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PROJECT

A Compendium of Resources **Integrating Water, Sanitation and Hygiene into Primary Schools and Teacher Training**



This document was produced for review by the United States Agency for International Development. It was prepared by the Hygiene Improvement Project and the Academy for Educational Development.

The need and desire to address water, sanitation and hygiene in primary schools is gaining momentum around the world. Teachers and education officials realize that lack of clean drinking water, toilet facilities and good hygiene practices in schools has a negative effect on the health of the entire school population and leads to an inability to learn and absenteeism. Girls pay an especially steep price for inadequate sanitary facilities by dropping out early to avoid the lack of privacy or to stay home caring for younger siblings suffering from diarrheal illness. Schools that teach its students about the importance of the three key practices: drinking safe water, using clean sanitation facilities, and washing hands with soap at critical times, and provide the simple enabling infrastructure, can become beacons of hygiene promotion in the communities they serve. Students from such “WASH-friendly” schools are champion promoters in their homes and can influence parents and siblings to adopt better hygiene practices. Teachers find that lessons on WASH themes not only are interesting for the students, but can be fun and lead to out-of-classroom activities such as clubs.

The USAID-funded Hygiene Improvement Project (HIP) supports the creation of WASH-friendly schools in countries such as Madagascar and Ethiopia, through materials development, teacher training, and programming guidance. Many other countries have expressed the wish to be involved in similar activities, and so HIP is offering a brief compendium of resources to help others “get started.” This compendium of resources is intended to give a boost to organizations or individuals planning or carrying out school-based education projects, pre or in-service teacher training, and programs aimed at orphans and vulnerable children. Its activities are focused on the primary school level, but of course hygiene and sanitation improvement is important at the secondary level as well. Its focus is more on in-classroom and extracurricular activities and less on infrastructure, although there are some references with guidance on this.

In this Compendium you will find:

- I. Guidelines for Integrating WASH into Teacher Life Skills Training (developed by HIP)
- II. Online WASH and Schools Resources
- III. Special 2008 section on “Global Handwashing Day 2008” – Get involved!

We at HIP sincerely hope that you will discover something useful and inspirational in this Compendium. It is a work in progress, and if you find something to share with others that we could add or would like more information please contact: hip@aed.org.

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The views expressed in the publication do not necessarily reflect the view of the United States Agency for International Development or the United States Government.

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Cover photo: *Washing hands with a tippy tap at a WASH-friendly school in Madagascar.* (photo credit: Crystal Thompson)

I. Guidelines for Integrating Water, Sanitation and Hygiene (WASH) into Teacher Training Curricula

Introduction

WASH in schools is not new, but it is receiving increased attention as countries unite in this International Year of Sanitation to find more workable and effective approaches for reducing WASH related diseases and reaching the Millennium Development Goals for access to sanitation and clean drinking water.

Integrating WASH in schools – making sure the school community has decent toilets or latrines, a place to wash hands with soap, and safe water to drink, and teaching children why this is so important and how to do it at school and at home – can

- Lower absenteeism from illnesses related to poor WASH conditions
- Increase and prolong girls' school attendance
- Improve the learning capacity of children
- Contribute to the development of the community where the school is located
- Instill lifelong positive habits in children

In addition, WASH activities in and out of the classroom can and should be FUN!

WASH in schools has three general components, which are outlined below:

1. Background: What teachers need to know about water, sanitation, and hygiene
2. In the classroom: What WASH lessons are important to teach children
3. In the school and community: How to make a school "WASH-friendly"

Background for Teachers

Why is WASH So Important?

Diarrhea is a serious problem and kills small children

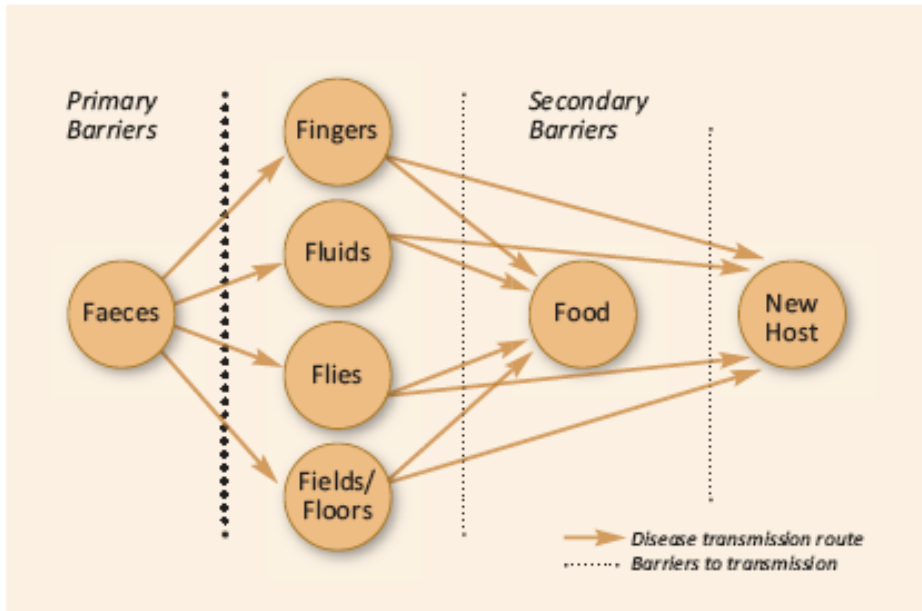
- Diarrheal disease kills 2.2 million people – mostly children under five – worldwide each year.
- There are around 4 billion cases of diarrhea each year.
- Diarrhea is caused by dirty water and lack of sanitation and good hygiene practices.
- Worldwide around 1.1 billion people lack access to improved water sources and 2.4 billion have no basic sanitation.
- Frequent diarrhea can cause malnutrition in children and make other health problems worse.
- Diarrhea is costly – work and school days lost, visits to health centers, fuel and medicine expenses.

Diarrhea is preventable!

- The "F-diagram" shows how feces spread by poor sanitation and hygiene practices can contaminate fingers, fluids, fields, floors, and flies, and that is how diarrhea germs in feces end up in our food or enter our mouths in other ways. Latrines can help stop transmission via fluids (drinking water) and fields and floors, and some improved latrines

may also break the flies route, but no type of latrine can prevent contamination of hands and fingers. Good hygiene practices are needed for this.

The F-diagram of disease transmission and control (after Wagner & Lanoix)



- Three key hygiene practices can block the feces transmission pathways and prevent diarrhea:
 1. Disposing of feces safely
 2. Drinking safe water
 3. Washing hands with soap at critical times

More About the Three Key Hygiene Practices

1. Disposing of feces safely can reduce diarrhea by 32%.

- “Improved” sanitation facilities include toilets, pit latrines with washable slabs, pour-flush latrines, and other models.
- Sanitation facilities are only effective if used by everyone all the times.
- Sanitation facilities must be kept clean to get rid of feces on the slab and odors.
- Open defecation puts everyone at risk for diarrheal disease and should never be practiced.
- Feces of small children and babies are also full of germs and must be disposed of safely: use potties, dump into latrines, and wash potty and hands afterwards with soap.
- If improved facilities are not available, dig a small hole and bury feces, covering well with dirt, until improved sanitation is available.

2. Drinking safe water can reduce diarrhea by 39%.

- Drinking water can become contaminated by feces during transportation from a water source, during storage, and during serving.
- Treating water at the point of use is an effective way of making it safe to drink. Treatment methods include:

- Point-of-use treatment using chlorine (sodium hypochlorite) solution produced locally
- SODIS (solar disinfection): fill clean plastic (PET) bottles with clear water, place on an inclined place (roof) in the sun for six hours (48 hours if cloudy), water will be safe to drink
- Filtering using special ceramic filters
- Boiling: heat water until a rolling boil begins. After cooling off, it is safe to drink if it has been kept covered
- To remain safe, water must be stored in clean containers with narrow necks, or covered with hard covers, or in jerricans or other closed containers with spigots.
- To keep treated water safe, hands and other objects should not be put into drinking water container. A ladle or cup attached to the storage container and only used for the purpose of serving the water should be used.

3. Washing hands with soap at critical times can reduce diarrhea by 44%.

- This is the single most cost-effective preventive measure available for diarrhea.
- The critical times for washing hands with soap are:
 - After using a latrine or toilet
 - After cleaning a child's or baby's bottom or potty
 - Before eating and feeding a child
 - Before handling or preparing food
- It is important to wash hands correctly: wet hands with running water, cover hands with soap and lather up, rub, and count to 30. Remember to rub backs of hands and under nails.
- Washing hands with water alone is not enough! Soap and rubbing helps remove germs.
- In areas where water is scarce, it is still possible to practice washing hands with soap using “tippy taps” — plastic bottles with holes in the cap and string attached to the top and the bottom that can hang over a piece of wood or a nail and be tipped to pour water over hands and tipped back to stop the flow.

If all three behaviors are practiced, the risk of diarrhea can be reduced by nearly half!

In the Classroom

WASH themes are cross-cutting, and WASH lessons can be complete lessons dedicated to the topic or woven into the usual curriculum. Math, science, reading, language, and art classes all have a spot for WASH! Contamination and treatment of drinking water is a good science lesson. Calculating the quantity of feces deposited into the community environment on a daily, monthly, and yearly basis if people practice open defecation is a good math exercise (and an eye opener!). The important thing is to connect the theoretical to the practical whenever possible because it is about *practicing* the three key hygiene practices, not just knowing what they are. WASH lessons are the very stuff of “life skills” and also lend themselves well to many active, participatory, and reality-based teaching and learning methods.

It is recommended not to dwell too much on the disease aspects of WASH but to make the lessons and the practices important but fun at the same time.

Songs and jingles are a great way to remember the three key practices!

Suggested WASH Lessons

General Introduction

- Germs: What are they? Where do they come from? Why are they important and sometimes dangerous?
- Diarrhea: How do we get this sickness? How can we stop it? Why is it important to know how to stop it?
- The three key hygiene practices: What are they? Why are they so important?

Sanitation

- All feces are dangerous: adults, children, even babies, and animals.
- How do feces get into our water, our food, our hands, and our mouths?
- How to dispose of feces correctly: pit latrines with washable slabs, toilets, burial (the way cats do).
- How to keep our latrines clean and safe: sweeping, washing slabs, never using them as a trash dump, burning wiping material.
- A good brother/sister/son/daughter teaches his/her family to use a latrine.
- Our school and community: where do pupils/people defecate? Make maps. Are we safe?
- Making our school a feces free place: what do we need to do? Plan of action for the school and for the parents.

Water

- Clear water can still be contaminated with invisible germs.
- Our school and our community: where do we get our water? Is it safe?
- How can we make drinking water safe?
 - Boiling
 - Solar disinfection (SODIS)
 - Chlorine treatment
 - Filtering
- How to store and serve drinking water correctly
- Plan of action for the school
- What can we do at home? Plan of action

Handwashing with Soap

- Handwashing with soap is one of the most important things you can do to stay healthy: why is it so important?
- How to wash hands correctly
- When do we need to wash our hands?
- What do we need to have to be able to wash hands?
 - Water
 - Soap (or ash or sand)
 - A place for handwashing near the latrine or toilet and in the house or outside the classroom
 - How to make a tippy tap (http://www.cdc.gov/safewater/publications_pages/tippy-tap.pdf)
- Our school and our community: where do we wash our hands? Do we have water? Soap? A special place for washing our hands?
- Making our school and our homes places where we can wash our hands with soap at the important times: Plan of action for building tippy taps or other handwashing stations near the latrine, classroom, home.

How to Have a WASH-Friendly School

WASH-friendly schools (WFS) is a growing movement throughout the world, with UNICEF being one of the pioneer promoters. In this International Year of Sanitation, WASH-friendly schools are being created more rapidly and with great commitment from the health and education sectors. This is in recognition that schools should be models for the community, and school children can be powerful motors of change and adoption of new behaviors. One key for success is the establishment and endorsement of criteria for WFS by the Ministry of Education and the development of guidelines for use by schools themselves.

Suggested Components of a WASH-Friendly School

- Teachers trained in WASH basics
- WASH curricular materials and promotional material for three key practices available
- WASH and three key practices integrated into the school curriculum
- Latrines for girls and boys, with washable slabs, doors or curtains for privacy
- Presence of handwashing stations near the latrines
- Continuous presence of soap or soap substitute like ash (parents can help with this)
- School rules for latrine use and maintenance and handwashing with soap after use
- Treated drinking water in adequate supply for school community
- Schoolwide system for operations and maintenance for any drinking water treatment and sanitation system that includes children
- WASH activities linking school and community. Possibilities:
 - PTA education and participation in latrine and other construction
 - Fairs with WASH-themed booths and demonstrations
 - Performances by students for community on WASH themes (musical, theatrical, other traditions)
 - Joint school-community committees for mapping available WASH infrastructure and carrying out community action plan for adequate coverage
- After-school clubs for interested students dedicated to WASH learning, promotion, and improvements, led by older students or interested teachers
- Guides for teachers and school directors
- Partnerships with providers of WASH hardware or funding for latrine construction and water treatment

An Example of a Wash-Friendly Approach in Schools in Madagascar

In Madagascar, the USAID Hygiene Improvement Project (HIP) has worked closely with the Ministry of Education (MOE) to develop a WASH-friendly schools program with guidelines approved by the Ministry and the national WASH Committee (Diorano-WASH). With trainers from the MOE, HIP has trained over 6,000 teachers and helped develop curricular materials. HIP is working with regional, district, and local MOE personnel to help schools work toward becoming WASH friendly. Experiences show that children are enthusiastic hygiene promoters and handwashers, and can be effective in helping younger siblings and parents adopt new practices.

Activities have included training education coordinators in each commune, who in turn train schoolteachers and community-level health clinic employees, who then teach their students and the general public. There are currently 134 communes (including two complete districts) in which all schoolteachers are trained. Trained teachers are expected to incorporate messages or lessons for their students about improved WASH behaviors on a regular basis, and students are encouraged to take WASH messages back to their families. Schools are also encouraged to build their own handwashing stations with contributions from the PTA and community. After participation in these training sessions, a number of schools also started a “Best Handwashing Station” competition.

Schools aim to receive “WASH-friendly” status, an important objective in the national Madagascar Action Plan. To meet the WASH-friendly school standards, a school must meet three requirements: 1) have washable latrines (separate for girls and boys) that are used by all students, 2) have handwashing stations with soap and that are regularly used by all students, and 3) have water for drinking that has been treated with a sodium-hypochlorite product or purified by boiling or SODIS.



Students at this WASH-friendly school have regular access to clean, treated drinking water.

HIP’s team performs regular follow-up visits to schools and health clinics to monitor progress and track problems. They have also trained community health educators and provided funding to conduct door-to-door education on the principles of WASH.

The three basic WASH ideas are becoming ingrained. Students at the schools showed that they know about hygiene and sanitation and can explain the three key WASH practices. It is reported that most teachers, parents, and community officials agree with and accept the WASH ideas. School leaders understand that the purpose of teaching WASH in the classroom is to have students spread the message to the rest of the community, and they are encouraging the students to do this. The director of one school states, “A WASH-friendly school means ongoing teachings about cleanliness, and students should spread the message outside of class.”

II. Online WASH and Schools Resources

WASH and Schools Tools and Publications

CHAST: Children’s Hygiene and Sanitation Training, Somalia. Tools and activities to encourage children to discover possible solutions to hygiene and sanitation related problems, using fun and child-friendly methods.

<http://www.irc.nl/page/13170>

Teachers Activity Book: Pakistan

<http://www.hip.watsan.net/page/2708>

Manual on School Sanitation and Hygiene: Toward Better Programming. UNICEF/IRC. 1998. A comprehensive manual on developing a school and community program, to include infrastructure provision and maintenance, and teaching materials development.

http://www.unicef.org/wes/files/Sch_e.pdf

Water, Sanitation and Hygiene Education for Schools Roundtable Meeting: Proceedings and Framework for Action. UNICEF and IRC. January 2005. Contains guidelines and country overviews.

http://www.unicef.org/wes/files/SSHE_OxfordRoundTable_2005.pdf

School Led Total Sanitation (SLTS): A successful model to promote school and community sanitation and hygiene in Nepal. Article on a promising approach by UNICEF and the Government of Nepal.

<http://www.irc.nl/content/download/133965/380830/file/ch-9.pdf>

Websites for Additional Resources

IRC – International Water and Sanitation Center located in the Hague, maintains a clearinghouse for knowledge sharing to support poor men, women, and children in developing countries to obtain water and sanitation services they will use and maintain. One of IRC’s many themes is WASH In schools, which has its own thematic webpage. This page links to papers, a newsfeed, events, a “TOP” (Thematic Overview Paper), and other school hygiene and sanitation resources.

http://www.irc.nl/home/themes/sanitation/wash_in_schools

School Sanitation Toolkit – World Bank: A comprehensive web resource to guide program developers in sector assessment, designing, and implementing school-based hygiene and sanitation programs. Its resource page contains many links to related websites.

<http://www.schoolsanitation.org/index.html>

The Global Public Private Partnership for Handwashing with Soap, a website devoted to handwashing and programs where the public and private sectors truly work together to promote this critical intervention. The PPPHW is housed in the World Bank, and this website highlights the country programs of the PPPHW.

<http://www.globalhandwashing.org/>

International Year of Sanitation: Focus on helping countries move rapidly closer to attaining the water/sanitation Millennium Development Goals. Comprehensive background material on all aspects of sanitation.

<http://esa.un.org/iys/>

III, Global Handwashing Day: From the Official Planner's Guide



Global Handwashing Day
October 15

2008 = FOCUS ON SCHOOLS

About Global Handwashing Day 2008

The practice of handwashing with soap tops the international hygiene agenda this year with the first-ever **Global Handwashing Day**, slated for Wednesday, October 15, 2008. The U.N. General Assembly has designated 2008 the International Year of Sanitation, and the Global Handwashing Day will echo and reinforce its call for improved hygiene practices.

The guiding vision of Global Handwashing Day **is a local and global culture of handwashing with soap**. Although people around the world wash their hands with water, very few wash their hands with soap at critical moments (after using the toilet or cleaning a child and before eating or handling food or feeding a child).

Handwashing with soap is among the most effective and inexpensive ways to prevent diarrheal diseases and pneumonia, which together are responsible for the majority of child deaths. Every year, more than 3.5 million children¹ do not live to celebrate their fifth birthday because of diarrhoea and pneumonia. Yet, despite its lifesaving potential, handwashing with soap is seldom practiced and not always easy to promote.

The challenge is to transform handwashing with soap from an abstract good idea into an automatic behavior performed in homes, schools, and communities worldwide. Turning handwashing with soap before eating and after using the toilet into an ingrained habit could save more lives than any single vaccine or medical intervention, cutting deaths from diarrhea by almost half² and deaths from acute respiratory infections by one-quarter.³ More handwashing with soap would make a significant contribution to meeting the Millennium Development Goal of reducing deaths among children under the age of five by two-thirds by 2015.

Global Handwashing Day will be the centerpiece of a week of activities that will mobilize millions of people in more than 20 countries across five continents to wash their hands with soap.

Launched by the **Public-Private Partnership for Handwashing with Soap** (PPPHW), the first-ever 2008 Day is designed primarily:

- to introduce the very idea of a Global Handwashing Day and began the process of yearly commemoration;
- to raise awareness about the benefits of handwashing with soap; and

¹ Unicef, *State of the World's Children 2008*

² Lorna Fewtrell, Rachel B Kaufmann, David Kay, Wayne Enanoria, Laurence Haller and Jr, John M Colford, 2005. "Water, sanitation, and hygiene interventions to reduce diarrhoea in less developed countries: a systematic review and meta-analysis." *The Lancet Infectious Diseases*, Volume 5, Issue 1, January 2005, Pages 42-52. Also, Curtis, V. and Cairncross, S. 2003. *Effect of washing hands with soap on diarrhoea risk in the community: A systematic review*. *The Lancet Infectious Diseases*, Vol. 3, May 2003, pp 275-281.

³ WELL Fact Sheet at <http://www.lboro.ac.uk/well/resources/fact-sheets/fact-sheets-htm/Handwashing.htm>.

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- to shine a spotlight on the state of handwashing in each country.

Long-term, Global Handwashing Day can become a powerful platform for advocacy aimed at policymakers and key stakeholders and an occasion for concrete public commitments to actions that will spur behavior change.

The inaugural Global Handwashing Day will revolve around schools and children. Children suffer disproportionately from diarrheal and respiratory diseases and deaths. But research shows that children – the segment of society so often the most energetic, enthusiastic, and open to new ideas – can also be part of the solution. Ideally situated at the intersection of the home, school, and community, children can be powerful agents of behavioral change.

On Global Handwashing Day, playgrounds, classrooms, community centers, and the public spaces of towns and cities will be awash with educational and awareness-raising activity throughout the entire week as countries unite to change handwashing behavior on a scale never seen before.

The Public-Private Partnership for Handwashing with Soap (PPPHW) is a coalition of international handwashing stakeholders. Established in 2001, the partnership includes the Water and Sanitation Program, UNICEF, USAID, the World Bank, the Centers for Disease Control and Prevention, the London School of Hygiene & Tropical Medicine, Johns Hopkins University School of Public Health, Colgate-Palmolive, Procter & Gamble, Unilever, the USAID/Hygiene Improvement Project, and the Water Supply and Sanitation Collaborative Council.

The goals of the PPPHW are to:

- (1) reduce the incidence of diarrhea and pneumonia in poor communities through public-private partnerships promoting handwashing with soap;
- (2) support its partners' large-scale, national handwashing interventions and promote replication of successful approaches; and
- (3) share scientific evidence showing handwashing with soap to be an exceptionally efficacious and cost-effective health intervention.

To download the Planners Guide and see what is happening in countries around the world on October 15, go to www.globalhandwashingday.org