

SWASH+ Learnings



A handbook for water, sanitation and hygiene programs in primary schools

Created for the SWASH+ Project
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with help from 320 schools in Nyanza Province

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www.swashplus.org

About SWASH+



Sustaining and Scaling School Water, Sanitation and Hygiene + Community Impact (SWASH+) is a five-year action research project funded by the Bill and Melinda Gates Foundation and the Global Water Challenge. The SWASH+ project is led by CARE Kenya in partnership with Emory University's Center for Global Safe Water and Great Lakes University of Kisumu. Previous partners also included Water.org (formerly Water Partners International), Kenya Water and Health Organization, and Sustainable Aid in Africa International.

From 2007 to 2012, SWASH+ worked with 320 public primary schools across Nyanza Province including Nyando, Kisumu East, Miwani, Muhoroni, Nyakach, North Rachuonyo, South Rachuonyo, Mbita, and Suba Districts. SWASH+ has also worked on programs and policies at the national level.

The key objectives for the SWASH+ project have been to identify, develop, and test innovative approaches to school-based water, sanitation, and hygiene (WASH).

Since 2007, SWASH+ has made the following investments in schools:

- Implemented “base package” of water treatment and hygiene promotion in 318 schools and 31 health clinics
- Constructed 1,227 latrines in 153 schools
- Constructed 23 boreholes and 92 rain water harvesting systems
- Conducted de-worming in 185 schools

Overall SWASH+ has directly provided water, sanitation, and hygiene services to roughly 120,000 pupils in Western Kenya

SWASH+ Research



SWASH+ has spent 5 years conducting front-line research on drinking water, hygiene, and latrines in schools—how they impact pupils, how they impact communities, and what it takes to maximize the benefits over the long term.

SWASH+ studies include:

- A sustainability review of previous efforts.
- A three-year randomized controlled trial involving facilities surveys and pupil, teacher and household surveys to determine health and educational impacts of improved school WASH.
- A latrine maintenance trial to determine impacts and outcomes of a focus on latrine maintenance and anal cleansing.
- An improved accountability and service delivery pilot to see if including budget lines for WASH operations and maintenance and involving communities more deeply in monitoring schools would have an impact on school WASH services.
- A pilot of the Kenya Education Sector Support Programme's method of directly funding schools paired with a roles and responsibilities assessment to identify specific, policy relevant learning on the model.
- A variety of sub-studies to drill more deeply on various questions including operations and maintenance costs of school WASH services, menstrual management and anal cleansing, rainwater harvesting systems and use of soapy water in lieu of bar soap.

In the next section, you can see the findings from these studies. **We hope that you will share these important findings with the teachers, parents, and pupils at your school.** We have provided discussion topics you can use to start a conversation with teachers, parents, and pupils about the issues raised by this research, and how it affects your school.

Assessing the impact of a school-based water treatment, hygiene and sanitation programme on pupil absence in Nyanza Province, Kenya: a cluster-randomized trial.
Freeman MC, Greene LE, Dreibelbis R, Saboori S, Muga R, Brumback B, Rheingans R. (2011) *Trop Med Int Health*.

What we did

We conducted a study in 135 primary schools in Nyando, Suba and Rachuonyo from 2007 to 2008 to look at the impact of school-based WASH on pupil absence. There were three groups of schools involved in the study:

- Group 1 received training on water treatment and hygiene promotion
- Group 2 received training on water treatment and hygiene promotion, plus additional latrines were constructed
- Group 3 received *none* of these programs (though they did receive them once the study ended)

What we found

Many school activities during the study period were affected by post-election violence. Among schools not affected, those that received water treatment and hygiene promotion showed a **58% decrease in girls' absenteeism**. The same effect was not seen among boys.

What this means for your school

Primary schools which daily provide clean water and promote hygiene through the use of handwashing with soap are more likely to have girl pupils who consistently attend school. While this study did not show that water, sanitation and hygiene reduce absenteeism in the boy-child, it does not mean that they do not benefit from these as well.

Discussion Points:

1. Why do you think girls may be affected more than boys by the provision of water, latrines, and handwashing?
2. Has your school seen any reduction in absence of girls? What about among boys?
 - a. Why do you think this is (or is not) the case at your school?
3. What other reasons are there for absenteeism?
 - a. Can your school think of ways to address these problems?

The impact of a school-based hygiene, water quality and sanitation intervention on soil-transmitted helminth reinfection: a cluster-randomized trial. Freeman MC, Clasen T, Brooker S, Akoko D, Rheingans R. *PLoS NTD*, in submission

What we did

We wanted assess the impact of water, sanitation and hygiene interventions in SWASH+ schools on reducing infection with soil-transmitted helminths following a deworming campaign. First we collected stool samples from pupils in forty SWASH+ schools in Rachuonyo and Nyando to look at the prevalence and intensity of worm infection among pupils. Then the Ministry of Public Health distributed deworming pills to all pupils in all SWASH+ schools. Afterwards, we took two more stool samples from pupils in the 40 schools to assess how hygiene and sanitation improvements affected levels of reinfection.

What we found

For the worm *Ascaris lumbricoides* or “roundworm” there was a significant reduction in prevalence for girls, but not for boys. For hookworm infection, there was a significant reduction among boys, specifically those without shoes, but not as much for girls.

What this means for your school

The provision of school-based sanitation, water quality and hygiene improvements may reduce reinfection of worms in schoolchildren, following deworming treatment.

Discussion Points:

The major causes of worms in children are: not wearing shoes, coming into contact with human or animal feces, drinking untreated water, not washing hands after a long call, not washing hands before eating, and eating unwashed raw fruits and vegetables.

- I. Considering the causes of worms, in what ways can each of the school stakeholders below help reduce the risk of children getting infected with worms at school?
 - a. Teachers
 - b. Pupils
 - c. Parents
 - d. Local government officers
- *Some examples of solutions: SMC can organize to build a fence to keep out animals, parents can ensure their children always wear shoes, teachers can make sure water is treated every day. Other ideas?*
 - *Can you think of action steps for these solutions?*

Sustaining school hand washing and water treatment programmes: lesson learned and to be learned. Saboori S, Mwaki A, Porter SE, Oketch B, Freeman MC, Rheingans RD. (2011) *Waterlines*, 30(4): 298-311

What we did

Between 2005 and 2006, CARE introduced 60 primary schools in the former districts of Homa Bay, Rachuonyo, and Suba to the Safe Water System (SWS) program. The program supplied schools with water containers that have a tap, a lid, metal stands, training on how to use WaterGuard to treat water, a large supply of WaterGuard, and handwashing training. Communities were expected to support the schools with soap for handwashing. In 2009, SWASH+ went back to 55 of these primary schools to see how well the program had been sustained over time.

What we found

Very few schools were able to sustain the program on their own after 2.5 years. Some schools were still treating their drinking water and one or two schools were still providing soap for handwashing. The other schools struggled in either providing water for pupils on a daily basis, or were not able to repurchase WaterGuard or handwashing soap once supplies ran out.

What this means for your school

We found the following areas where improvements could be made to help schools address these challenges:

Category	Improvement needed
Financial capacity	Government voteheads need to increase to cover recurrent costs for maintaining safe water and hygiene.
Accountability	Stakeholders from the school to national level must prioritize safe water and hygiene in schools.
Technical feasibility and availability	Schools need better information and access to resources like how to repair water containers or where to find replacement parts.
School leadership and management	Head teachers must prioritize water treatment and hygiene programs in order to create an atmosphere where all teachers see it as a priority.
Pupil engagement	Pupils must be engaged in water, sanitation, and hygiene activities within their schools in a regular systemic manner through vibrant school health clubs with lessons, dramas and song; not just latrine cleaning!
Community support	Schools can foster community participation in school water and hygiene through sharing information on WASH related activities and needs in the school during parent-teacher days or other community events.

Discussion Points:

1. What is the biggest challenge for your school in providing each of these essential WASH services each day:
 - a. Providing water for drinking and handwashing?
 - b. Treating water?
 - c. Providing handwashing soap?
 - d. Maintaining functional water containers?
2. Have these challenges been discussed at a teachers meeting or an SMC meeting?
 - a. What were some of the proposed solutions and action items?
3. Budgeting challenges exist for all government schools. Would parents at your school be more willing to contribute soap or WaterGuard instead of money?
4. Are handwashing with soap and treated drinking water both things that are important in your larger community, outside of the school?
 - a. If not, what can the school do to increase community support?

Water, sanitation, and primary absence: a multi-level assessment of determinants of household-reported absence in Kenya. Dreibelbis R, Greene L, Freeman MC, Saboori S, Rheingans R. (2011) Int J of Ed Dev, in submission

What we did

We wanted to better understand how the household characteristics of pupils, (such as wealth, head of household, water source, latrine) and water, sanitation, and hygiene conditions at school influence primary school absence.

What we found

Pupil absenteeism was higher in girls, and higher in poorer households. Absenteeism was higher for pupils whose home water source was far away, and who lived farther from school (over 20 minutes). Lower rates of absence were seen in pupils who had latrines at home. As far as school conditions, the data showed that the cleaner the school latrines, the less absence.

What this means for your school

As you know, absence in your school is due to a variety of reasons. However, some pupils are more likely to be absent than others due to uncontrollable factors such as gender, wealth, distance of home from school, and other household characteristics. Schools can decrease pupil absenteeism through providing clean latrines each day.

Discussion points:

1. Does your school have challenges with absenteeism?
 - a. Which pupils are most likely to be absent?
 - b. In what ways can your school better support those pupils who are more likely to be absent?
2. What can your school do to try and improve the conditions at school – to make children want to attend, and to provide a clean and healthy environment for everyone, everyday?
3. Are latrines valued in your community?
 - a. Why/why not?
 - b. If not, what can the school do to increase community support for latrines?

Impact of a school-based hygiene promotion and sanitation intervention on pupil hand contamination in western Kenya: a cluster randomized trial. Greene LE, Freeman MC, Akoko D, Saboori S, Moe C, Rheingans R. (2011) *American Journal of Tropical Medicine and Hygiene*, provisionally accepted

What we did

In 2006 we visited 17 SWASH+ intervention schools (Groups 1 and 2)* and 17 control schools (Group 3)* to measure the average amount of bacteria on pupils' hands. Eighteen months after the SWASH+ interventions, we again measured the bacteria on pupils' hands. We wanted to see whether the hygiene promotion program in particular, which consisted of training teachers and providing water buckets with taps, reduced the amount of fecal contamination on pupils' hands. *(see first study for Group descriptions)

What we found

Surprisingly, the hygiene promotion and water treatment intervention did **not** reduce risk of fecal matter on hands. In fact, pupils (particularly girls) from SWASH+ schools that received new latrines in addition to the hygiene promotion activities had **more** fecal contamination on their hands than pupils in schools that did not receive new latrines. There are several issues that may have contributed to these findings:

- Most intervention schools did not provide soap daily, so on the day of data collection, pupils at those schools did not have the opportunity to wash their hands thoroughly.
- Pupil interviews indicated that the hygiene lessons they received at school probably did not result in significant changes in their handwashing behavior after defecation.
- Pupil interviews indicated that girls increased their usage of school latrines in schools that received new latrines.
- None of the schools provided materials for anal cleansing, which can lead to greater contamination of one's hands after defecation.

What this means for your school

This study highlights that without the provision of soap and anal cleansing materials on a **daily basis**, sanitation improvements may not improve pupils' health—and could even be harmful. Additionally, hygiene promotion and health lessons are not always being effectively communicated to pupils. Schools should increase efforts to provide soap, water, and anal cleansing materials daily, and to find creative, effective strategies for promoting handwashing with soap to change pupil behaviors.

Discussion points:

1. Are you surprised by the results of this study?
 - a. Why do you think pupil's hands were dirtier in schools with new latrines than those without?
2. How do you feel when you are unable to wash your hands with soap after visiting the toilet?
3. What are some ways your school can improve handwashing behavior among pupils?
 - a. Can you think of any activities schools can do to help pupils develop consistent habits of always handwashing with soap after defecation and before eating?
4. What are some ways your school can ensure hygiene materials like soap, water, and anal cleansing materials are available every day for pupils?
 - a. Although soap is best, the act of rubbing hands together under water can still reduce germs – can your schools use 'clean dirt' or ash as a substitute when soap is not available?

Anal cleansing practices and fecal contamination: a preliminary investigation of behaviours and conditions in schools in rural Nyanza Province, Kenya. McMahon S, Caruso BA, Obure A, Okumu F, Rheingans RD. (2011) *Trop Med Int Health*, 16(12): 1536-1540

What we did

We talked with both boy and girl pupils aged 12–15 in three Nyando District schools in 2009 to learn how children clean themselves after defecation at school. At one school we also talked with parents. In early 2010, a survey of head teachers was conducted in 114 schools across Nyanza Province to better understand the provision of anal cleansing materials and handwashing water and soap in schools.

What we found

Pupils have gaps in knowledge regarding personal hygiene. How pupils deal with anal cleansing at school depends on access to materials, age, social pressure, perceived risk of illness, and emotional factors. Reported materials used for anal cleansing include schoolbook paper, leaves, grasses, stones, corncobs, and one's own hands. Almost no schools budgeted for or provided anal cleansing materials regularly.

What this means for your school

Providing toilets may not be sufficient to provide a safe and hygienic environment for school children if there are inadequate materials for anal cleansing. Schools can consider the following measures:

- **Teach personal hygiene to pupils.** Anal cleansing is a taboo topic, but pupils need to be taught how to clean themselves if they do not already do so properly. If teachers feel uncomfortable, perhaps this could be a role for the health club. ECD teachers should instruct their students on good hygiene behaviour at a young age including how to use a latrine, clean themselves, and wash their hands.
- **Send personal hygiene messages home.** Parents may not be aware that lack of anal cleansing materials and training can be a problem at school. If schools share this information at parent meetings, parents may devote resources to providing anal cleansing materials at schools.
- **Push for provision of anal cleansing materials.** Kenya's National School Health Guidelines state that 'Schools should provide appropriate anal cleansing materials (e.g. water, toilet paper, etc.)'. However, no funds are allocated for these materials, and toilet tissue is often too expensive for schools. Schools can engage parents on the issue, and also push Ministry of Education officials to designate the funds to address this important guideline.
- **Always provide soap and water for handwashing.** Especially if your school cannot provide toilet tissue, you must always have soap and water for handwashing. Pupils who have dirty hands leaving the latrine bring those dirty hands to the classrooms, to their schoolbooks, to other pupils, and to teachers. Soap, water, and good handwashing practices can prevent the spread of feces and infection.

Discussion Points:

1. Is this a challenge your school has discussed previously?
 - a. How can teachers discuss this topic with students?
2. There is some evidence that children who have access to clean water, clean latrines, and handwashing at school bring less illness from school back to their families – particularly the babies and toddlers in the house.
 - a. Are parents in your community aware that handwashing with soap at school may decrease diarrheal illness among all members of the household?

Is soapy water a viable solution for hand washing in schools? Saboori S, Mwaki A, Rheingans RD. (2010) *Waterlines*, 29(4): 329-336

What we did

Teachers from SWASH+ schools are always telling us that when bar soap is available they put it outside next to the handwashing containers and it soon “grows legs.” In an attempt to help schools maintain soap in their schools longer, SWASH+ partners piloted a handwashing intervention using 15g powdered soap mixed with 1L water to create soapy water in place of bar soap. Soapy water was introduced to 11 schools in Nyando, Rachuonyo, and Suba to see whether or not schools like the soapy water as an alternative to bar soap – and whether or not they would continue using it over time.

What we found

During the six months after being introduced to soapy water, 10 of the 11 schools used it consistently. Schools were given powdered soap for making their soapy water. One-year after being introduced to soapy water only 4 of the original 11 schools were still using soapy water. Some schools reported soapy water was easier to use than bar soap, it lasted longer and reduced theft.

What this means for your school

Soapy water is one inexpensive option for schools to promote daily handwashing with soap among their pupils. Handwashing with soap or soapy water is one of the best ways to reduce a wide array of diarrheal diseases and respiratory infections.

Discussion points:

1. Has your school had challenges with bar soap “growing legs”?
 - a. Do you think soapy water could be a good alternative?
2. Has your school tried, or does your school currently use soapy water?
 - a. What are some of the challenges your school has had with soapy water? What can be done to overcome those challenges?
3. Is handwashing with soap a challenge in homes in your community?
 - a. Is soapy water something worth suggesting to promote hygiene at community meetings like parent’s meetings, church, harambee, funerals, or weddings?

The girl with the period is the one to hang her head': Reflections on menstrual management among schoolgirls in rural Kenya. McMahon SA, Winch PJ, Caruso BA, Obure AF, Ogutu EA, Ochari IA, Rheingans RD. (2011) *BMC Int Health Hum Rights*, 11(7)

What we did

We talked to 48 girls who had started menstruating to better understand their perceptions and practices related to menstruation. We also interviewed nine teachers to understand their viewpoint and the challenges that they see for their girl pupils.

What we found

The girls we talked with knew little about menstruation and had many questions. They expressed fear, shame, distraction and confusion about menstruation. They had concerns about being teased by fellow pupils, and in one school reported being teased by male teachers. Because of these negative feelings and experiences, and the lack of open conversation about menstruation both at home and at school, girls felt they could not talk to anyone about menstruation.

Girls reported managing menstrual flow with cloth (which leaked frequently and caused irritation), mattress foam, wearing 'bikers', or simply going for a long walk. Cost and local availability prevented the use of commercial sanitary pads. The inadequacy of available materials and inadequate space to wash or change were a particular challenge for girls.

Teachers reported that girls' behaviors changed with the onset of menstruation. Girls considered to be 'lively' in class were reported to stop participating and become distracted during their period. Teachers reported that some girls start to leave school early, then miss entire days altogether.

What this means for your school – Discussion points

There are a variety of things schools can do to encourage their girl pupils and to help keep them from dropping out of school or falling behind due to absence once they start menstruating.

Consider how your school could address each of the following:

- **Girls need information.** Female teachers or women from the community can hold an afterschool session once per term to discuss reproductive health issues with girls so they have help answering questions and sharing how to manage their menses. It is important to engage girls who have started menstruating and those who have not.
- **Girls need facilities and resources to manage menses at school.** If schools have appropriate resources, girls do not have to leave school. Schools should provide separate latrines for girls with locks so girls can change in private. Water and soap for washing should be made available close to the latrines, where others cannot see.
- **Girls need support.** Teachers can help create a supportive environment and provide guidance for struggling girls. Girls need to know that they can leave class to manage their menstruation, and they will not be punished or teased upon returning.
- **Girls need to help each other.** Girls are important resources for one another, but are not encouraged to talk about menstruation. A 'girls group' at school could be one way for older girls to share with younger girls about girl-related issues, including menstruation.
- **Girls that miss school need help to get back on track.** Teachers can send missed lessons home to girls that miss a day or two of class during their menses, or be available to help girls with what they missed. Most importantly, a girl should not receive punishment for her absence, as this will encourage her to stay away.
- **Girls need a voice.** Teachers and parents do not always know what girls need because girls do not feel free to tell them. Teachers and parents should ask girls how they think their school experience can be improved, and they should try to make those improvements as they are able.

Effectiveness of School Management Committees in sustaining water, sanitation and hygiene activities in public primary schools. Ojenay, B (2011) Thesis.

What we did

We interviewed school management committee (SMC) members from 24 public primary schools in Muhoroni district that had received training on water treatment and hygiene promotion, as well as construction of latrines. The goal was to determine their role in sustaining water, sanitation, and hygiene in schools. We also interviewed education officers at the district and divisional level to get their perception on the roles and responsibilities of SMCs in regards to WASH at school.

What we found

Responsibilities of the SMC included allocation of funds for latrine construction, mobilization of resources from different stakeholders, monitoring and supervision of WASH facilities, and provision of supplies such as soap and water treatment products. We found that successful schools engaged all relevant stakeholders in the WASH activities.

What this means for your school

Budgeting and resource allocation are critical factors in the success of a school WASH program. The involvement of school management committee members is therefore key to ensuring sustainability of WASH facilities in schools, since they are integral in managing school resources.

Discussion points:

- I. How is the SMC involved in water, sanitation, and hygiene at your school?
 - a. What additional activities could they be involved in?
 - b. What information or resources does the SMC need to better support WASH in your school?

Implementation of the safe water system training curriculum in SWASH+ program schools in Kasipul Division, Rachuonyo South District. Migele J (2011) Thesis

What we did

We conducted an assessment in 16 SWASH+ schools in Rachuonyo South, Kasipul Division in 2011 to understand the extent to which patrons had implemented the safe water and hygiene training curriculum. Interviews were conducted with health club members and patrons.

What we found

In schools where the head teacher and general leadership did not support the safe water and hygiene program, health club activities were not implemented as well as expected. 96% of health club members reported that patrons were not available to train them, and 93% reported lack of forums to share information on their club activities.

What this means for your school

Head teacher support and adequate time and training resources for patrons are key challenges to implementing safe water and hygiene programs in schools.

Discussion points:

- I. How can your school ensure that patrons receive sufficient support and motivation to work with health club members?
 - a. Can your school involve other teachers in the health club?
2. What activities can health club members engage in to share WASH information with parents and other pupils?

Findings From the Field: Tips and Guides for Maintaining School WASH Systems



SWASH+ has worked with many schools over the past 5 years, talking to teachers, parents, and pupils—and we’ve learned a lot!

Here are some tips that we learned from our work with the 320 SWASH+ schools. We hope these tips can help your school maintain a good water, sanitation, and hygiene program. We have also included guides on programs you may want to try that can help improve the effective implementation of your school’s WASH program.

Tips for Drinking and Handwashing Stations

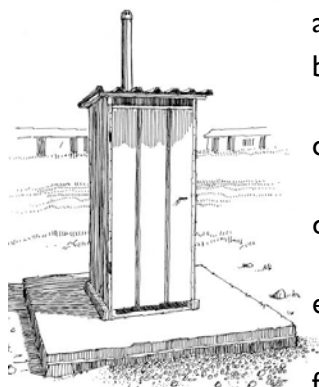
- Hand washing and drinking water vessels should be **checked** at break time, lunch time, and games time to see if water is finished. This way vessels can be refilled with water on time so pupils never have to go without drinking or handwashing water.
- **Rubber washers** around taps are essential to prevent leaks and keep the plastic containers from cracking.
- **Metal taps** can be used instead of plastic taps. Although they are more expensive initially, metal taps are strong and durable, hence can serve the pupils for longer and be more cost-effective over time.
- Stands can be improvised using **timber** or other materials—lack of a metal stand shouldn't prevent access to clean water and clean hands!
- **Shades** can be constructed to protect vessels from direct sunlight and lengthen their lifespan. Several schools have done this using scrap materials at very little cost.
- The area around hand washing and drinking water stations often becomes muddy and inaccessible, which can discourage pupils from using them. To facilitate access, consider one of these options:
 - a. Place a **basin or bucket** under the tap to catch the dirty water. You can then use this water to clean latrines! Just make sure younger pupils know not to use this water for drinking or handwashing.
 - b. Spread **marram/ballast** around the station to lessen muddiness.
 - c. **Dig a furrow** to direct water runoff, perhaps to plants or a tree.
- Pupils can be encouraged to **carry empty bottles** to use for drinking water.
- A small leak can become a big problem over time—**repairs** to vessels should be timely in order to avoid further damages.
- If your school has a problem maintaining bar soap, try using **soapy water**.

Tips for Water sources

- In order to maintain water sources, **regular checkups** should be performed, the source should be protected, and cleanliness of the area should be maintained.
- It is important to **prepare** rainwater harvesting systems for the rainy season, as well as to monitor periodically throughout the rainy season.
 - Make sure gutters and downspout are aligned and clear of rubbish, a sieve is in place, and that tanks are scoured, cleaned, and disinfected with chlorine.
 - Check for rusty brackets, rotten fascia boards, leaking joints, leaking taps.
- Be sure to check that **gutters** on rainwater harvesting systems are still in good order after storms, and do not paint roofs used for rainwater harvesting.
- When collecting water from boreholes, **full strokes** help prevent the rubber from wearing out.
- If your schools has a borehole, it may be important to have a **water committee** or point person to organize a collection when funds are needed for repairs – repairing small pieces every few months is much cheaper than needing a new pump!

Tips for Latrines

- Latrines should be cleaned at least once a day. **Clean latrines** encourage use and can prevent the spread of disease.
- **Latrine cleaning should never be used as punishment!** Pupils should see latrine cleaning as a collective responsibility. With proper brooms and cleaning supplies, pupils usually do not mind cleaning. Rotating which pupils clean is essential to keeping things fair; many schools assign one class (from Standards 4-8) to clean for every day of the week.
- Pupils should be trained to **report** to the teacher on duty when they find latrines dirty so that action is taken with an immediate effect.
- **Training** pupils on latrine use is key. Many pupils do not have latrines at home and are not accustomed to using them. ECD pupils should receive training from teachers and older pupils.
- Latrines should be maintained regularly. Here are some conditions latrines should have:



- a. **Walls** – Sturdy with no holes, so pupils have privacy and safety.
- b. **Doors** – Open and close easily to encourage use and prevent breakage, possibly requiring re-alignment or new hinges.
- c. **Latches** (inside and out) – Inside for privacy, outside so doors can be shut to keep flies out and protect the door from wind damage.
- d. **Floors** – Smooth for easy cleaning and slanted downwards towards the hole for better drainage.
- e. **Squat holes** – Not too close to walls, large enough for easy use; some schools may decide to keep one hole smaller for ECD pupils.
- f. **Vent pipes** – No cracks, reach through both floor and roof, cap and screen to prevent flies from carrying germs out of latrine.
- g. **Pits** – Monitored for fullness and emptied or otherwise managed in a timely manner.

Tips for Active Health Clubs

- Maintain a register for health club members, and ensure continuity through annual recruitment of members.
- Participation in peer teaching or other fun activities can help keep pupils interested and the health club active.

Tips for General Practices

- Once per term, parents and committee members should be invited to the school for a Walkthrough of the school's WASH facilities. Everyone can inspect and discuss the conditions of latrines, water points, water containers, and supplies all together. This facilitates awareness of problems and is a great way to start talking about solutions.
- Pupils can also take a Walkthrough with their classroom teacher and the health patron each month. This can enable pupils to feel comfortable discussing the latrines with their teachers, and can start a dialogue about the need to respect the school's WASH facilities.



INSTRUCTIONS FOR TREATING WATER

It is important to treat water correctly—otherwise you may be spending money without getting the full health benefits!

Steps for treating clear water with Chlorine (such as WaterGuard or Aquaguard)

1. If water is clear: **Add 1 cap per 20L**

If water is dirty or cloudy (for example from a river, pond, or earthpan), see instructions below to filter water before treating.

*Although less desirable: **2 caps per 20L** can be added to dirty or cloudy water if there is not enough time or resources for filtering.*

2. Cover the water immediately and stir or agitate the container for 30 seconds to disperse the chlorine solution throughout the water.
3. If water is clear: water is safe for drinking **30 minutes** after treatment.
If water is dirty or cloudy: water is safe for drinking **1 hour** after treatment.

Steps for filtering dirty or cloudy water **BEFORE** treating with Chlorine

1. Allow for leaves and dirt to settle in a storage container overnight before treatment.
2. Take a filter cloth, fold 2 or 3 times and hold firmly over the mouth of the empty container.
3. Have someone else slowly pour the water from the storage container through the filter cloth.
4. **Do not pour all water through the cloth**—the water at the bottom of the container (which has the dirt and leaves) should be discarded.
5. Water can now be treated using the instructions above.

Remember:

- Shake the bottle well before using WaterGuard or Aquaguard
- Store bottles away from heat and sunlight
- If there is accidental contact with eye or skin, rinse with clean water
- Check expiry date of the bottle before use
 - Be cautious when purchasing WaterGuard or Aquaguard in bulk – chlorine products do expire!

INSTRUCTIONS FOR MAKING SOAPY WATER

Many SWASH+ schools find that bar soap “disappears” during the school day. Soapy water is a simple alternative that is less likely to disappear. All you need is powdered soap and any plastic water or soda bottle! Here is how you make it:



1. Puncture a small hole in the cap of a plastic water or soda bottle.
2. Place **one capful** of powdered soap in a half-litre bottle, or **two capfuls** in a one-litre bottle.
3. Replace cap and shake (be sure to cover the hole!) to dissolve the powdered soap.

The solution will be watery, but **it should have the ability to create a soapy lather** in your hands. If there is no lather, you should add some additional powdered soap.

Washing hands correctly

Before making the switch to soapy water it is important to discuss the change at assembly so pupils know how to use the new soap in the right way. Here are the steps for proper handwashing with soapy water:

1. Turn on water—wet hands—turn off water
2. Squirt a **small amount** of soapy water into one hand through the hole in the cap
3. Rub hands together hard—palms, back of hands, between and around fingers, under the nails
4. Turn on water—continue to rub hands to rinse—turn off water
5. Shake hands dry



Initially pupils are likely to use a lot of soapy water since it will be a new thing to play with. It is important to inform all pupils that the bottles are meant for handwashing only. You can also teach them how to make their own at home!

How many soapy water bottles will your school need each day?

We suggest that you place one or two full bottles next to every handwashing station each morning. In addition, some schools decide to put one full soapy water bottle in every classroom so pupils can take it with them when they go to the latrines.

In order to ensure soapy water is available for effective handwashing at all times throughout the day, 4-8 additional **full bottles** (with no holes in the caps) should be kept in the office. During the day when a soapy water bottle is finished, pupils should be instructed to immediately bring the empty bottle to the office, switch the cap (with the hole) onto a full soapy water bottle, and bring the full bottle back to the handwashing station or classroom.

INSTRUCTIONS FOR CLEANING LATRINES

Latrines should be cleaned **at least once per day** and checked by someone such as a student prefect or the Teacher on Duty. Here is a suggested cleaning method:

1. Using the **broom**, sweep the inside roof, walls, corners and floor.
2. Fill **two buckets** halfway with water and bring to the latrines.
3. In one bucket, mix water with a *small amount* of **detergent** (such as Omo).
4. In the other bucket, mix water with a *small amount* of **disinfectant** (such as Jik).
5. Using a **small plastic container**, splash the **detergent-water** on the wall and the floors.
6. Scrub the **walls**, including the door latches inside and out with a **hand brush**.
7. Scrub the **floor** with a **long handled broom** or hard broom.
8. Using a small plastic container, splash the **disinfectant-water** on walls and floors to rinse.
9. Close the latrine door and **latch shut** when finished cleaning.
10. Once all latrines are clean, rinse all the brooms and brushes with the remaining water in the buckets. Allow materials to dry in the sun, then store them away.
11. **Wash hands** with soap or soapy water.



Remember:

- The Health Patron or other teachers should supervise the amount of detergent and disinfectant allocated to pupils for cleaning
- **Do NOT** use the cleaning buckets for carrying or storing drinking water
- **Do NOT** dip the brushes or brooms in the buckets during cleaning—always use a plastic container to draw water from the bucket so as not to contaminate the water
- **ALWAYS** wash hands after cleaning
- Latrine cleaning should not be used as punishment—and duties should be shared equally by boys and girls.
- If you don't already, try assigning one class to clean per day—Standard 4 on Monday, standard 5 on Tuesday, etc. That way all pupils can see cleaning as a normal duty and share in it equally!

Guide for Implementing a Water, Sanitation, and Hygiene (WASH) Attendant: Findings from the experience of 12 SWASH+ schools

A WASH attendant is a parent volunteer who helps in cleaning latrines or collecting water. Several SWASH+ schools tried this program, and their experiences are outlined below.

Duties of a WASH attendant

Having a WASH attendant does not mean that pupils are no longer involved in school WASH. The division of duties was decided by each school depending on their needs, and included:

- WASH attendant did a deep cleaning of latrines 2-3 times per week with detergents and disinfectants. On the other days of the week the pupils briefly swept out the latrines with water only.
- WASH attendant came every school-day morning to collect water and clean the latrines; pupils only cleaned if a mess was made during the day.
- WASH attendant cleaned latrines each day; pupils helped by collecting water and bringing it to the latrines for cleaning. Pupils also washed and filled drinking and handwashing containers, treated the water, and made soapy water.
- WASH attendant collected water instead of the children because the source was far away. The pupils clean the latrines and water containers themselves.

Reported Benefits of a WASH attendant

- The facilities are cleaner.
- The children spend more time in class and less time cleaning or collecting water.
- The children use the latrines properly and no longer use the bush.
- The children do not come in contact with faeces or chemicals when cleaning.
- The children have less diarrheal illnesses.

Reported challenges to implementing a WASH attendant

- SWASH+ supported schools with a small stipend to award WASH attendant volunteers (400KES per week), but many schools could not sustain this cost after the study period was finished.
- The WASH attendant found it difficult to come to the school every day.
- When the WASH attendant stops coming, pupils may be reluctant to return to cleaning duties.

Additional things to consider

- If your school chooses to implement a WASH Attendant to clean latrines, supplying gumboots, rubber gloves, and a face mask will increase the safety and dignity of the parent volunteer.
- Schools chose to award the WASH attendant different stipend amounts, from 200-1000KES per week, depending on the expectations of the position and the budgeting priorities at the school.
- One idea is to rotate parents each week or each month so all share in the work and no one gets tired with working at school.
- Another idea is to have parent volunteers assist with water collection and latrine cleaning duties during exam times only, so the pupils have more time to study.

Guide for Implementing Pupil Monitoring of Drinking Water, Handwashing and Latrine Facilities

One of the challenges we've seen at many schools is that it often takes some time before teachers learn that latrines have become dirty or were not cleaned well, soap was not provided, or water was not treated—leaving pupils vulnerable to disease.

Since pupils are the ones using these facilities, they can be a great resource to help the school with monitoring to ensure there is access to clean water, clean hands, and clean latrines at all times. If your school would like to enlist pupils to help with monitoring, here is a suggested program.

Overview of pupil monitoring

Pupils observe and record the conditions of the school's latrine, drinking water, and handwashing facilities each day using monitoring sheets. They then report those conditions to the teacher on duty or health patron, who can make sure necessary action is taken.

Training pupils

Initially, the health patron should train a few motivated health club members on how to use the monitoring sheets. This is done through accompanying the pupils for the first few times as they practice filling in the forms, until the pupils understand and use the monitoring forms correctly. Later, well-trained pupils can train other pupils in the same manner.

- *Tip: To prevent pupils from feeling overworked, have the trained pupils monitor with other pupils; the trained pupils can supervise and fill the sheets while the other pupils check on conditions.*
 - *Tip: It makes things easier if each latrine door is given a label (eg. G2). That way, if there is a dirty latrine pupils can write the door label on the monitoring sheet and teachers can find it easily.*
- Be sure they write the latrine number and don't just tick!**

Teachers do not have to monitor with the pupils every day, but the health patron and/or teacher on duty should periodically check conditions to confirm that pupils are filling the forms correctly.

Establish a reporting system

It is essential to establish a good reporting system; the purpose of pupil monitoring is to ensure that teachers know when water, sanitation, and hygiene conditions are not their best do they can take action.

Your school can decide what reporting system works best, but we suggest pupils bring completed forms to the teacher on duty each day after they monitor. The teacher on duty is then responsible for finding a solution to any issues that come up, such as getting out more supplies, having messy latrines cleaned again, consulting with the health patron or head teacher, etc.

Other points to consider

- We suggest that pupils fill the forms during lunch break. Monitoring at mid-day provides an opportunity to check on facilities after they have been used and still have time to address problems before the day is over.
 - Teachers on duty play a vital role in daily assessment of school conditions, and all teachers should be aware of the monitoring system and know how to use the sheets. The head teacher and health patron should call a meeting to train all teachers.
 - The school should have a binder or folder to hold both unused and completed forms. You can decide who gives the forms to pupils every day, the health patron or teacher on duty.
- ❖ ***If your school is interested in trying out Pupil Monitoring, we have included a reporting form on the next page you can copy.***

Pupil Water, Sanitation and Hygiene Monitoring Sheet

DATE: _____

PART A: Latrines Write the LATRINE NUMBER (ex: B4) in the appropriate space. DO NOT TICK!			
Condition	Bad	Okay	Very Good
Smell			
Flies			
Cleanliness of floor			
Cleanliness of walls			
PART B: Drinking water and handwashing Please answer the following questions:			
Is drinking water available right now?	<i>yes</i>	<i>no</i>	
Is drinking water treated today?	<i>yes</i>	<i>no</i>	
Is handwashing water available right now?	<i>yes</i>	<i>no</i>	
Is soap for handwashing available right now?	<i>yes</i>	<i>no</i>	
PART C: Problems with latrines, drinking water or hand washing Are there any problems that need attention today, such as very poor conditions, no supplies, unsafe latrines, or anything that is broken or missing?			

DATE: _____

PART A: Latrines Write the LATRINE NUMBER (ex: B4) in the appropriate space. DO NOT TICK!			
Condition	Bad	Okay	Very Good
Smell			
Flies			
Cleanliness of floor			
Cleanliness of walls			
PART B: Drinking water and handwashing Please answer the following questions:			
Is drinking water available right now?	<i>yes</i>	<i>no</i>	
Is drinking water treated today?	<i>yes</i>	<i>no</i>	
Is handwashing water available right now?	<i>yes</i>	<i>no</i>	
Is soap for handwashing available right now?	<i>yes</i>	<i>no</i>	
PART C: Problems with latrines, drinking water or hand washing Are there any problems that need attention today, such as very poor conditions, no supplies, unsafe latrines, or anything that is broken or missing?			

Guide for Implementing Parent Health Representatives

We have found that SMC members and other parents are often unaware of the problems schools face in maintaining their drinking water, handwashing and latrine facilities—and that parents are generally willing to be more involved once they learn about these challenges.

Parent Health Representatives are parent volunteers who can help the SMC and other parents stay informed about the state of the school's water, sanitation and hygiene facilities.

Overview of Parent Health Representatives

- Health Representatives visit the school, observe conditions, and talk to the health patron and/or head teacher **once a month**.
- They use a monitoring sheet to record whether supplies are available and what repairs, if any, are needed to the drinking water and handwashing stations, water sources, and latrines.
- Health Representative can then inform SMC members and parents about the status of school drinking water, handwashing, and latrine facilities at SMC and parent meetings.
- With this information the parents and school together can come up with a plan for how to address any problems and make sure that pupils stay healthy and perform well in school.

Implementing a Parent Health Representative program

If your school is interested in giving parents a structured way to gain information and take action on making sure the school's drinking water, handwashing, and latrine facilities are kept in good condition, here are suggested steps to implementing the program:

- 1. Hold an election for the Health Representative at your school's next parent meeting.** Health Representatives are intended to be a source of information for parents and encourage them to support the school. Therefore, they should be openly chosen by the entire parent body. Schools may choose to elect one, two, or more Health Representatives.

Be sure to clearly state what the responsibilities of the position will be, how long the position will be held, that it is a volunteer position with no monetary benefit, and identify qualities that the Health Representative must have.

- *Tip: Some schools have suggested that the Assistant Chief should be present at the election to ensure the community understands the importance of the position.*

- 2. Train Health Representatives.** The health patron should visit the school drinking water, handwashing, and latrine facilities with the new Health Representative(s) and practice filling in the monitoring guide together.

The health patron should also remind the Health Representative(s) that they should meet with the health patron and/or head teacher when they come to monitor every month. In addition, they should be invited to share what they have learned with SMC and parents at their meetings.

- 3. Monitor Health Representatives.** It is important for the health patron and/or head teacher to make sure that Health Representatives are fulfilling their duties; otherwise, you may need to choose a new parent. You should also ensure that the completed monitoring forms are kept in a binder or a folder so the school has a record of what problems they have faced.

- ❖ *If your school is interested in trying out Parent Representatives, we have included a monitoring form on the next page you can copy.*

Parent Water, Sanitation Hygiene Monitoring Guide

Name: _____

Date: _____

Part A: Supplies Please tick how much of each of the following is currently available, based on observation:

	None	Running very low	Sufficient
WaterGuard or Pur	—	—	—
Filter cloth	—	—	—
Soap for handwashing	—	—	—
Soapy water bottles	—	—	—
Soap for cleaning	—	—	—
Disinfectant for cleaning	—	—	—
Buckets for cleaning	—	—	—
Brooms for latrine cleaning only	—	—	—
Hand brushes for latrines walls	—	—	—
Tissue	—	—	—
Sanitary Towels	—	—	—
Other: _____	—	—	—
Other: _____	—	—	—

PART B: Latrine observation Are there any issues with the school's latrine facilities that need to be brought to the attention of the SMC and/or parents?

<p style="text-align: center;">Examples</p> <p>door: <i>missing, difficult to open or close, locked, broken or missing hinges/latches</i></p> <p>vent pipes: <i>cracked, no screen</i></p> <p>wall: <i>holes, dirty</i></p> <p>floor: <i>rough, cracked, holes, mud, water pooling, unsafe</i></p> <p>squat holes: <i>difficult to use</i></p> <p>accessibility: <i>mud, pooled water, bushiness</i></p>	<p>Please list the latrine number and problem here: (example: A1 - broken latch inside)</p>
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PART C: Water observation Are there any issues with the school's drinking water, hand washing facilities or water source that need to be brought to the attention of the SMC and/or parents?

<p style="text-align: center;">Examples</p> <p>vessels: <i>leaking, cracked, missing lids</i></p> <p>taps: <i>broken, difficult to use</i></p> <p>stands: <i>missing, broken</i></p> <p>area: <i>muddy around vessels, drinking water in the sun</i></p> <p>borehole: <i>broken part</i></p> <p>RWH: <i>gutters not aligned, broken taps, missing sieve</i></p> <p>general: <i>dirty water brought from home, source is very far</i></p>	<p>Please list the problem or broken/missing item here:</p>
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Plan for Community Action



We hope that this book has helped your school understand the importance of a water, sanitation, and hygiene program, show some of the challenges that schools face maintaining their program, and offer some ideas on what can be done to keep the program going.

In the following section, we outline an activity your school can undertake to:

1. Engage parents, teachers, and pupils to think about which areas in your school's water, sanitation, and hygiene program need improvement.
2. Come up with solutions to the problems you've identified.
3. Develop action steps to make those solutions a reality.

Working together, we hope that the stakeholder at your school can develop a plan to ensure that the pupils have **clean water, clean hands, clean latrines**—and a healthy learning environment.



Engaging the Community: An activity to improve school WASH

The availability and quality of water, sanitation and hygiene in schools is a community issue—and it deserves community action. Parents, pupils and teachers can all play a role in supporting school WASH. Below, we have outlined an activity that your school can undertake at a meeting with parents and teachers to develop a plan for improving the school’s WASH environment.

What you will need

- Newsprint and markers, or chalkboard and chalk
- A meeting of parents and teachers for at least one hour
- Activity leader
- Secretary

Step 1: Identify priority problems (15 min)

Your school may already know what improvements are needed to the WASH facilities. If not, before the meeting take a small group of parents and teachers on a walk through the school to look at the latrines, water points, drinking and handwashing containers, and supplies to see and discuss the status of these facilities. Then do the following:

1. Designate a speaker to share information on the school’s WASH problems with the larger group. List these problems on the newsprint or chalkboard.
2. As a group, identify 2 or 3 of these problems that are most critical and circle them.

Example problem: Pupils do not wash their hands regularly at school

Step 2: Discuss causes (10-15 min)

Now that you’ve identified 2-3 critical problems, it’s time to figure out why these problems exist. For each of the critical problems the group has identified:

1. Have a brainstorming session with the group where people call out what some of the causes of these problems might be (5 min per problem).
2. Write down these causes on the newsprint or chalkboard.

Example causes: soap is expensive, pupils steal the soap, handwashing containers are broken, teachers too busy to enforce handwashing, etc.

Step 3: Identify solutions (10 min)

Some solutions are easy and can be put in place quickly, while others take more time, financial investment, or require outside help. Think about whether each solution is easy, medium, or difficult.

1. Make a chart on the newsprint or chalkboard like the one below.
2. Pick one of the problems to start with. Considering the root causes the group has identified, ask the group to think of potential solutions to the problem that will overcome these causes—and whether this solution is easy, medium, or difficult.
3. Write down each solution in the appropriate space.

Solutions to problem: Pupils do not wash their hands regularly at school

Easy	<i>Talk to pupils about the importance of handwashing, try using soapy water to reduce theft</i>
Medium	<i>Encourage parents to donate soap</i>
Difficult	<i>Get increased funding from the government</i>

Step 4: Set action steps (10 minutes)

Action steps are **specific** actions that can be taken to make a solution a reality.

1. Make a list like the example below on the newsprint or chalkboard.
2. The activity leader should pick one of the **easy** solutions and ask the group for specific action steps that could be taken to make that solution a reality. Be sure to include **who** is responsible for the action step.
3. Write the action steps on the newsprint or chalkboard.
4. Repeat this process for one **medium** and one **difficult** solution.

Solution: *Ex: Talk to pupils about the importance of handwashing*

No.	Action	Who	When
1	Have the health club write and perform songs on the importance of handwashing	Health patron	Next week
2	Tell all teachers to encourage all pupils to wash their hands	Head teacher	Next teachers' meeting
3	Tell parents the school is encouraging all pupils to wash their hands and they should encourage them at home as well	SMC chair	Next parents' meeting

Step 5: Repeat for other problems

If there is enough time, go through Steps 3 and 4 with the other critical problems that the group identified.

Step 6: Decide how to tackle other WASH issues

By the end of this activity, your school should have a detailed plan for addressing up to 3 of the challenges that the school faces in providing pupils with clean water, clean hands, clean latrines, and a healthy learning environment. However, the school probably has more challenges to face.

Your school will need to decide how to go forward with identifying solutions and action steps for the remaining challenges. Here are a few ideas:

1. Try implementing **Health Representatives**, which were explained earlier in this book. They can help the school identify problems and lead this process of developing solutions and an action plan with the SMC. It is important to share these solutions and plans with the rest of the parents and teachers as well.
2. Create a **WASH improvement committee** that includes parents and teachers who are specifically responsible for coming up with plans for the remaining issues. Once again, it is important to share these solutions and plans with the rest of the parents and teachers as well.