention and treatment of mouth diseases. Experiences across the world have shown that formulations of oral health policies at national- and school-levels are important to the development of well-functioning school oral health programs. In a number of countries school oral health is organized according to the WHO Health Promoting Schools concept.

Strategies

It is essential that promotion of oral health be incorporated into other school health activities. School health promotion which includes intervention towards healthy diet and nutrition, improving personal hygiene, controlling tobacco use and alcohol consumption, and preventing accidents may prevent disease of teeth and mouth among schoolchildren. There are, however, specific oral health measures that need to be addressed, mainly the adequate exposure to fluoride for the prevention of dental caries, the relief of pain from teeth and the mouth and, where possible, appropriate prevention-focused dental care either at school or at community-based dentists.

A number of thematic indicators provided in other sections (such as Thematic Indicator 2: Food and Nutrition; Thematic Indicator 10: Injury Prevention; Thematic Indicator 11: HIV and AIDS; and Thematic Indicator 13: Substance Abuse) are also pertinent to oral health and are therefore, not repeated here. This section rather *complements them with supplementary oral health indicators*, both at the outcome and process-level.

Oral Health Indicators Table

Indicators	Data Collection Frequency	Data Collection Methods
FRESH PILLARS		
EQUITABLE SCHOOL HEALTH POLICIES		
1. Existence of a national policy recommending strategies to address oral health problems in schools.	Every 3 years	Policy review
2. Percentage of schools with a curriculum incorporating oral health.	Every 3 years	National- and school-levels
SAFE LEARNING ENVIRONMENT		
1. Percentage of schools where the provision of foods and drinks high in sugars is banned.	Every 3 years	School survey – questionnaire
2. Percentage of schools providing healthy drinks and fruits.	Every 3 years	School survey – questionnaire
3. Percentage of schools with appropriate sanitary facilities for personal and oral hygiene.	Every 3 years	School survey – questionnaire
SKILLS-BASED HEALTH EDUCATION		
1. Percentage of schools having established programs for daily tooth brushing with fluoridated toothpaste.	Every 3 years	School survey – questionnaire
2. Percentage of schools providing oral health education focusing on healthy lifestyles, appropriate diet, and nutrition.	Every 3 to 5 years	School survey questionnaire/Global SHPPS
SCHOOL-BASED HEALTH AND NUTRITION SERVICES		
1. Percentage of schools providing oral health protection activities, such as fluoride administration and fissure sealing.	Every 3 years	School survey – questionnaire
2. Percentage of schools having established oral health care services, or systems for screening/referral for dental care.	Every 3 years	School survey – questionnaire/ Global SHPPS
OUTCOMES		
LEARNING		
1. Percentage of students who know key ways to prevent oral disease.	Every 3 years	School survey – questionnaire
BEHAVIORAL		
1. Percentage of students who undertake daily tooth brushing with fluoridated toothpaste while at school.	Every 3 years	School survey – questionnaire
2. Percentage of students not consuming sugary items while at school.	Every 3 years	School survey – questionnaire

IMPACT		
1. Percentage of students at a certain age with no dental caries.	Every 5 years	School survey _ clinical examination / WHO Oral Health Surveys
2. Percentage of students at a certain age with no bleeding gums (gingivitis).	Every 5 years	School survey _ clinical examination / WHO Oral Health Surveys
3. Percentage of students with experience of pain/discomfort from the teeth or mouth within the past year.	Every 5 years	School survey _ clinical examination / WHO Oral Health Surveys
4. Number of school days missed in the past year due to oral health problems.	Every 5 years	School survey – questionnaire

Sources and Further Information

Benzian, H. and Monse B. (2011). *Promoting Oral Health.* In: Bundy D.A.P., Rethinking school health: A key component of Education for All. Chapter 3, page 111. Washington D.C., World Bank Publications, 2011. http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2011/03/09/000356161_20110309020432/Rendered/PDF/600390PUB0ID171Health09780821379073.pdf

Jürgensen, N. and Petersen, P.E. (2012). Global survey on oral health through schools. Geneva. WHO.

Kwan, S.Y.L., Petersen, P.E., Pine, C.M. and Borutta, A. (2005). Health-promoting schools: An opportunity for oral health promotion. *Bulletin of the World Health Organization*, 83(9): 677-685.

Petersen, P.E. (2003). The World Oral Health Report 2003: Continuous improvement of oral health in the 21st century – the approach of the WHO Global Oral Health Programme. *Community Dental and Oral Epidemiology,* 31(1): 3-24.

Petersen, P.E. and Torres, A,M. (1999). Preventive oral health care and health promotion provided for children and adolescents by the Municipal Dental Health Service in Denmark. *International Journal of Paediatric Dentistry*, 9(2): 81-91.

World Health Organization (WHO). (2003a). *WHO Information Series on School Health. Document eleven. Oral health promotion: An essential element of a health-promoting school.* WHO, Geneva. http://www.who.int/oral_health/media/en/orh_school_doc11.pdf

World Health Organization (WHO). (2003b). *Diet, nutrition and the prevention of chronic diseases. World Technical Report Series 916.* Geneva, WHO. http://whqlibdoc.who.int/trs/who_trs_916.pdf

World Health Organization (WHO). (1997). *Oral Health Surveys: Basic methods. 4th ed.* Geneva, WHO.

Reviewed by Habib Benzian (Fit for School International); Bella Monse (Deutsche Gesellschaft fuer Internationale Zusammenarbeit); and Poul Erik Petersen (WHO).

Thematic Indicator 7: Eye Health

Rationale

Around the world, an estimated 19 million children are visually impaired and are officially classified as either blind or with low vision. Of these, 12 million children are visually impaired due to refractive errors, which is a condition that could be easily diagnosed and corrected with a pair of spectacles. In addition to refractive errors, primary school-age children may be affected by allergic eye disease, conjunctival infection, including trachoma, and eye injuries. Some children may have more serious conditions which require surgery, such as cataract. Other children may have conditions associated with permanent vision loss i.e. they have low vision (WHO, 1993) and require devices such as magnifiers, or better lighting to enable them to read. School health programs can play a role in prevention, detection and/or referral for treatment for these conditions, and supporting children with low vision.

In addition, schoolchildren can play a role in improving the eye health of the community and in their families by taking health messages and ideas back home about conditions that may affect preschool age children's eye health such as vitamin A deficiency and infectious eye diseases such as trachoma (Gilbert, 2011) where the condition is endemic.

Strategies

School eye programs need to be comprehensive, integrated within school health initiatives, monitored and evaluated, and cost-effective. Components of comprehensive school eye health programs include: education about eye conditions and eye health; primary eye care for children-including identification of children in need of spectacles; eye care for teachers; a health promoting school environment; a child-to-child approach; and links to control programs for local endemic diseases (Gilbert, n.d.).

Strong links with special needs education services are also required to ensure that children who are identified as blind, and thus, cannot learn using visual methods, receive more specialized support needed to realize their rights to education, preferably within an inclusive local environment.

Eye Health Indicators Table

Indicators	Data Collection Frequency	Data Collection Methods
FRESH PILLARS		
EQUITABLE SCHOOL HEALTH POLICIES		
1. Existence of a national policy recommending strategies to address eye and vision problems in schools.	Every 2 years	Policy review
2. Percentage of schools implementing a policy on promotion of eye health	Every 2 years	Health and school education authorities
SAFE LEARNING ENVIRONMENT		
1. Percentage of schools where clean water for face and hand washing is available, to reduce trachoma transmission.	Every 2 years	School survey/ observation
2. Percentage of schools where special seating is arranged (e.g. in front of the class or by a window for better light) for children with low vision.	Every 2 years	School survey/ observation
SKILLS-BASED HEALTH EDUCATION		
1. Percentage of schools that include eye health education in their curriculum.	Every 2 years	School survey
2. Percentage of schools providing eye health education.	Every 2 years	School survey
SCHOOL-BASED HEALTH AND NUTRITION SERVICES		
1. Percentage of schools where most of the students are screened at school for vision problems.	Every 3 to 5 years	Global SHPPS
2. Percentage of schools where referrals for vision problems are provided at school.	Every 3 to 5 years	Global SHPPS
OUTCOMES		
LEARNING		
1. Percentage of students who know key ways to prevent eye diseases including locally endemic infectious diseases.	Every 2 years	Student survey
BEHAVIORAL		
1. Percentage of students who have participated in an event to promote eye health to family and community members.	Every 2 years	Student survey
2. Percentage of students prescribed spectacles or low vision devices who use them in class.	Every 2 years	School survey / observation
3. Enrolment, attendance and completion rates of children in school who have been diagnosed with blindness or low vision and who are receiving appropriate interventions.	Every 2 years	School and medical records

IMPACT		
1. Percentage of students with untreated vision problems.	Every 2 years	School records / medical records
2. Performance (exams, etc.) of students who have been diagnosed with blindness or low vision and received appropriate interventions.	Every 2 years	School records
3. Rates of vitamin A deficiency and active trachoma (grade TF) in the community.	Every 5 years	Ministry of Health and neglected tropical diseases / trachoma control programs

Sources and Further Information

Gilbert, C. (2011). IAPB Briefing Paper: *Integrating eye health into school health programs.* London, IAPB. http://www.iapb.org/sites/iapb.org/files/Eye%20health%20%26%20Schools%20IAPB%20BP.pdf

Gilbert, C. (n.d.). Comprehensive school eye health programs. (Power point presentation.) London, IAPB. http://www.iapb.org/assembly/course-19-eye-health-children

International Agency for the Prevention of Blindness (IAPB). (n.d.). *Course 19: Eye Health for Children.* London, IAPB. http://www.iapb.org/assembly/course-19-eye-health-children

World Health Organization (WHO). (2012). *Visual impairment and blindness.* Fact Sheet No 282. Geneva, WHO. http://www.who.int/mediacentre/factsheets/fs282/en/index.html

World Health Organization (WHO). (2006). *A guide: Trachoma prevention through school health curriculum development. Alleviating human suffering through education and empowerment.* Geneva, WHO. http://www.who.int/blindness/CHF%20GUIDE%20FINAL%20EN.pdf

World Health Organization (WHO). (1993). *Management of low vision in children*. Report of a WHO Consultation. Bangkok 23-24 July 1992. Geneva, WHO. http://whqlibdoc.who.int/hq/1993/WHO_PBL_93.27.pdf

Reviewed by Peter Ackland (International Agency for the Prevention of Blindness).

Thematic Indicator 8: Ear and Hearing

Rationale

Recent WHO estimates reveal that 32 million children across the world live with disabling hearing loss. One of the main impacts of hearing loss is on a child's ability to communicate with others. Spoken language development is often delayed in children with deafness. Hearing loss and ear diseases such as otitis media can have significantly adverse effects on the academic performance of children (WHO, 2012). Half of all cases of hearing loss and deafness are avoidable through primary prevention, and many can be treated through early diagnosis and suitable management (WHO, 2012).

Strategies

Prevention strategies which could be offered through schools include immunizing school-age children against childhood diseases such as measles, meningitis, rubella and mumps, and immunizing adolescent girls against rubella (WHO, 2012). In addition, screening of young children for early detection of ear diseases and hearing loss should occur upon school entry and could be incorporated into a school health screening program. Children that screened positively can be targeted for simple classroom measures to improve their progress in schools and to raise the level of awareness in the school and community (WHO, 2006).

Strong links with special needs education services are also beneficial to ensure that children who are identified as hearing impaired receive specialized support to fully realize their rights to education, preferably within an inclusive local environment.

Ear and Hearing Indicators Table

Indicators	Data Collection Frequency	Data Collection Methods
FRESH PILLARS		
EQUITABLE SCHOOL HEALTH POLICIES		
1. Existence of a national policy recommending strategies to address ear and hearing problems in schools.	Every 2 years	Policy review
SAFE LEARNING ENVIRONMENT		
1. Existence of special arrangements (e.g. seating in front of the class or suitable lighting, etc.) for children with hearing problems.	Every 2 years	School survey/ observation
SKILLS-BASED HEALTH EDUCATION		
1. Percentage of schools that include ear and hearing care education in their curriculum.	Every 2 years	School survey

SCHOOL-BASED HEALTH AND NUTRITION SERVICES		
1. Percentage of schools carrying out ear and hearing screening.	Every 2 years	School survey
2. Percentage of schools with an effective strategy for addressing ear and hearing problems (e.g. referral to a health center for further tests and follow-up).	Every 2 years	School survey
3. Number of children referred for ear and hearing problems.	Annually	School survey
OUTCOMES		
LEARNING		
1. Percentage of students who know key ways to prevent and care for hearing loss.	Every 2 years	Student survey
BEHAVIORAL		
1. Percentage of students who have participated in an event to promote healthy ear and hearing care habits in the family and community.	Every 2 years	Student survey
2. Percentage of teachers who have participated in a training program or event regarding ear and hearing care.	Every 2 years	School records
3. Number of children 'treated' for ear and hearing problems.	Every 2 years	Medical records
IMPACT		
1. Percentage of children with hearing loss.	Every 2 years	School records / medical records
2. Percentage of children with untreated ear and hearing problems.	Every 2 years	School records / medical records

Sources and Further Information

Save the Children. (2008). *Vision and hearing screening in schools. Successes and lessons from Mangochi District, Malawi.* Washington D.C., Save the Children.
http://www.schoolsandhealth.org/documents/vision_and_hearing_screening_in_schools-lessons_learned_from_malawi.pdf

World Health Organization (WHO). (2013a). *Prevention of blindness and deafness. Primary ear and hearing care.*
http://www.who.int/pbd/deafness/activities/hearing_care/en/index.html

World Health Organization (WHO). (2013b). *Deafness and hearing loss*. Fact sheet No. 300. Geneva: WHO.
http://www.who.int/mediacentre/factsheets/fs300/en/

World Health Organization (WHO). (2012). WHO *global estimates on prevalence of hearing loss*. Geneva: WHO.
http://www.who.int/pbd/deafness/WHO_GE_HL.pdf

World Health Organization (WHO). (2006). *Primary ear and hearing care training resource. Advanced-level.* Geneva, WHO.
http://www.who.int/pbd/deafness/activities/hearing_care/advanced.pdf

Reviewed by Shelly Chadha (WHO).

Thematic Indicator 9: Immunization

Rationale

Immunization is a proven intervention for controlling and eliminating life-threatening infectious diseases and is estimated to prevent over 2.5 million deaths each year. Immunization also reduces long-term disability among children due to certain vaccine-preventable illnesses, thereby reducing clinic visits as well as hospitalization (WHO, UNICEF and World Bank, 2009). Immunization is one of the most cost-effective health investments, with fixed-site, outreach, mobile and campaign style strategies that make it accessible to even the most hard-to-reach and vulnerable populations. Since the Millennium Development Goals, school enrolment rates have been increasing, making school immunization a promising opportunity to reach a large number of children.

Strategies

Immunization has clearly defined target groups spanning the life-cycle from infants and children, to adolescents and adults. Traditional immunization programs have included vaccines against diphtheria, tetanus, pertussis, measles, polio, and tuberculosis. Over the past decade, these programs have begun adding vaccines against hepatitis B, influenza, mumps, pneumococcal disease, rotavirus, and rubella as well (WHO, UNICEF and World Bank, 2009). Enrolment at school provides the opportunity to screen children and adolescents for vaccination status and the location itself can serve as a delivery site for providing booster doses and other recommended childhood and adolescent vaccinations (for example, diphtheria, tetanus, pertussis [DTP] boosters, tetanus toxoid, measles, rubella, human papillomavirus, influenza, etc.).

Immunization also serves as an opportunity to deliver other life-saving measures, such as vitamin A supplements to prevent malnutrition, ITNs for protection against malaria, and deworming drugs for intestinal worms.

Immunization Indicators Table

Indicators	Data Collection Frequency	Data Collection Methods
FRESH PILLARS		
EQUITABLE SCHOOL HEALTH POLICIES		
1. Existence of a national-level policy recommending school entry screening for vaccination status.	Every 2 years	Policy review
2. Percentage of schools that require students to be in compliance with the national immunization schedule for school enrolment.	Every 3 to 5 years	Global SHPPS
SAFE LEARNING ENVIRONMENT		
SKILLS-BASED HEALTH EDUCATION		
1. Percentage of students reporting they received at least one health education session per academic year focused on vaccine-preventable diseases and immunization.	Every 2 years	School survey
2. Percentage of schools that provide information to students and families about the value and importance of receiving routine immunizations to prevent infectious disease.	Every 3 to 5 years	Global SHPPS
SCHOOL-BASED HEALTH AND NUTRITION SERVICES		
1. Percentage of schools implementing screening of vaccination status of students at enrolment.	Every 2 years	School survey
2. Percentage of schools providing booster doses and other recommended childhood vaccinations.	Every 2 years	School survey
ALTERNATIVE INDICATOR (from global surveys)		
2a). Percentage of schools providing routine immunizations at school.	Every 3 to 5 years	Global SHPPS
OUTCOMES		
LEARNING		
BEHAVIORAL		
1. Percentage of school-age children/ adolescents who received the nationally recommended vaccinations planned to be given at school.	Annually	Administrative records/data
IMPACT		
1. Age-specific (e.g. school-age) incidence rate of measles and diphtheria (or the number of outbreaks of measles and diphtheria in schools).	Annually	Disease surveillance data

Sources and Further Information

World Health Organization (WHO). (2012). WHO recommendations for routine immunization – summary tables. Geneva, WHO. http://www.who.int/immunization/policy/immunization_tables/en/index.html

World Health Organization (WHO). (2011). *Immunization service delivery: School-based immunization.* Geneva, WHO. http://www.who.int/immunization_delivery/systems_policy/school-based-immunization/en/

World Health Organization (WHO), UNICEF and World Bank. (2009). *State of the world's vaccines and immunization. Third edition.* Geneva, WHO. http://www.unicef.org/immunization/files/SOWVI_full_report_english_LR1.pdf

Reviewed by Tracey Goodman and Leanne Riley (WHO).

Thematic Indicator 10: Injury Prevention

Rationale

Child injuries are a growing global problem. Each year close to 400,000 children die from unintentional injuries alone, such as traffic injuries, drowning, poisonings, burns and falls. Unintentional injuries are the leading cause of death for children aged 10 to 19 years in low-income and middle-income countries and children aged 5 to 19 years in high-income countries. In addition, millions of others suffer from non-fatal injuries which often lead to disability and other lifelong consequences. The young age of schoolchildren, the stage of their development and the manner with which they interact with the world make children especially susceptible to injuries (WHO and UNICEF, 2008). As outlined in the Convention of the Rights of the Child (OHCHR, 2013), ratified by almost all governments, countries have the responsibility and obligation to protect and ensure safety in the care and protection of children.

Strategies

There are proven ways to reduce the likelihood and severity of each area of unintentional child injury. Basic principles that underlie most successful child injury prevention programs in schools include: environmental modification of playground and other indoor and outdoor facilities; promotion of safety devices (e.g. helmets and seat-belts); development and implementation of standards for school safety (e.g. zebra crossing and appropriate type and depth of playground surface material); and health education and life skills development (e.g. first aid and swimming lessons). Standardization of safety education curricula increases the likelihood that all children will receive similar information. Adoption of standardized safety curricula into national policy will increase the likelihood that the curricula will be used by all schools. Child injury prevention should be shared between many sectors and integrated into a comprehensive approach to child health and development (WHO and UNICEF, 2008).

Injury Prevention Indicators Table

Indicators	Data Collection Frequency	Data Collection Methods
FRESH PILLARS		
EQUITABLE SCHOOL HEALTH POLICIES		
1. Existence of a comprehensive national child health strategy or a national injury prevention strategy that includes prevention of injuries at school.	Every 3 to 5 years	Policy review
2. Percentage of schools with a system to routinely monitor implementation of school-based injury prevention policy.	Every 3 to 5 years	Global SHPPS
SAFE LEARNING ENVIRONMENT		
1. Existence of a local road safety strategy, including a focus on children.	Every 3 to 5 years	Key informant interview
2. Percentage of schools that had playground or athletic facilities and equipment inspected and provided with appropriate maintenance during the past 12 months.	Every 3 to 5 years	Global SHPPS

3. Percentage of schools that had school structures and buildings inspected for safety issues and hazards (such as broken windows, water leaks or outdoor landscape hazards) and provided with appropriate maintenance during the past 12 months.	Every 3 to 5 years	Global SHPPS
4. Percentage of schools that had school grounds inspected for safety issues and hazards (such as overgrown landscaping, refuse, or garbage) and provided with appropriate maintenance during the past 12 months.	Every 3 to 5 years	Global SHPPS
5. Percentage of schools with trained teacher(s) to monitor and administer first aid and basic safety.	Every 3 to 5 years	Global SHPPS
SKILLS-BASED HEALTH EDUCATION		
1. Percentage of schools who have curricula on first aid.	Every 3 to 5 years	Global SHPPS
2. Percentage of students taught about injury prevention and safety, for example, road safety.	Every 3 to 5 years	Global SHPPS
3. Percentage of students exposed to school curricula recommending how to prevent motor vehicle accidents.	Every 3 to 5 years	GSHS
4. Percentage of students exposed to school curricula recommending how to avoid or prevent other types of accidents, such as fires, drowning or poisoning.	Every 3 to 5 years	GSHS
SCHOOL-BASED HEALTH AND NUTRITION SERVICES		
OUTCOMES		
LEARNING		
BEHAVIORAL		
1. Percentage of students wearing a seat belt when seated in a car or other motor vehicle driven by someone.	Every 3 to 5 years	GSHS
2. Percentage of students wearing a seat belt when driving a car or other motor vehicle.	Every 3 to 5 years	GSHS
3. Percentage of students wearing a helmet when riding a bicycle.	Every 3 to 5 years	GSHS
IMPACT		
1. Percentage of students reporting they had fall-related injuries in the past 12 months.	Every 3 to 5 years	GSHS
2. Percentage of students reporting they had motor vehicle-related injuries in the past 12 months.	Every 3 to 5 years	GSHS
3. Percentage of students reporting they had fire-related injuries in the past 12 months.	Every 3 to 5 years	GSHS

Sources and Further Information

UNICEF and World Health Organization (WHO). (2008). *Have fun, be safe! Companion to the world report on child injury prevention.* New York, UNICEF. http://www.unicef.org/publications/files/Have_Fun_Be_Safe.pdf

United Nations Office of the High Commissioner for Human Rights (OHCHR). (2013). Convention on the rights of the child. Geneva, OHCHR. http://www.ohchr.org/EN/ProfessionalInterest/Pages/CRC.aspx

World Health Organization (WHO). (2013). *Global school-based student health survey (GSHS)*. Chronic Diseases and Health Promotion. Geneva, WHO. http://www.who.int/chp/gshs/en/

World Health Organization (WHO) and UNICEF. (2008). *World report on child injury prevention.* Edited by Peden, M., Oyegbite, K., Ozanne-Smith, J., Hyder, A.A., Branche, C., Fazlur Rahman, A.K.M., Rivara F. and Bartolomeos, K. Geneva, WHO. http://whqlibdoc.who.int/publications/2008/9789241563574_eng.pdf

Reviewed by Kidist Bartolomeos and Leanne Riley (WHO).

Thematic Indicator 11: HIV and AIDS

Rationale

There are 2.5 million children under age 15 and 5 million young people aged 15 to 24 living with HIV. Only 28% of children needing antiretroviral medication received it. In 2009, an estimated 890,000 new HIV infections occurred among young people. Some regions have higher HIV burden than others. In Southern Africa, nine countries have at least 1 in 20 young people living with HIV. Globally, more young females are infected with HIV than young males, and in many countries women face their greatest risk of infection before age 25 (UNICEF, 2010).

Over the past decade the education sector has played an increasingly important role in the multisectoral response to HIV and AIDS. The priority placed on the education sector's response is based on the evidence that education contributes to knowledge and personal skills essential for HIV prevention and that it protects individuals, communities and nations from the impact of AIDS. However, as resources for multisectoral responses to HIV become ever more limited, it becomes crucial that the education sector is able to show evidence of the impact of its responses to the HIV epidemic.

Strategies

School-based HIV and AIDS education can reach many children with factual HIV information and equip them with the knowledge and skills to protect themselves before becoming sexually active. When young people learn about sex and HIV before their sexual debut, their risk of contracting HIV is reduced. School-based sex and HIV education have been shown to reduce sexual risk behaviors, increase knowledge, and improve attitudes toward changing HIV-risk behaviors among students (IATT, n.d.).

Life skills education is an effective methodology which uses participatory exercises to teach behaviors to young people that help them deal with the challenges and demands of everyday life. It can include decision making and problem solving skills, creative and critical thinking, self-awareness, communication and interpersonal relations. It can also teach young people how to cope with their emotions and causes of stress. When adapted specifically for HIV education in schools, a life skills-based approach helps young people understand and assess the individual, social and environmental factors that raise and lower the risk of HIV transmission. When properly implemented, it can have a positive effect on behaviors, including delay in sexual debut and reduction in number of sexual partners.

Schools can play a supportive role in treatment and care for young people living with or affected by HIV. They can facilitate HIV treatment education and access to preventive services, such as voluntary counseling and testing. Additionally, they can provide or refer students to psychosocial support services (IATT, n.d.). For girls, education itself contributes to many factors associated with decreased risk of HIV infection, such as delayed marriage, use of family planning, and economic independence (IATT, n.d.).

HIV and AIDS Indicators Table

Indicators	Data Collection Frequency	Data Collection Methods
FRESH PILLARS		
EQUITABLE SCHOOL HEALTH POLICIES		
1. National Commitments and Policy Instruments (NCPI)	Every 2 years	Questionnaire administered to government officials and representatives from civil society. (Global AIDS Response Progress [GARP] indicator #7.1/formerly United Nations General Assembly Special Session [UNGASS] indicator #2).
SAFE LEARNING ENVIRONMENT		
SKILLS-BASED HEALTH EDUCATION		
1. Percentage of schools that provided life skills-based HIV and sexuality education in the previous academic year.	Every 2 years	EMIS annual school census or school-based survey targeting school principals. (Based on former UNGASS indicator #11). / Global SHPPS
2. Percentage of schools with teachers who received training and also taught lessons in life skills-based HIV and sexuality education in the previous academic year.	Every 2 years	EMIS annual school census targeting school principals
3. Percentage of schools that provided an orientation process for parents or guardians of students regarding life skills-based HIV and sexuality education programs in schools in the previous academic year.	Every 2 years	EMIS annual school census
SCHOOL-BASED HEALTH AND NUTRITION SERVICES		
1. Percentage of schools with HIV counseling, testing or referrals provided at school.	Every 3 to 5 years	Global SHPPS
2. Percentage of orphaned and vulnerable children aged 5 to17 years, who received emotional or psychological support through schools.	Every 2 years	EMIS annual school census targeting principals. (Recommended for countries with generalized HIV epidemics).

3. Percentage of orphaned and vulnerable children, aged 5 to 17 years, who receive bursary support, including free exemptions, through schools.	Every 2 years	EMIS annual school census. (Recommended for countries with generalized HIV epidemics).
4. Percentage of educational institutions that implement an HIV Workplace Program.	Every 2 years	School- and college-based survey or EMIS annual school/college census. (Recommended for countries with generalized HIV epidemics).
5. Percentage of orphaned and vulnerable children, aged 5 to 17 years, who receive social support, excluding bursary support, through schools.	Every 2 years	EMIS annual school census. (Recommended for countries with generalized HIV epidemics).
OUTCOMES		
LEARNING		
1. Percentage of students aged 10 to 24 years, who demonstrate desired knowledge-levels and reject major misconceptions about HIV transmission.	Every 2 years	Household survey, in- and out-of-school youth. Possibility of using student survey in schools. (from revised Inter-Agency Task Team [IATT] indicator)
BEHAVIORAL		
1. Percentage of young people aged 15 to 24 years, who have had sexual intercourse before the age of 15 years.	Every 4 to 5 years	Population-based surveys, DHS or MICS. (GARP indicator 1.2/former UNGASS indicator #15)
2. Percentage of women and men, aged 15 to 49 years, who have had more than one partner in the past 12 months and who used a condom during their last sexual intercourse.	Every 4 to 5 years	Population-based surveys, DHS or MICS. (from revised IATT indicator, GARP indicator 1.4/former UNGASS indicator #17)

IMPACT		
1. Percentage of students who permanently left school due to HIV-related illness or death in the previous academic year.	Annually	EMIS annual school census questionnaire. (Recommended for countries with generalized HIV epidemics).
2. Current school attendance among orphans and non-orphans aged 10 to 14 years.	Preferred: every 2 years Minimum: Every 4 to 5 years	Population-based surveys (DHS, AIDS Indicator Survey, MICS or other representative survey). (Recommended for countries with generalized HIV epidemics). (GARP indicator 7.3/former UNGASS indicator #12)
3. Teacher attrition rate in the previous academic year due to HIV and AIDS.	Every 2 years	EMIS annual school census questionnaire

Sources and Further Information

The indicators are based on the ones field-tested by UNESCO and endorsed by the Joint United Nations Programme on HIV/AIDS (UNAIDS) IATT on Education and the GARP Reporting 2012.

For more information:

UNAIDS. (2011). *Global AIDS response progress (GARP) reporting 2012. Guidelines: Construction of core indicators for monitoring the 2011 Political Declaration on HIV/AIDS.* Geneva, UNAIDS. http://www.unaids.org/en/media/unaids/contentassets/documents/document/2011/JC2215_Global_AIDS_Response_Progress_Reporting_en.pdf

UNESCO. (2013). *Global monitoring and evaluation framework for comprehensive education responses to HIV and AIDS: Guidelines for the construction of core indicators.* Paris, UNESCO.

Inter-Agency Task Team [IATT] on HIV and Young People. (n.d.) *Guidance brief: HIV interventions for young people in the education sector.* New York: UNFPA. http://www.unfpa.org/hiv/iatt/docs/education.pdf

UNICEF. (2010). *Children and AIDS: Fifth stocktaking report, 2010.* New York, UNICEF. http://www.unicef.org/aids/files/5thStocktakingKeyFacts_Final_letter(1).pdf

World Health Organization (WHO). (1999). *WHO Information Series on School Health. Document six. Preventing HIV/AIDS/STI and related discrimination: An important responsibility of health-promoting schools.* Geneva, WHO. http://www.who.int/school_youth_health/media/en/90.pdf

Reviewed by Clemens Benedikt and Asha Mohamud (United Nations Population Fund [UNFPA]); and Yong Feng Liu (UNESCO).

Thematic Indicator 12: Sexual and Reproductive Health

Rationale

Approximately 1 million girls aged 10 to 14 years and 16 million girls aged 15 to 19 years give birth every year, with the majority of these early pregnancies occurring in developing countries (WHO, 2013). Since adolescence is a critical time of development with striking physical and emotional changes that affect young people's health, adolescents need reliable information as they deal with these new experiences and developments. Around the world, millions of young people are sexually active, though not always by their own choice. The resulting too-early sexual relationships and pregnancies can have profound effects on young people's health and negatively affect their social development, educational pursuits and job opportunities (WHO, 2003).

Strategies

Schools can be a strategic entry point for addressing sexual and reproductive health since they reach a large number of the world's children during a critical developmental period. As research has shown, reproductive health education does not lead to earlier or increased sexual activity among young people and can in fact reduce sexual risk behavior. Sexual and reproductive health interventions can be included within the FRESH pillars as schools create supportive school policies that provide an essential framework: skills-based health education that includes age-appropriate content and participatory learning methods; a healthy physical and psychosocial school environment; and school-based health and nutrition services that provide adolescent-friendly reproductive health services and mental health promotion, counseling and social support (WHO, 2003).

Schools should support decisions concerning reproduction to be made free from discrimination, coercion and violence, and discourage early marriages and gender-based violence (such as rape, coercive sex, abuse, and exploitation). Schools can also encourage and support parents and families to communicate with their children about sexual and reproductive health and facilitate change in thinking about harmful traditional practices and gender discrimination.

Sexual and Reproductive Health Indicators Table

Indicators	Data Collection Frequency	Data Collection Methods
FRESH PILLARS		
EQUITABLE SCHOOL HEALTH POLICIES		
1. National policies that prohibit discrimination on basis of gender identity, sexual orientation or physical and intellectual disability.	Every 2 years	Policy review
2. National policies that prohibit bullying, sexual harassment and sexual violence.	Every 2 years	Policy review
3. National policy mandating inclusion of evidence-based comprehensive sexuality education in the school curriculum and linkage to services.	Every 2 years	Policy review
4. Percentage of educational institutions that have rules and guidelines for staff and students related to physical safety, stigma and discrimination and sexual harassment and abuse that have been communicated to relevant stakeholders.	Every 2 years	EMIS annual school/college/ institution census questionnaire targeting principals and heads of educational institutions.
5. Percentage of schools that always allow pregnant students to attend school.	Every 3 to 5 years	Global SHPPS
6. Percentage of schools reporting number of female learners dropping out of school due to pregnancy.	Annually	EMIS
SAFE LEARNING ENVIRONMENT		
1. Percentage of female students who have access to sanitary products during menstruation.	Every 2 years	School survey
2. Percentage of schools with separate toilets or latrines for boys to use.	Every 3 to 5 years	Global SHPPS
3. Percentage of schools with separate toilets or latrines for girls to use.	Every 3 to 5 years	Global SHPPS
SKILLS-BASED HEALTH EDUCATION		
1. Percentage of schools that provided education on sexual and reproductive health.	Every 3 to 5 years	Global SHPPS
2. Percentage of students who have received at least 45 minutes of comprehensive sexuality education per week in the last year.	Every 2 years	School survey
3. Percentage of students who have talked with a parent(s) or a trusted adult regarding sexual and reproductive health matters in the last year.	Every 2 years	School survey
4. Percentage of teachers who received at least 8 hours of training in evidence-based comprehensive sexuality education.	Annually	Training records and EMIS

SCHOOL-BASED HEALTH AND NUTRITION SERVICES		
1. Percentage of schools who have access to school-based or school-linked sexual and reproductive health counseling and services.	Annually	EMIS
2. Percentage of schools that provide testing, treatment, or referrals for sexually transmitted infections.	Every 3 to 5 years	Global SHPPS
3. Percentage of schools that identify or refer students for physical, sexual, or emotional abuse.	Every 3 to 5 years	Global SHPPS
OUTCOMES		
LEARNING		
1. Percentage of students who know how to tell someone they do not want to have sexual intercourse with them.	Every 3 to 5 years	GSHS core-expanded questions
2. Percentage of students who know how to tell someone they do not want to have sexual intercourse with them unless a condom is used.	Every 3 to 5 years	GSHS core-expanded questions
3. Percentage of learners who disapprove of (have negative attitudes towards) rape, incest, coercive sex, sexual harassment, stigma and discrimination, marriage before age 18, Female Genital Mutilation (Attitude Index).	Every 2 years	Student survey
BEHAVIORAL		
1. Percentage of students who used a condom the last time they had intercourse.	Every 3 to 5 years	GSHS
2. Percentage of students who used any other method of birth control, such as withdrawal, rhythm, birth control pills, or any other method to prevent pregnancy the last time they had intercourse.	Every 3 to 5 years	GSHS
IMPACT		
1. Percentage of students aged 15 to19 years who unintentionally became pregnant or impregnated someone.	Every 4 to 5 years	Population-based surveys (DHS or MICS)

Sources and Further Information

Introduction adapted from:

World Health Organization (WHO). (2003). *WHO Information Series on School Health. Document eight. Family life, reproductive health, and population education: Key elements of a health-promoting school.* Geneva, WHO. http://www.who.int/school_youth_health/media/en/family_life.pdf

Additional information:

World Health Organization (WHO). (2013). *Sexual and reproductive health. Preventing early pregnancy through appropriate legal, social and economic measures.* Geneva, WHO. http://www.who.int/reproductivehealth/topics/adolescence/laws/en/index.html

Reviewed by Clemens Benedikt and Asha Mohamud (UNFPA); and Colleen Keilty, Suzanne Field and Elyse Ruest-Archambault (Right to Play).

Thematic Indicator 13: Substance Abuse

Rationale

Substance abuse indicates the use of psychoactive substances to a harmful or hazardous extent (WHO, 2013a). These substances used by school-age children include tobacco, alcohol, illicit (illegal or unlawful) drugs, prescription drugs and over-the-counter medicines. The overuse of alcohol causes 2.5 million deaths per year, and causes 9% of all deaths of young people aged 15 to 29 years. Globally, an estimated 15.3 million people have drug use disorders (WHO, 2013b).

It is the primary role of the school to teach skills that support mental and emotional well-being, impart knowledge and values in relation to health and substance abuse, and help students to adopt healthy lifestyles. It is important to recognize that these skills may not be able to change behaviors determined by factors beyond the influence of the school (UNODC, 2004).

Strategies

Educational interventions for the prevention of drug abuse are delivered by trained facilitators. In effective prevention programs students are engaged in interactive activities to give them the opportunity to learn and practice a range of personal and social skills. These programs focus on fostering drug and peer refusal abilities that allow young people to counter social pressures to use drugs and in general cope with challenging life situations in a healthy way. In addition, they provide the opportunity to discuss in an age-appropriate way the different social norms, attitudes and positive and negative expectations associated with substance use, including the consequences of substance use. Planning of school-based prevention interventions should take into account the following factors: levels of drug use among individuals and in society; risk and protective factors in the given community; gender; ethnicity; culture; language; developmental-level; ability-level; religion; and sexual orientation (UNODC, 2004). Specific substances should not be discussed before the initiation age. With primary schoolchildren, the most beneficial approaches focus on improving classroom management skills of teachers, and on supporting the growth of social and emotional skills of students (UNODC, 2013).

Effective school policies on substance use mandate that substances should not be used on school premises or during school functions and activities by both students and staff. Policies also create transparent and non-punitive mechanisms to address incidents of substance use, including referral and cessation support, to transform it into an educational and health promoting opportunity. Furthermore, altering the school environment to increase commitment to school, student participation, positive social relationships and discouraging negative behaviors may reduce drug use and other risky behaviors (UNODC, 2013).

Some responses to drug use may marginalize and stigmatize students. Detection of drug use with a solely punitive outcome is not a productive strategy unless the health and safety of the school community is being compromised. Strictly punitive consequences could alienate students at risk from the only place where individuals and activities can support their efforts to change (UNODC, 2004).

Substance Abuse Indicators Table

Indicators	Data Collection Frequency	Data Collection Methods
FRESH PILLARS		
EQUITABLE SCHOOL HEALTH POLICIES		
1. National curriculum includes a given number of hours per grade for evidence and skills-based education on substance use.	Every 2 to 3 years	Curriculum analysis (refer to the United Nations Office on Drugs and Crime (UNODC) Prevention Standards for definition of evidence-based)
2. Percentage of schools that have a written substance abuse policy (or health policy with a strong substance abuse component) prohibiting use of psychoactive substances, alcohol, and tobacco by students and by faculty and staff on all school premises and during all school-sponsored activities.	Every 3 to 5 years	Global SHPPS
3. Percentage of schools that have a written policy on how to respond in a non-punitive manner when students are caught using psychoactive substances, alcohol, or tobacco on school premises or during school-sponsored activities.	Every 3 to 5 years	Global SHPPS
SAFE LEARNING ENVIRONMENT		
1. Percentage of schools where substance abuse policies are regularly enforced.	Every 3 to 5 years	Global SHPPS
2. Percentage of schools where tobacco and alcohol advertising is prohibited on all school premises.	Every 3 to 5 years	Global SHPPS
SKILLS-BASED HEALTH EDUCATION		
1. Percentage of students that were taught about alcohol or other drug use prevention.	Every 3 to 5 years	GSHS
2. Percentage of students who were taught about tobacco use prevention.	Every 3 to 5 years	GSHS
SCHOOL-BASED HEALTH AND NUTRITION SERVICES		
1. Percentage of school-based clinical/ infirmary staff trained in substance abuse prevention and treatment.	Every 2 years	School and teacher survey
2. Percentage of schools where students found possessing or using alcohol, illegal drugs or prescription medicine for non-medical purposes are always mandated for further service and treatment.	Every 2 years	School and teacher survey
3. Percentage of schools where a school or family meeting is always organized for students found possessing or using alcohol, illegal drugs, cigarettes, or prescription medicine for non-medical purposes.	Every 2 years	School and teacher survey

OUTCOMES		
LEARNING		
1. Percentage of students answering they would accept, if one of their best friends offered a drink of alcohol.	Every 2 years	School survey/GSHS
2. Percentage of students who reported they have received substance specific information in schools.	Every 2 years	School survey/GSHS
3. Percentage of students answering they have been taught resistance skills in relation to alcohol.	Every 2 years	School survey
BEHAVIORAL		
1. Percentage of schools where staff members do not smoke during the day or smoke in designated areas.	Every 2 years	School and teacher surveys
2. Percentage of schools where students do not smoke on school grounds.	Every 2 years	School and teacher surveys
3. Percentage of students who had at least one alcoholic drink during the last 30 days.	Every 3 to 5 years	GSHS
4. Percentage of students who have used marijuana during the past 30 days.	Every 3 to 5 years	GSHS
5. Percentage of students who have used amphetamines or methamphetamines (also use country-specific slang terms) during their life.	Every 3 to 5 years	GSHS
6. Percentage of students who smoked cigarettes during the past 30 days.	Every 3 to 5 years	GSHS
IMPACT		
1. Percentage of students aged 13 to 15 years who have ever tried cannabis.	Every 3 to 5 years	School survey /GSHS or Health Behavior in School-Aged Children (HBSC).
2. Percentage of students aged 13 to 15 years who have ever been drunk.	Every 3 to 5 years	School survey /GSHS or HBSC.

Sources and Further Information

ESPAD. (2012). *The European School Survey Project on Alcohol and Other Drugs (ESPAD*). ESPAD. www.espad.org

EU-DAP. (n.d.). *UNPLUGGED Area: Education material. Prevention curriculum*. EU-DAP. http://www.eudap.net/Unplugged_HomePage.aspx

HBSC. (n.d.). *Health Behavior in School-aged Children (HBSC). WHO Collaborative Cross-National Survey.* St. Andrews, Fife, HBSC. http://www.hbsc.org/

Organization of American States. (2005). *Time to prevent. CICAD Hemispheric guidelines on school-based prevention.* Washington D.C., Organization of American States. http://cicad.oas.org/Main/Pubs/DR/Guidelines-School-Prev-eng.pdf

UNODC. (2013). *International Standards for Drug Use Prevention.* Vienna, UNODC. http://www.unodc.org/unodc/en/prevention/prevention-standards.html

UNODC. (2004). *Schools: School-based education for drug abuse prevention*. New York, United Nations. http://www.unodc.org/pdf/youthnet/handbook_school_english.pdf

World Health Organization (WHO). (2013a). *Substance abuse.* Geneva, WHO. http://www.who.int/topics/substance_abuse/en/

World Health Organization (WHO). (2013b). *Management of substance abuse. Facts and figures.* http://www.who.int/substance_abuse/facts/en/

World Health Organization (WHO). (2013c). *Global school-based student health survey (GSHS).* Geneva, WHO. http://www.who.int/chp/gshs/en/ (For substance use-related evaluation the following modules are specifically recommended: Alcohol Use Module, Drug Use Module, Tobacco Use Module, Mental Health Module, Protective Factors Module).

World Health Organization (WHO). (n.d.). *WHO Global School Health Policies and Practices Surveillance Study (SHPPS): Draft tools.* [unpublished document]. Geneva, WHO.

Reviewed by Giovanna Campello, Hanna Heikkila, and Beth Mattfeld, (UNODC) and Clemens Benedikt and Asha Mohamud (UNFPA).

Thematic Indicator 14: Violence in Schools

Rationale

Children spend more time in the care of adults in preschools and schools than they do anywhere else outside of their homes. Like parents, the adults who oversee, manage and staff these places have a duty to provide safe and nurturing environments that support and promote children's education and development. They also have a duty to make sure such development prepares children for life as responsible adults, guided by values of non-violence, gender equality, non-discrimination, tolerance and mutual respect. These are the values that governments embrace when they ratify the Convention on the Rights of the Child and other international human rights conventions (OHCHR, 2013; United Nations, 2006).

Schools are uniquely placed to break the patterns of violence by giving children, their parents and communities the knowledge and skills to communicate, negotiate and resolve conflicts in more constructive ways. The forms of violence found in schools can be physical, sexual, and emotional, and can occur together. Violence perpetrated by teachers and other school staff include corporal punishment and other cruel and humiliating forms of punishment or treatment, sexual and gender-based violence. Violence perpetrated by children includes bullying, sexual and dating violence, schoolyard fighting, gang violence, and assaults with weapons (United Nations, 2006). A physical attack occurs when one or more people hit or strike someone, or when one or more people hurt another person with a weapon (such as a stick, knife, or gun). It is not a physical attack when two students of about the same strength or power choose to fight each other.

Strategies

School-based anti-violence interventions include: interventions that develop better social skills, higher self-esteem and a greater sense of personal control over their lives, helping students attain higher levels of academic achievement; development and implementation of policies (or codes of conduct) governing the conduct and discipline of teachers and students and building community confidence in schools; good teacher recruitment and training; and involving parents and communities to monitor schools and intervene when necessary (United Nations, 2006). School-based anti-violence interventions also include dating violence prevention programs, evidence-based life skills programs, academic enrichment, and whole-school approaches.

Violence in Schools Indicators Table

Indicators	Data Collection Frequency	Data Collection Methods
FRESH PILLARS		
EQUITABLE SCHOOL HEALTH POLICIES		
1. Existence of national policy on violence prevention, prohibition of corporal punishment and/or bullying in school.	Annually	Key informant interviews
2. Percentage of schools that have or follow a written policy/guideline/rule prohibiting fighting and other forms of violence among students at school.	Every 3 to 5 years	Global SHPPS
3. Percentage of schools that have or follow a written policy/guideline/rule prohibiting bullying among students at school.	Every 3 to 5 years	Global SHPPS
4. Percentage of schools that have or follow a written policy/guideline/rule prohibiting physical or sexual abuse of students by teachers or staff.	Every 3 to 5 years	Global SHPPS
5. Percentage of schools that have or follow a written policy/guideline/rule prohibiting corporal punishments of students by teachers or staff.	Every 3 to 5 years	Global SHPPS
6. Percentage of schools routinely collecting data on violent incidents that have occurred on the school property.	Annually	School survey
SAFE LEARNING ENVIRONMENT		
1. Extent to which safety and security policy has been implemented in schools.	Annually	Key informant interviews
SKILLS-BASED HEALTH EDUCATION		
1. Percentage of students exposed to classes in which they were taught how to avoid physical fights and violence.	Every 2 years	School survey
2. Percentage of teachers who have been trained how to avoid bullying.	Annually	School survey
SCHOOL-BASED HEALTH AND NUTRITION SERVICES		
OUTCOMES		
LEARNING		
BEHAVIORAL		
1. [Optional] Percentage of students carrying guns and knives on the school property during the past 30 days.	Every 3 to 5 years	GSHS core expanded only

IMPACT		
1. Percentage of students who have been in a physical attack during the past 12 months.	Every 3 to 5 years	GSHS
2. Percentage of students who were bullied during the past 30 days.	Every 3 to 5 years	GSHS

Sources and Further Information

Plan International. (2013). *Learn without fear. The global campaign to end violence in schools.* Woking, Surrey, Plan International. http://plan-international.org/learnwithoutfear

United Nations. (2006). *Violence against children. United Nations Secretary-General's Study*. Geneva: UN. http://www.unicef.org/violencestudy/reports.html

United Nations Office of the High Commissioner for Human Rights (OHCHR). (2013). Convention on the rights of the child of 1989. Geneva, OHCHR. http://www.ohchr.org/EN/ProfessionalInterest/Pages/CRC.aspx

World Health Organization (WHO). (2013). Global school-based student health survey (GSHS). Geneva, WHO. http://www.who.int/chp/gshs/en/

World Health Organization (WHO). (2010a). *Violence prevention: the evidence. Series of briefings on violence prevention.* Geneva. WHO. http://www.who.int/violence_injury_prevention/violence/4th_milestones_meeting/evidence_briefings_all.pdf

World Health Organization (WHO). (2010b). *Preventing intimate partner and sexual violence against women: Taking action and generating evidence.* Geneva, WHO. http://apps.who.int/iris/bitstream/10665/44350/1/9789241564007_eng.pdf

Reviewed by Berit Kieselbach (WHO).

Thematic Indicator 15: Disaster Risk Reduction

Rationale

Emergencies, such as conflict-related, environment-related or health outbreak-related disasters expose school-age children to risks. Health epidemics or outbreaks of disease can be caused by emergencies or can by themselves cause an emergency. Disasters can have physical, educational, economic, and psychosocial impacts on schools (Petal, 2008). School attendance gives children a sense of security and continuity. Whether the emergency is a conflict, disaster or epidemic, children have the same rights to education and protection as in non-emergency situations.

Strategies

Schools or learning spaces that meet the Inter-Agency Network for Education in Emergencies minimum standards (INEE, 2012) provide protective policies and a safe and secure learning environment, relevant teaching and learning opportunities, and basic health, nutrition and psychosocial services. These minimum standards complement the Sphere Project *Humanitarian Charter and Minimum Standards in Disaster Response* (The Sphere Project, 2004).

Comprehensive School Safety aims to both protect children and staff from physical harm and to ensure school continuity. It rests on three pillars, as defined by agencies working on disaster risk reduction (UNICEF *et al.*, 2012):

- *Safe School Facilities:* Including safe site selection, safe access, disaster-resilient design, construction, maintenance and retrofit, and climate-smart interventions.
- *School Disaster Management:* Ongoing school-based assessment and planning for risk reduction and educational continuity; physical and environmental risk mitigation measures, standard operating procedures for the types of threats faced, and response preparedness (both skills-practiced and improved through drills -and provisions).
- *Risk Reduction Education:* Infusion of hazard awareness and key messages for actionable risk reduction as well as skills for problem-solving, in formal school curricula and non-formal education (IFRC, 2012; UNESCO, 2013).

Disaster risk reduction education through schools should start with teacher training and curriculum development to support large-scale teaching of disaster risk reduction. Governments should review the safety of schools and develop a comprehensive policy, taking all locally relevant hazards into account. Schools can start with teaching about safety and natural hazards (UNISDR, 2006).

Disaster Risk Reduction Indicators Table

Indicators	Data Collection Frequency	Data Collection Methods
FRESH PILLARS		
EQUITABLE SCHOOL HEALTH POLICIES		
1. Existence of a national-level comprehensive school disaster management plan for child safety and protection and educational continuity in the face of health, natural and man-made hazards, and conflict.	Every 2 years	Policy review
2. Existence of national-level guidance for standard operating procedures for all known hazards, to protect children from sudden onset disasters and emergencies and to respond to early warning.	Every 2 years	Policy review
3. Percentage of schools with an ongoing committee responsible for leading risk assessment, risk reduction and response preparedness planning.	Every 2 years	School survey
SAFE LEARNING ENVIRONMENT		
1. Percentage of schools designed and constructed, reconstructed or retrofitted to be disaster-resilient.	Every 2 years	School survey
2. Existence of building codes to ensure disaster-resilient construction of schools.	Every 2 years	Building code analysis
3. Percentage of schools and learning spaces sites selected to be safe from known hazards.	Every 2 years	School records
SKILLS-BASED HEALTH EDUCATION		
1. Life skills-based disaster risk reduction education for building a culture of safety and resilience is addressed in the national-level curricula and in school leaving examinations for primary and secondary schools.	Every 2 years	Curriculum review; national exams reviewed
2. Life skills-based disaster risk reduction education for building a culture of safety and resilience is addressed in all school informal learning activities.	Every 2 years	School survey
3. Pre-service and in-service training for teachers addressing life skills-based disaster risk reduction education for building a culture of safety and resilience.	Annually	Training records
SCHOOL-BASED HEALTH AND NUTRITION SERVICES		
OUTCOMES		
LEARNING		
1. Percentage of students who understand basic concepts of disease outbreaks.	Annually	School survey

2. Percentage of students who are familiar with key messages for disaster risk reduction for all hazards, and the specific hazards they face.	Annually	School survey
3. Percentage of students who are aware of their rights to safety and protection, and to educational continuity, and their responsibilities in protecting the environment and reducing risk.	Annually	School survey
BEHAVIORAL		
1. Percentage of students who have reviewed their daily practices and household disaster plans to become better stewards of risk reduction.	Annually	School survey
2. Percentage of learners for whom the school has designated emergency contacts for family reunification.	Annually	School survey
3. Percentage of students who have participated in school drills to improve emergency response skills for fire and other known hazards.	Annually	School survey
IMPACT		
1. Number of students attending school/education during or after an emergency event.	Every 2 years	School survey
2. Number of students NOT attending school/education during or after an emergency event.	Every 2 years	Data from disaster response team

Sources and Further Information

Inter-Agency Network for Education in Emergencies (INEE). (2012). Guidance notes on safer school construction. UN/ISDR, Geneva. www.preventionweb.net/go/10478

International Federation of Red Cross and Red Crescent Societies (IFRC). (2012). *Public education and public awareness for disaster risk reduction: Key messages.* Geneva, IFRC. http://preventionweb.net/go/31061

Petal, M. (2008). Disaster prevention for schools: *Guidance for education sector decision-makers. Consultation version.* Geneva, UN/ISDR. http://preventionweb.net/go/7344

The Sphere Project. (2004). *Humanitarian charter and minimum standards in disaster response. Geneva, The Sphere Project.* http://ocw.jhsph.edu/courses/refugeehealthcare/PDFs/SphereProjectHandbook.pdf

UNESCO. (2013). *Towards a learning culture of safety and resilience: Integrating disaster risk reduction into school curricula.* Kathmandu, UNESCO. http://www.unesco.org/new/en/kathmandu/about-this-office/single-view/news/towards_a_learning_culture_of_safety_and_resilience_integrating_disaster_risk_reduction_into_school_curricula/

UNESCO and UNICEF. (2012). *Disaster risk reduction in school curricula: Case studies from thirty countries.* Geneva, UNICEF & UNESCO. http://preventionweb.net/go/26470

UNICEF, UNESCO, Save the Children, Plan International, World Vision, and ADPC. (2012). *Comprehensive school safety. Working towards a global framework for climate-smart disaster risk reduction, bridging development and humanitarian action in the education sector.* http://preventionweb.net/go/31059

UNISDR (United Nations International Strategy for Disaster Reduction). (2006). *Disaster risk reduction begins at school: 2006-2007 world disaster reduction campaign.* Geneva, UNISDR. http://preventionweb.net/go/3914

Reviewed by Marla Petal (Risk RED).

For further information, please contact the FRESH partner organizations through info-iatt@unesco.org

www.unesco.org/new/health-education