

Water, Sanitation and Hygiene (WASH) in Schools

A companion to the
Child Friendly Schools Manual



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PREFACE

Over the past decade, the child-friendly schools (CFS) model has emerged as UNICEF's signature means to advocate for and promote quality education for every girl and boy. Child-friendly schools enable all children to achieve their full potential. As a part of a Global Capacity Development Programme on CFS, UNICEF has developed the *Child Friendly Schools Manual*, a reference document and practical guidebook to help countries implement CFS models appropriate to their specific circumstances.

The CFS approach to education guarantees all children the right to schools that are safe and protective, that offer potable drinking water, hand-washing facilities and clean, safe toilets. In child-friendly schools, children learn about hygiene and how to protect themselves and their families from infectious diseases.

As a companion to the *Child Friendly Schools Manual*, this module provides an in-depth guide to promoting WASH in Schools through curriculum and classroom practices. It is intended as general guidance adaptable to particular context and settings.

1

PURPOSE, SCOPE AND CONCEPT

Background

An estimated 1.9 billion school days could be gained if the Millennium Development Goals (MDGs) related to safe water supply and sanitation are achieved and the incidence of diarrhoeal illness is reduced.¹

One way of achieving this is by providing schools with safe drinking water, improved sanitation facilities and hygiene education that encourages the development of healthy behaviours for life. This strategic approach is known as Water, Sanitation and Hygiene Education (WASH) in Schools. The strategy helps fulfil children's rights to health, education and participation, and has been widely recognized for its significant contributions to achieving the MDGs – particularly those related to providing

access to primary education, reducing child mortality, improving water and sanitation, and promoting gender equality.

WASH in Schools not only promotes hygiene and increases access to quality education but also supports national and local interventions to establish equitable, sustainable access to safe water and basic sanitation services in schools.

Poor sanitation, water scarcity, inferior water quality and inappropriate hygiene behaviour are disastrous for infants and young children and are a major cause of mortality for children under five. Those conditions are also detrimental to the health of school-aged children, who spend long hours in schools. The physical environment and cleanliness of a school facility can significantly affect the health and well-being of children. Disease spreads quickly in cramped spaces with limited ventilation, where hand-washing facilities or soap are not available, and where toilets are in disrepair. Too often, schools are places where children become ill.

Purpose and scope

WASH in Schools aims to improve the health and learning performance of school-aged children – and, by extension, that of their families – by reducing the incidence of water- and sanitation-related diseases. Every child-friendly school requires appropriate WASH initiatives that keep the school environment clean and free of smells and inhibit the transmission of harmful bacteria, viruses and parasites.



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WASH in Schools also focuses on the development of life skills and the mobilization and involvement of parents, communities, governments and institutions to work together to improve hygiene, water and sanitation conditions. While there are many approaches based on differing cultural insights and environmental and social realities, any WASH in Schools intervention should include:

- Sustainable, safe water supply points, hand-washing stands and sanitation facilities;
- Fully integrated life skills education, focusing on key hygiene behaviours for schoolchildren and using participatory teaching techniques;
- Outreach to families and the wider community.

An efficiently and effectively implemented WASH in Schools programme will lead to students who:

- Are healthier;
- Perform better in school;
- Positively influence hygiene practices in their homes, among family members and in the wider community;
- Learn to observe, communicate, cooperate, listen and carry out decisions about hygienic conditions and practices for themselves, their friends and younger siblings whose hygiene they may care for (skills they may apply in other aspects of life);
- Change their current hygiene behaviour and continue better hygiene practices in the future;
- Learn about menstrual hygiene and physical and emotional changes during puberty (learning to avoid menstrual odour, discomfort and urinary or vaginal infections will encourage girls to come to school during menstruation);
- Practice gender-neutral division of hygiene-related tasks such as cleaning toilets, fetching and boiling water and taking care of the sick.



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WASH IN SCHOOLS IN PRACTICE

The *Child Friendly Schools (CFS) Manual* underscores the notion that to be truly child-friendly a school must have accessible, gender-appropriate toilets and hand-washing facilities, access to potable drinking water and solid waste management with proper boundaries. The school must also teach children appropriate hygiene practices.

This module explores various options for effectively implementing a WASH in Schools programme. A dynamic engagement of CFS principles to evaluate their feasibility and applicability in the country context will determine appropriate options for each school. Considering available resources, physical conditions, existing capacity and opportunities for change will yield a variety of solutions.

In essence, WASH in Schools is a pathway to healthier schools and healthier, better-performing children. Key CFS principles and desired features should be used as guides for interventions, stimulating discussion and creativity for the development of sustainable WASH in Schools programmes. These programmes must then be adapted to the practical realities of the school and its surrounding community.

Ensuring sustainability through involvement of national authorities, parents and communities

Any WASH in Schools intervention ultimately aims for government policies, community support and school action to sustain the initiative. The keys to sustainability are the development of political interest

and commitment, cooperation between ministries, a national education policy on WASH in Schools, national policies in related sectors and the allocation of sufficient financial and human resources. The policy should aim to improve children's education and health by creating an environment conducive to implementing, operating and maintaining WASH in Schools programmes.

Sustainable WASH in Schools programmes require the involvement and political leadership of ministries of education as well as related ministries such as health, public works, finance, local governance and water authorities. (*For more information on their roles, see Section 9.*) Without the political commitment evidenced in policies, standards and budgets, WASH in Schools remains externally subsidized. Such small-scale interventions cannot move beyond the pilot stage.

To become catalysts for building alliances for WASH in Schools, UNICEF and other partners must focus on gathering evidence, creating all-stakeholders' consultation venues and facilitating a coordinated, nationwide approach.

If faith-based and private schools do not fall under national policies, mechanisms must be found to promote WASH in those schools as well. In the past, these were considered schools for the privileged and did not generally require development interventions. However, the reality of the twenty-first century is that 11 per cent of primary and 24 per cent of secondary schoolchildren in developing countries attend non-state schools, with wide variations per country. In Bangladesh, for example, almost 40 per

EXAMPLES OF NATIONAL POLICIES ON WASH:

- In Angola, national plans include WASH facilities in schools.
- In 2008, national school standards in China, the Gambia, Pakistan and Thailand incorporated safe water supply and gender-segregated toilets.
- In 2008, national education curricula in China, the Democratic Republic of the Congo, Nicaragua and Sudan incorporated hygiene education.

cent of primary and 96 per cent of secondary school enrolments are in non-state schools. Many of the buildings and facilities in those schools suffer similar conditions as state-run schools² and would benefit from the same WASH interventions.

Involving families and communities in WASH in Schools interventions promotes a sense of ownership, which is a necessary prerequisite for sustainability. Involvement can take the shape of school management committees, parent-teacher associations or committees specifically set up for WASH in Schools. These groups are particularly important if health and education departments or local authorities are not prepared to provide such services.

Community mobilization and motivation will extend the impact of life skills development beyond schools to the whole community. If parents and the community understand the importance of appropriate hygienic behaviour, long-term effects will result.

Guidelines based on CFS principles

As part of the CFS framework for quality education, the implementation of WASH in Schools is guided by three key CFS principles: inclusion, democratic participation and child-centredness. These principles are translated into practice through engagement at the national, district and local levels.

UNICEF and the World Health Organization (WHO) developed guidelines on WASH standards for schools in low-cost settings, outlining key steps for successful management and implementation of WASH in Schools programmes at various levels.³ These guidelines recommend that each school design and construct child-friendly, gender-sensitive, well-made and sustainable facilities for sanitation, hand washing, water supply, compound fencing and solid waste collection.

Financial resources, physical condition, socio-economic circumstances and other national, district and local concerns impact decisions on standard WASH designs. These decisions may include elements such as protected wells, rainwater harvesting, piped water or pit latrines with slab, Ventilated improved pit (VIP) latrines, flush toilets or ecological sanitation.

There are also several design applications for schools that go beyond technical considerations. A child-friendly, gender-sensitive approach to WASH in Schools aims to design, construct and renovate facilities as part of the learning environment. Therefore, the guiding principle is that facilities should stimulate and promote appropriate hygiene practices among children.

Implementation guidelines for WASH in Schools

- a. Each school should work to develop adequate knowledge, attitudes and skills on hygiene through life skills-based hygiene education and child participation. Improving hygiene behaviour must go along with toilet construction and the provision of safe water and washing facilities in schools. Life skills-based hygiene education rests on the principle that new knowledge does not, by definition, translate into new practices. Therefore, life skills-based education seeks to instil hygiene practices into the realities of children's daily lives, helping them acquire the knowledge of appropriate hygiene behaviours and the skills to use them. This approach considers the learning differences of various stages of child development and addresses them in the programme design, allowing children to effectively transform knowledge into practice. *(For more information, see Section 4.)*
- b. Schools should actively engage parents and the community in WASH in Schools interventions. They are key partners during planning, implementation, operation and maintenance of facilities, and have important roles in monitoring the impact of WASH in Schools interventions and taking appropriate measures to improve children's health. Parents and communities should also be engaged in emergency preparedness and response plans, which address the operation and use of WASH facilities at schools during emergencies.
- c. Engaging families and communities ensures that children apply their knowledge at home. Global experience has shown that children are enthusiastic promoters of their newly acquired hygiene skills and can potentially be effective agents of change within their homes and communities. If messaging and practices are consistent with the cultural environment, children's advocacy can lead to better hygiene practices in homes and communities. *(For more information, see Section 5.)*
- d. Governments and development partners should establish a planning process and management model to address important issues such as long-term stability and going to scale. At national, local and school community levels and among different stakeholders, partners should design appropriate plans and define roles for capacity building and human resources, technologies and services selection, financial aspects, operation and maintenance and monitoring and evaluation. *(For more information, see Section 6.)*
- e. Development partners should work to create political ownership that engenders a demand-responsive approach,



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considers scaling up and results in effective long-term interventions. Any successful programme needs a favourable policy environment in which government partners support and activate the initiative. (*For more information, see Section 9.*)

- f. Joint efforts should include partnerships with non-governmental actors who deal with school health and hygiene. These should include private sector companies such as soap and toothpaste producers that promote hygienic behaviour among schoolchildren.⁴ These partnerships should:
 - Jointly advocate for political and social commitments from the government and create a community demand for the interventions. Where

democratic leaders are chosen, the voices of the people and civil society influence political decisions;

- Avoid the use of conflicting messages from different organizations;
- Prevent the duplication of efforts in the same region or the same school;
- Create interest in co-developing initiatives for joint programme methodologies and expanding coverage of those methodologies;
- Create common agreements on financing and cost recovery. Friction can arise when one programme is highly subsidized and contracted, while another has preconditions related to finances or parental input.

Implementation of WASH in Schools in various countries

BELIZE: A BASELINE STUDY AND PRIVATE-PUBLIC PARTNERSHIPS FOR WASH IN SCHOOLS

In 2007, UNICEF commissioned a water, sanitation and hygiene assessment of primary schools in Toledo and Stann Creek, two districts of Belize where studies revealed very low numbers of schools in compliance with acceptable standards based on student-to-facility ratios.

In 2009, UNICEF, in partnership with the Ministry of Education, launched a national assessment to gain an understanding of: (a) the physical state of WASH facilities in schools in all of Belize; (b) the principal challenges in providing adequate facilities in a sustainable manner; (c) the existing WASH practices within the community; (d) the available capacities for delivering WASH education, as well as capacity needs; and (e) a map of actors involved in the sector and their current and potential roles.

This assessment served as the basis for the development of WASH in Schools standards and an action plan for sustainably addressing the challenge at the national level. It was anticipated that the process would lay the foundation for increased collaboration across actors.

An integrated approach for WASH in Schools in Senegal

ACCESS TO SAFE, RELIABLE WATER IS A RIGHT, WHICH HAS MANY BENEFITS IN A SCHOOL

Running a school canteen requires water for preparing food, cooking and washing dishes.

When traditional community wells dry up, the school well can provide water to those who need it.

Growing vegetables for feeding programmes and for sale requires a plentiful and reliable water supply located close to the garden.

Promoting hand washing without a supply of soap and water is like having a bowl without food in it.

Clean, odour-free latrines need plenty of water for cleaning.

The dignity of prayer and respect for others requires water for washing.

Washing blackboards requires water throughout the day.



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Thirsty children don't make good pupils.

Spraying water helps control dust in classrooms and play areas.

Shady trees and bright flowers make a school an attractive place but they require water nearby.

Managing the construction and maintenance of a water supply develops skills that can be carried over to other school and community plans.

This diagram is from the Building for Life proposal prepared by UNICEF Senegal in 2004. While the proposal focused mainly on water supply, the diagram provides a good overview of the range of issues addressed by WASH in Schools interventions.

SCHOOLCHILDREN IN NEPAL LEAD COMMUNITY SANITATION DRIVE

In a country where only 31 per cent of the population has access to a toilet, UNICEF and the Government of Nepal launched the School Led Total Sanitation (SLTS) project in 2005. Together they trained teachers and initially offered to provide a toilet pan, a 10-foot pipe, and technical support for every household to construct a latrine. Eventually, the community members started buying their own materials.

The SLTS programme also includes adults from the community, such as members of the School Management Committee, the Parent-Teacher Association and the Mothers' Club, who make up part of the larger Cleanliness Committee. After the child club members and other school students receive training from their teachers, they campaign and educate their parents, who are often illiterate, and neighbours about the benefits of constructing a latrine and keeping their community clean.

Besides advocating for latrine construction, the joint committee of students and adult community members share responsibilities for trash collection, sweeping roads and clearing the neighbourhood of animal waste. Baijalpur is a model village in Nepal, with trash containers regularly spaced throughout and even strapped to tree trunks.

UNICEF reports that within a year of beginning the SLTS programme, the residents of Baijalpur achieved the goal of constructing latrines in all 314 homes. The community is an example in the region, and the school receives many visitors and teachers who want to follow suit in their own schools.

ACTION: YOUTH PARTICIPATION IN WASH PROGRAMME IN TAJIKISTAN

UNICEF organized highly successful Children's Water Forum programmes in Tajikistan, involving more than 500 children and young people in an effort to support youth participation in WASH education.

All youth participation programmes are modelled on a child-friendly, interdisciplinary curriculum that focuses on life skills, community service activities and peer-to-peer interaction. The Sanitation and Hygiene Promotion through Schools project is a hands-on approach to teaching and learning about WASH. The project employs a package of seven components, aligned with the days of the week:



Logo of the WASH in Schools programme in Tajikistan

- Monday:** safe handling of drinking water
- Tuesday:** safe disposal of wastewater
- Wednesday:** safe disposal of human excreta
- Thursday:** disposal of solid waste
- Friday:** household sanitation and food hygiene
- Saturday:** personal hygiene
- Sunday:** community sanitation through the Global Education Project

School meets six days per week; the Sunday community clean-up activity is a popular component among students, who take pride in civic responsibility.

Youth advocacy and outreach to promote safe water, sanitation and hygiene can make a significant impact on the overall health and development of a growing nation. There is no shortage of energy or ideas. For instance, student journalists, after publishing a widely-read newsletter, have requested support to produce a weekly state-wide television broadcast on the seven components. Youth participation is inherently linked to individual and collective capabilities, opportunities and access to information. Such an empowered society can develop itself and depend less on outside assistance.

3

LOCATION AND DESIGN

The two priorities when planning and constructing water points, toilets, urinals, school compound fencing and hand-washing areas are that (1) children can learn in a safe and healthy environment and (2) have the opportunity to practice the appropriate hygiene habits being taught in school. Financial resources, physical condition and socioeconomic circumstances affect the technical design choices for WASH facilities to meet UNICEF and WHO Joint Monitoring Programme standards for protected wells, rainwater harvesting, piped water or pit latrines with slab, VIP latrines, flush toilets and ecological sanitation.⁵

WASH facilities should encourage hygienic behaviour. Hygienic behaviour, such as using a toilet, washing hands and collecting water, comprises several small steps and necessary preparations. If the activity is difficult, complex or time-consuming, children will skip some necessary actions, creating potential health risks. Therefore, facilities must be close to the schools, have sufficient capacity, with enough toilets and sinks for the number of students, be sized appropriately and simple to use, and have water and soap available at all times for hand washing as well as anal cleansing.

Facilities should stimulate children's learning and development and be age appropriate. Younger children do not possess the same ability to learn complex concepts as older children. Acknowledging these different learning styles is not only important for the development of hygiene education materials, but also for the design of facilities. Interactive learning and playful engagement encourages children to put their new habits into practice.

WASH facilities are potential extensions of the learning environment, providing an opportunity for interaction and serving as powerful tools for hygiene education.

Children can be stimulated by their surroundings in various ways. The categories of development are:

- a. **Environmental:** Children receive information by seeing, smelling, hearing and touching, and they process this information based on their developmental stage. Spaces they encounter, including water, sanitation and hand-washing facilities, can provide a range of positive and negative experiences related to colours, smells, shapes and sounds.
- b. **Social:** The way that spaces are laid out and used can either offer seclusion or encourage contact with others. Toilets, for example, require both privacy and sharing space.
- c. **Creative:** The opportunity to make spaces their own and adapt them to suit their needs can inspire children's creativity. Children can decorate walls or solve functional problems, encouraging creative thinking.
- d. **Physiological:** The use of facilities can help to develop necessary motor skills in young children, such as fine-tuning physical movements. Using the facilities requires large motor skills (climbing stairs, using a pump) as well as fine motor skills (opening taps, using doorknobs and locks).

Guidelines for the design of facilities based on age⁶

EARLY PRIMARY SCHOOL: 5–7 YEARS

Facilities should be clean, use light colours and have sufficient natural light and ventilation. Hygiene promotion materials can be used to decorate in order to strengthen the link between education and practice. Facilities should be designed so that a teacher or older student can stand next to the child to teach proper toilet use or hand washing. However, most children can complete simple actions or tasks on their own or with minor assistance. There is no direct need for privacy inside the toilet block; children like to observe others and imitate their behaviours.

MIDDLE AND LATE PRIMARY SCHOOL: 8–11 YEARS

Schools should provide a clear and practical set-up of facilities with an understandable relationship between hygiene theory and practice. Facilities must offer integrated solutions for drinking water provision, hand washing, anal cleansing and waste disposal. They should offer privacy, including for children of the same sex.

LATE PRIMARY AND SECONDARY SCHOOL: 12–18 YEARS

Schools must ensure sufficient privacy for boys and girls, including inside facilities. Facilities for girls must have provisions for menstrual hygiene.

WASH facilities should prevent harm and promote care of the environment. Children are best sensitized to environmental issues in the school setting, where they are learning about issues related to daily living. As much as possible, schools should avoid negative environmental effects or degradation, while still addressing public health concerns. Plans and maintenance must manage toilets that may contaminate soil and groundwater, for example, or pumps and water taps that produce wastewater flows.

Environmental sustainability should be an integral part of the design, implementation,

operation and maintenance of facilities and the accompanying hygiene education programme. The challenge is to promote awareness of environmental issues while providing incentives and tools to address them. Discussions should include impact on climate change and conservation of natural resources.

WASH facilities must feature appropriate dimensions and adjustments for children. Design adaptations can make facilities accessible and comfortable for children. Children are smaller and have less physical strength than adults. Facility designs should reflect these differences. For the

youngest children, facilities should be adapted to allow for adults to supervise and help when children use the toilets, hand-washing facilities or water points.

In larger schools, separate toilet facilities should be built for younger children and older children; for girls and boys, particularly adolescents; and for female and male teachers. In small schools, where different age groups use the same facilities, special provisions can be made for smaller children, such as a step in front of a pump or toilet seat, or an additional seat cover with a smaller hole. Facilities must also provide ways for adolescent girls to dispose of sanitary pads without interruption from young children or boys. It is impossible to set international standards for dimensions of facilities because the height and size of children may vary per region. A participatory mathematics exercise, in which children measure their height and size while standing, squatting or sitting, provides good information for determining dimensions.

Toilets and water supplies must be appropriately situated within the school grounds. Even a well-designed facility may not be used if it is located in a way that fails to take into account practical, environmental or cultural considerations. This can become especially difficult when there are conflicting solutions or different preferences among user groups. Determining location demands a process of setting priorities and ensuring participatory decision-making.

The following criteria should be considered when choosing a location for school toilets and water supply:

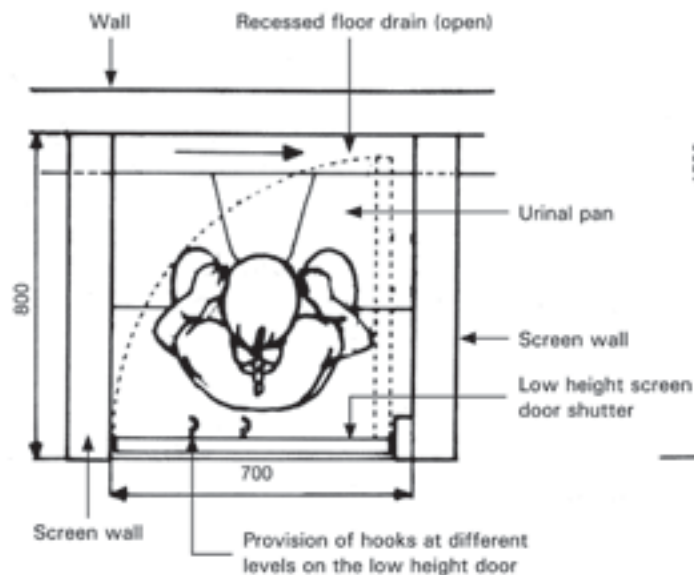
- Children need to feel secure when visiting WASH facilities. They should not be at risk of harassment by people

or attacks by animals such as snakes, scorpions or spiders. Access routes must be open and clear and the facilities in audible and visible proximity to the community, in the event that immediate assistance is needed.

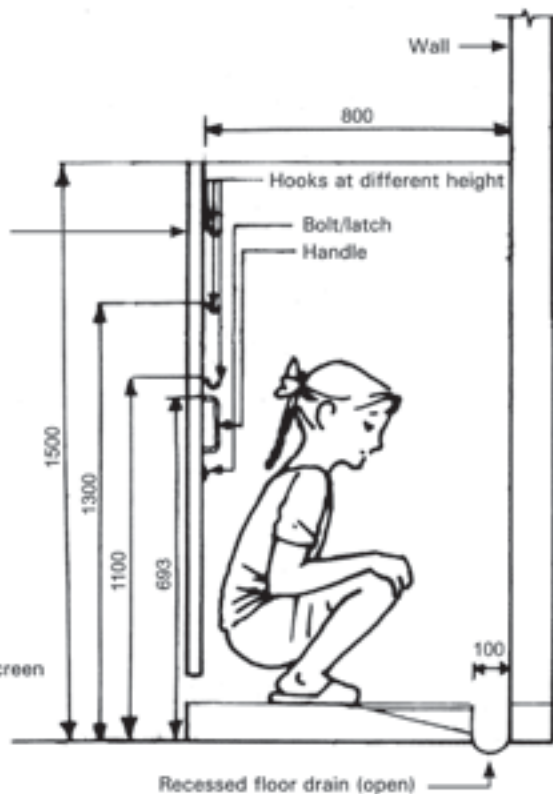
- Toilet facilities and urinals should guarantee privacy, particularly for people over the age of eight. In some cultures, it is important not to be seen entering or leaving the toilet. Access routes may be better situated away from the busy part of the community, while at the same time open and clear for security reasons.
- It must be possible to reach the facilities during all weather conditions, including after heavy rains or flooding. Sufficient lighting is needed for children who use facilities at night (in boarding schools).
- Facilities only contribute to health and hygiene improvements if properly used. For younger children, adult supervision of behaviour and skills is essential. Some locations will ease supervision. Locating a hand-washing facility near the classroom of younger children, for instance, allows for better monitoring than placing it near the toilet exit.
- The location of the facilities should allow for security to reduce the risk of vandalism, particularly when communal WASH facilities are being installed. An individual or group of supervisors can be assigned this task.
- Toilets and urinals are frequently located close to other producers of odours and flies, such as garbage dumps, cattle or animal pens. Such placement discourages people from using them. Facilities should be situated elsewhere or solutions designed to minimize nuisance and environmental degradation.

GIRL'S URINAL: PROVISION OF DOOR & LOCATION OF HARDWARE FITTINGS

Drawing 2:19a. Plan



Drawing 2:19b. Section



- Urinal design for girls needs a urinal on the floor with *properly sloped impervious floor* towards the drain that carries the urine, and wall with impervious surface like ceramic tiles.
- For privacy, it also needs a *low height door* (1500mm height, as shown) with provisions of hooks to hang any loose clothing if needed to prevent it from soiling on the wet floor.
- The width of 700mm shown in the plan takes into account the clothing that girls usually wear across the country.
- The depth of 800mm takes into account the seating posture and the desired clearance, while economizing the space to the extent possible. It is assumed that adult lady teachers will be using the toilet for urinal purpose.
- The *open drain* to be 100mm wide so that it can be cleaned periodically. *The slope of the floor towards this drain to be ensured.*

Urinal design used for girls in India⁷

- Toilets with leach-pits need to be located downstream from a spring and at least 20-30 metres from wells and water sources to avoid pollution of water sources. The further the horizontal distance the pathogen must travel from the point of entry into the water table, the more likely the pathogen will die. Pits should not be as deep as the groundwater table.

WASH facilities must provide sufficient capacity and minimal waiting time. For water use in schools, WHO and UNICEF⁸ apply a ratio of 5 litres per student per day for drinking and hand washing. When there are not enough toilets, taps and waste bins for the number of schoolchildren, they inevitably urinate and defecate elsewhere, 'forget' to wash their hands, throw garbage on the ground or drink water from unsafe sources. Ensuring the right capacity in facilities is usually not a matter of applying a simple ratio. Different literature and country standards use a ratio of 1 toilet for 20-40 children. Beyond the total number of schoolchildren, factors that determine required capacity may include the times when children are allowed to go to the toilet, drink water or wash hands, and the number of classes and future growth of the school population. Arguments that applying this ratio is too costly can be partly countered by the construction of less costly urinals instead of latrines for both girls and boys.

WASH facilities must consider the specific needs of girls and women.⁹ When adolescent girls attend school during menstruation, they need toilets appropriate for girls, a water supply to wash in privacy

and covered containers inside the toilet area to dispose of sanitary pads.¹⁰ If such facilities are not available, adolescent girls may be unable to remain comfortably in class.

The special needs of children with disabilities must also be taken into account in facility design plans. There are over a billion people in the world living with some form of disability. Estimates of the number of children with disabilities vary widely, depending on how disability is defined and measured. These wide variations indicate that children with disabilities are too often not identified and therefore do not receive the services they need.¹¹

These children are often excluded from basic facilities, resulting in isolation, poor health and poverty. The lack of accessible school toilets can deter children with disabilities from attending school. If incorporated into the original design, adaptations can be made at little or no additional expense. Adaptations in WASH facilities should be made for at least the following categories of persons with disabilities:

- Children with poor vision: special grips, guiding systems and proper lighting are needed.
- Children in wheelchairs or with crutches: facilities should include ramps, wider doors, extra room inside stalls for a wheelchair or assistant and special grips or foldable seats.
- People with missing or paralyzed limbs: lids, taps and knobs must be light and manoeuvrable with one hand or with feet.

Designed with involvement of all

All phases of the design process require the active involvement of users. In most countries, standardized designs are used for WASH in Schools to reduce costs and control quality.¹² This can be a good solution, but applying a standard design too rigidly can lead to the neglect of specific local preconditions and needs. In general, when properly coached and guided, teachers and

children are perfectly able to assess their existing practices and find solutions for their own needs. Their involvement during the design phase of WASH facilities will lead to better solutions and increased acceptance of these solutions.

If a safe water point is provided to a school, it is also important that the entire community has access to safe water. If they do not have an adequate supply, it will be

CHILD- AND DISABLED-FRIENDLY WASH IN SCHOOLS FACILITIES IN SRI LANKA

This project is implemented as a part of the child-friendly school concept of UNICEF Sri Lanka. It reaches beyond construction of physical water and sanitation facilities to promote positive attitudes and behavioural change among children, creating ownership and a sense of responsibility through:

- a. Planning facilities for each school with the participation of children, teachers and parents;
- b. Actively involving children in decisions about the type, number and combination of facilities, followed by a mapping exercise to locate them in the school premises;
- c. Paying attention to children's feedback in the technical designs. As a result, some existing features were modified and new features were added;
- d. Adding a disabled-friendly latrine to the package, making sensitive changes in attitudes and encouraging disabled children to go to school;
- e. Designing units of each facility (latrine, urinal, etc.) and developing combined blocks of those units as determined by children during the planning;
- f. Reactivating school health clubs and strengthening their responsibilities for maintaining the new facilities;
- g. Conducting lessons that promote hygiene and good habits with children.

Malteser International, a non-governmental organization (NGO), facilitated the participatory planning and hygiene promotion, while the United Nations Office for Project Services handled the construction.¹³ The entire process has been endorsed and monitored by the Department of Education and fully implemented in 24 schools in the Southern Province of Sri Lanka.

difficult to stop them from fetching their household water from the school supply. When simultaneous water provision to the community is impossible, a system can be put in place to manage the water point judiciously, selling water at an affordable price to households in need. Funds collected can underwrite monitoring and evaluation and school hygiene and sanitation needs, such as soap. Such a system requires formal arrangements between communities and schools. Communities that want to share water may do so, as long as they do not affect the water provision to the school.

Remaining challenges

A successful WASH facility strikes the right balance between cost and quality; low-cost solutions must not compromise quality. The best facilities are affordable, durable and easy to use, maintain and clean. For example, there must be proper drains for excess water at wells and surfaces that come into contact with faeces or urine must be impermeable and easy to clean. Despite higher initial investment costs, these facilities will have longer life spans, require less maintenance, and promote better health, saving money in the long term.

A well-designed facility also requires an operation and maintenance plan so that it does not swiftly deteriorate. A good operation and maintenance plan will identify who is responsible for cleaning and maintaining the facility and what costs are involved. The plan should be developed and agreed upon before the facilities are completed.

An operation and maintenance plan will:

- Invite children, teachers, parents and the local committee to contribute to the

continuous process of monitoring and improving hygiene practices at school.

- Protect the best interest of all children at all times. Child participation should never be child labour. Girls and boys should participate equally in cleaning and maintenance. Cleaning should not be used as a punishment for poor learning achievement or bad behaviour.
- Link to other school improvement efforts, such as classroom construction.
- Provide for annual or biannual training on operation and maintenance skills.
- Include arrangements for cost sharing by local authorities, the school and, potentially, parents or the community. For example, authorities may finance spare parts, while the school and parents provide labour and cleaning materials.

Partners must have financial means to keep WASH facilities clean, hygienic and well maintained. For the development of long-term, sustainable and large-scale programmes, financial planning and management is crucial. In recent years, many WASH in Schools programmes have moved beyond their small-scale, fully subsidized beginnings, entering a phase in which they must become financially sustainable. Programmes sometimes have difficulty making this transition due to capacity problems and a lack of financial planning and management. Addressing financial sustainability during the planning and start-up phase will circumvent this difficulty. Clear financial policies can help underpin a more efficient, equitable and sustainable use of resources through the promotion of cost recovery and financing by institutions in private and faith-based schools or by government partners in public schools.

STANDARDS FOR WASH IN SCHOOLS¹⁴

1. **Water quality:** Water for drinking, cooking, personal hygiene, cleaning and laundry is safe for the purpose intended.

Indicators

- a. **Microbiological quality of drinking water:** Escherichia coli or thermotolerant coliform bacteria are not detectable in any 100-ml sample.
- b. **Treatment of drinking water:** Drinking water from unprotected sources is treated to ensure microbiological safety.
- c. **Chemical and radiological quality of drinking water.** Water meets WHO *Guidelines for Drinking-water Quality* or national standards and acceptance levels concerning chemical and radiological parameters.
- d. **Acceptability of drinking water:** There are no tastes, odours or colours that would discourage consumption of the water.
- e. **Water for other purposes:** Water that is not of drinking water quality is used only for cleaning, laundry and sanitation.

2. **Water Quantity:** Sufficient water is available at all times for drinking and personal hygiene, and for food preparation, cleaning and laundry when applicable.

Indicators

- a. **Basic quantities required**

Day schools	5 litres per person per day for all schoolchildren and staff
Boarding schools ¹⁵	20 litres per person per day for all residential schoolchildren and staff

- b. **Additional quantities required** (The following should be added to the basic quantities as necessary. Figures given are for day schools. They should be doubled for boarding schools.)

Flushing toilets	10–20 litres per person per day for conventional flushing toilets/1.5–3 litres per person per day for pour-flush toilets
Anal washing/cleansing ¹⁶	1–2 litres per person per day

continued...

2. **Water facilities and access to water:** Sufficient water-collection points and water-use facilities are available in the school, allowing convenient access to, and use of, water for drinking and personal hygiene, and for food preparation, cleaning and laundry.

Indicators

- a. A reliable water point, with soap or a suitable alternative, is available at all the critical points within the school, particularly toilets and kitchens.
 - b. A reliable drinking water point is accessible for staff and schoolchildren at all times.
4. **Hygiene promotion:** Correct use and maintenance of water and sanitation facilities is ensured through sustained hygiene promotion. Water and sanitation facilities are used as resources for hygiene education.

Indicators

- a. Hygiene education is included in the school curriculum.
 - b. Positive hygiene behaviours, including correct use and maintenance of facilities, are systematically promoted among staff and schoolchildren.
 - c. Facilities and resources enable staff and schoolchildren to practice behaviours that control disease transmission in an easy and timely way.
5. **Toilets:** Sufficient, accessible, private, secure, clean and culturally-appropriate toilets are provided for schoolchildren and staff.

Indicators

- a. There are sufficient toilets available – 1 per 25 girls or female staff, and 1 toilet plus 1 urinal (or 50 centimetres of urinal wall) per 50 boys or male staff.
- b. Toilets are easily accessible – no more than 30 metres from all users.
- c. Toilets provide privacy and security.
- d. Toilets are child-friendly and appropriate to local cultural, social and environmental conditions.
- e. Toilets are hygienic to use and easy to clean.
- f. Toilets have convenient hand-washing facilities close by.
- g. There is a cleaning and maintenance routine in operation that ensures clean and functioning toilets are available at all times.

continued...

6. **Control of vector-borne disease:** Schoolchildren, staff and visitors are protected from disease vectors.¹⁷

Indicators

- a. The density of vectors in the school is minimized.
- b. Schoolchildren and staff are protected from potentially disease-transmitting vectors.
- c. Vectors are prevented from contact with schoolchildren and staff or substances infected with related vector-borne diseases.

7. **Cleaning and waste disposal:** The school environment is kept clean and safe.

Indicators

- a. Classrooms and other teaching areas are regularly cleaned to minimize dust and moulds.
- b. Outside and inside areas are free of sharp objects and other physical hazards.
- c. Solid waste is collected from classrooms and offices daily and disposed of safely.
- d. Wastewater is disposed of quickly and safely.

8. **Food storage and preparation, if applicable:** Food for schoolchildren and staff is stored and prepared so as to minimize the risk of disease transmission.

Indicators

- a. Food handling and preparation are done with utmost cleanliness (hands are washed before preparing food).
- b. Contact between raw foodstuffs and cooked food is avoided.
- c. Food is cooked thoroughly.
- d. Food is kept at safe temperatures.
- e. Safe water and raw ingredients are used.

More information on WASH in Schools facilities can be found in:

- Adams, J. et al, *Water, Sanitation and Hygiene Standards for Schools in Low-cost Settings*, World Health Organization, Geneva, Switzerland, 2009.
- Government of India and United Nations Children's Fund New Delhi, *An Inclusive Approach for School Sanitation & Hygiene Education: Strategy, norms & designs*, Government of India and UNICEF New Delhi, New Delhi, India, 2008.
- Zomerplaag, Jaap and Annemarieke Mooijman, 'Child-friendly Hygiene and Sanitation Facilities in Schools: Indispensable to effective hygiene education', IRC International Water and Sanitation Centre and UNICEF, the Netherlands and New York, 2005.

4

CHILD PARTICIPATION AND HYGIENE EDUCATION

Ensuring children are healthy and able to learn is an essential part of child-friendly schools. This section focuses on teaching children how to prevent diarrhoeal diseases and other waterborne and sanitation-related illnesses. The widespread adoption of safe hygiene practices through an interactive, child-centred, participatory approach builds life skills and empowers schoolchildren to make good choices. It begins with, and is built upon, what local people know, want and do.

Good education about hygiene is as important as good sanitary facilities. Life skills-based hygiene education allows children to learn about water and sanitation-related behaviours and the reasons why these lead to good health or bad health. The idea is that when children understand and think together about their situations and practices, they can plan and act to prevent diseases, now and in the future.

This section focuses on:

- a. Life skills-based hygiene education;
- b. Hygiene practices that give the greatest health benefits;
- c. The two most commonly used ways to teach about hygiene, practiced simultaneously in most settings for greatest impact:
 - Participatory education through teachers in school;
 - Children's involvement in youth hygiene clubs within and outside the school.

Life skills-based hygiene education

Effective hygiene education for children is not just teaching facts about health risks and bad hygiene practices. The life skills approach focuses on changing children's hygiene behaviour and the hygiene behaviour of their families and wider community with a view to improving their quality of life.¹⁸ To ensure that all aspects of appropriate hygiene behaviours are addressed, hygiene education focuses on the development of:

- a. Knowledge and understanding of practical and theoretical information on hygiene. For example, all children know that illnesses like diarrhoea and worm infections result from poor hygiene practices such as not washing hands with soap after visiting a toilet.



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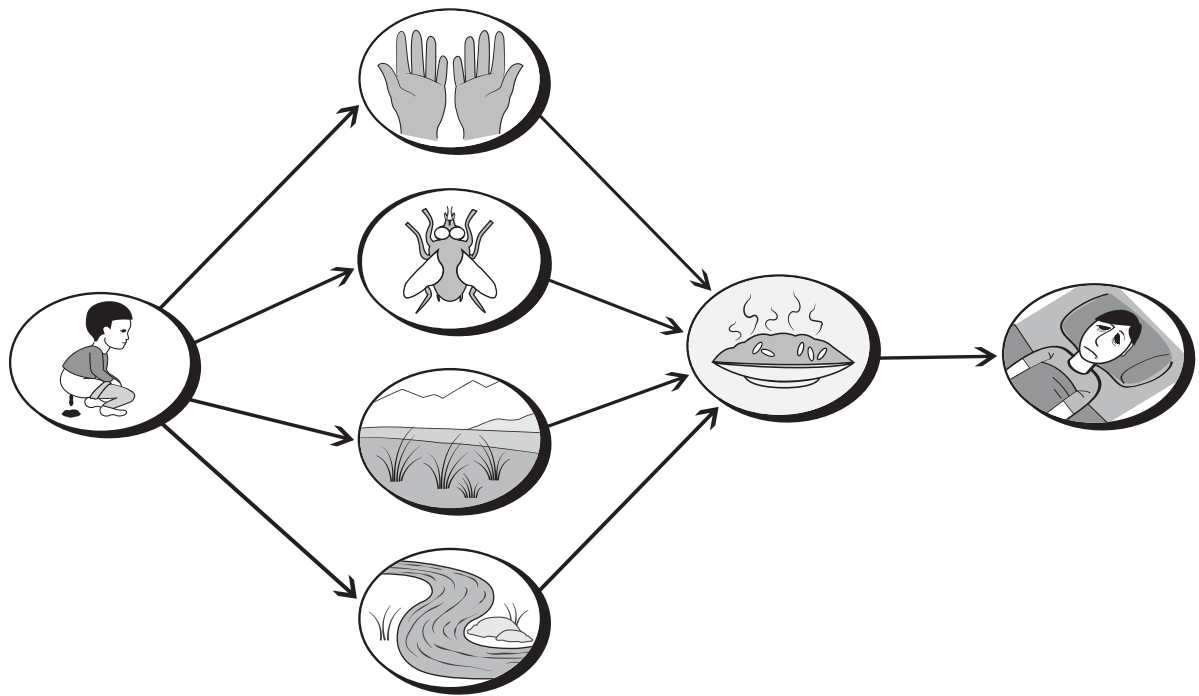
- b. Attitudes and personal opinions about hygiene that influence actions and responses to unhygienic situations. For example, children want to be clean and healthy. Older children feel responsible and confident to help others, particularly younger children, practice good hygiene.
- c. Practical skills to carry out specific hygiene behaviours. For example, children wash hands to prevent illness and infection. They avoid contamination with solid waste and help bury or burn it.

Key hygiene behaviours

Teaching hygiene behaviour is most successful when it focuses on a limited number of behaviours with the biggest overall health impact. Changing a single behaviour can make an enormous difference.

An example of promoting hygiene behaviour that stresses a particular action and its effects is the sanitation- and hygiene-related *F-diagram*.¹⁹ The F-diagram shows the path by which germs can spread from person to person.

F-DIAGRAM



Based on the F-diagram and through scientific research and field testing, the following key hygiene behaviours have been identified as having the most impact on school-age children. They are the easiest to change at the lowest costs, although they may vary slightly in different settings.

KEY HYGIENE BEHAVIOURS FOR SCHOOLCHILDREN

Learning goals for life skills to be developed

	Knowledge	Attitudes	Practices
Safe use of toilets and urinals: Diarrhoea and worm infections are two main health concerns that affect people on a large scale and can be improved through appropriate toilet and urinal use.	Exposed excreta are the leading cause of spreading diseases and making people sick. Behaviours can lead to worm infections.	Children recognize the importance of safe use of toilets and urinals, including the safe disposal of faeces and hygienic anal cleansing followed by washing hands with soap.	Children practice the safe use of toilets and urinals, including the safe disposal of faeces and hygienic anal cleansing followed by washing hands with soap. Depending on age, children maintain and operate school toilets and urinals.
Personal hygiene: Many diseases can be attributed to poor personal hygiene.	Personal hygiene impacts diseases.	Children understand appropriate personal hygiene: washing hands with soap (<i>see separate point</i>), wearing shoes or slippers, cutting nails, brushing teeth, combing hair and the regular washing of body and hair.	At all times, children wash hands with soap, wear shoes or slippers, cut nails, brush teeth, comb hair and regularly wash the body and hair.
Hand washing with soap: Hand washing at critical moments reduces the risk of diarrhoeal diseases by 42-48 per cent and significantly reduces the incidence of acute respiratory diseases.	Hand washing with soap drastically reduces diarrhoeal diseases and acute respiratory diseases.	Children understand the importance of hand washing with soap after toilet use, before and after eating, before preparing food and after cleaning babies.	Hands are washed with soap after toilet use, before and after eating, before preparing food and after cleaning babies.
Female and male hygiene (for adolescents): Genital and menstrual hygiene is important for the health condition of women and reproductive health in general.	Menstrual blood is not dirty, unhygienic or unclean. It is simply blood and tissue sloughed from the lining of the uterus. The odour during menstruation is caused by bad hygiene of the genitals. The symptoms of bladder and kidney infections must be recognized and treated.	Both men and women see the importance of washing the genitals daily with mild soap and water. During menstruation, women use sterile pads and wipe genitals from front to back after defecation.	Both men and women wash the genitals daily with mild soap and water. During menstruation, women use sterile pads and wipe genitals from front to back after defecation.

continued...

	Knowledge	Attitudes	Practices
Waste management and water drainage: Appropriate handling of solid waste and stagnant water helps in pest control and limits breeding mosquitoes and flies.	There are health risks in the non-collection of solid waste and in standing water.	Children link collection and treatment of solid waste with overall health risks. They understand the relationship between standing water and insect breeding.	Solid waste is collected and treated; standing water is drained.
Water treatment, handling and storage: Through testing and treatment, water can be made safe from faecal or chemical contamination.	Where possible, communities should collect water from a safe source and store it safely. If the source is not safe, water must be treated through boiling, filtering, solar or chemical disinfection.	Communities understand the necessity of treating unsafe water through boiling, filtering, solar or chemical disinfection	If the source is not safe, children always treat the water through boiling, filtering, solar or chemical disinfection. Boiling is too dangerous for younger children.
Food hygiene: Eating healthy food is essential for the well-being and survival of each human being. Eating 'contaminated' food (also known as 'food poisoning') can be a significant source of diarrhoeal diseases.	Food hygiene and diseases are linked. Food should be stored appropriately. There are recognizable signs when food is spoiled.	Children know how to store food appropriately and recognize common signs of spoiled food.	Raw fruits and vegetables and raw meat, poultry or fish are treated and stored appropriately.
Sometimes hygiene education that focuses on WASH-related issues will be part of the wider context of health education or environmental education. In that case, issues such as malaria, HIV and AIDS, nutrition, reproductive health, environmental protection, disaster risk reduction and climate change will also be addressed.			

Child participation

Child participation is a precondition for the success of any WASH in Schools intervention. Generally teachers in primary and secondary school have been trained in traditional classroom teaching approaches, in which there is little room for active participation by the students. While class instruction has its place, children greatly enjoy and benefit from more participatory learning methods. These methods actively involve children in the learning process and allow them to learn from their actions and their classmates.

Developing appropriate hygiene behaviour is greatly enhanced by allowing children to fully participate. In this way, children:

- Learn and adopt new concepts and skills quicker.
- Acquire useful knowledge from participating in environmental activities.
- Are a source of creativity, energy, initiative, dynamism and social renewal.
- Contribute meaningfully to environmental restoration and protection in their communities.

- Are forceful advocates who carry healthy lifestyle messages home and to their community.

In this context, child participation can be achieved in two ways:

- Through participatory teaching methods used by teachers or through special hygiene teachers in school, during school hours as part of the regular curriculum (generally a more sustainable approach);
- Through special youth hygiene clubs within and outside the school. Not part of the official curriculum, these clubs depend more on the motivation and enthusiasm of individuals and are thus less sustainable.

Participatory teaching methods can be used with the whole group or with several smaller groups. Working with a whole class is best when introducing a method in which students give each other positive feedback. Working in small groups is only possible if classes are not too big or when more than one teacher or support-teacher is available. Small group activities are recommended when every student needs to participate more than once or if a method requires a longer time frame to allow each individual

to practice. Use of small groups gives every student a chance to fully participate and encourages their contributions and exchanges of opinion. At the same time, the group work helps children to develop cooperation and teamwork skills.

Youth hygiene clubs get schoolchildren actively involved as advocates for a healthy and hygienic school and community. In the clubs, they learn appropriate hygiene behaviour and can train as peer educators and as overseers of hygienic conditions in the school and schoolyard. Clubs also allow teachers to experiment without the constraints of a classroom. They can take the children into the community and work in smaller groups.

Successful models for setting up youth hygiene clubs include:

- In-school health clubs run in conjunction with other school clubs and teacher-led groups.
- After-school health clubs operated in the school after class with external input, such as from community health workers or NGO staff.

What is participatory teaching and what is not?²⁰

It is:

- Encouraging children to think and be creative.
- Helping children to make their own decisions and to make hygiene actions interesting and fun.

It is not:

- Deciding on behalf of the children what action to take.
- Deciding on behalf of the children who will be involved.
- Dull and boring.

- Community health clubs set up and organized by community workers in cooperation with the children. Available for schoolchildren and children who do not go to school, but run as a separate structure in the same way as other organizations, such as Scouts groups. The children act as peer educators.
- Peer group health clubs established and organized by adults, with programming run by peer educators who lead group activities.

While participatory education and youth hygiene clubs are mainly set up for hygiene education, programme experiences have identified other ways to encourage child participation, including:

- Involving children during the design and rehabilitation process of school facilities. Children have different views of the world than adults and therefore experience the use of facilities differently. They can be frightened in situations that adults consider safe. Eliciting children's views and asking them to jointly examine appropriate and acceptable solutions will increase the success of the programme.
- Allowing members of youth hygiene clubs or adolescent schoolchildren to participate actively in meetings, workshops and assessments to monitor and evaluate the programme.
- Inviting adolescent children to make drawings for new training materials adapted to their local conditions.

More examples of life skills development and lesson plans for participatory education on WASH can be found in:

- Child-to-Child Trust, Children for Health: *Children as partners in health promotion*, Macmillan Caribbean, Oxford, UK, 2005.
- Khamal, S., et al., 'The Joy of Learning: Participatory lessons plans on hygiene, sanitation, water, health and the environment', IRC International Water and Sanitation Centre, Delft, the Netherlands, 2005.
- Postma, Leonie, Renate Getkate, and Christine van Wijk, 'Life Skills-Based Hygiene Education: A guidance document on concepts, developments and experiences with life skills-based hygiene education in school sanitation and hygiene, education programmes', IRC International Water and Sanitation Centre, Delft, the Netherlands, in cooperation with UNICEF, 2004.
- World Health Organization, 'Skills for Health: Skills-based health education including life skills – An important component of a Child-Friendly/Health-Promoting School', WHO's Information Series on School Health, Document 9, WHO, Geneva, 2003.

5

LINKAGE WITH COMMUNITY

Involving parents and community

Parents and community members can have important roles in keeping the school clean, safe and healthy, and encouraging children to adopt improved hygienic behaviour. Roles for local committees, parents and communities include:

- a. *Key partners during planning and implementation.* Parents and community members often provide unskilled labour and local construction materials to build school facilities. Involving them in planning can lead to a sense of ownership among the parents and community members. The community can make decisions and arrangements, for example, on community use of the school water tank or toilets if facilities are not available at the household level. To obtain commitment and consensus from the entire community, the local committee should report their findings and decisions to the community as a whole. The committee should equally represent men and women, ethnic groups and social classes to ensure a balanced view.
- b. *Financial controllers and fund holders.* If parental contribution is required for maintenance, cleaning staff, and supplies of soap and cleaning material, the parents can oversee the funds through the parent-teacher association to overcome any distrust when they must give payments to the school. Contributions may be provided as goods, such as one bar of soap or bottle of cleaning liquid brought annually by each child to the school.
- c. *Overseers of operation and maintenance.* In most communities, boards are responsible for the operation and management of water systems and sometimes of communal toilets. Involving them from the start can help them incorporate the school facilities into their overall work. The schoolchildren or special staff can be assigned to clean the toilets.
- d. *Community-based monitors.* The community and the school have many advantages in monitoring the facilities. They will quickly know and report needed repairs and can motivate facility users by sharing the positive impact of interventions as measured by objective criteria. Information can be shared at all levels, including: the communities and schools and their specific groups, such as girls and women; local education and health authorities; programme staff and management; and programme advisers.
- e. *Coordinators of facility use during emergencies.* In many parts of the world, school buildings are used as temporary shelters for affected community members during emergencies. Adequate, well-maintained WASH facilities in schools allow for appropriate hygiene practices in times of emergency and can drastically reduce the risk and spread of infectious diseases. These efforts must be coordinated with the school, community or water board as part of the overall vision of emergency preparedness. The primary aim is to have schools open and functioning during emergencies.

- f. *Target groups for educational activities.* Parental and community involvement ensures that what is learned in school is applied at home, particularly for younger children who are not in a position to change hygienic behaviour in their homes without their parents' commitment. Therefore, it is imperative to educate all family members on the adoption of appropriate hygiene skills and get the surrounding community

involved in programmes for hygiene, sanitation and water in schools. To avoid confusion, the initiative should involve parents in the content of the hygiene education for their young children and urge them to reinforce the learned behaviours at home. This is especially important so the content matches the community ethos and avoids cultural taboos.

Community hygiene promotion

Depending on the characteristics of the intended community (urban-rural, ethnic groups, social classes, etc.) and the available budget, several options for hygiene promotion activities exist. The main hygiene promotion options for parents and community are: hygiene education,

mass media campaigns such as Global Handwashing Day, child-led education of their families and peers, participatory hygiene promotion such as Participatory Hygiene and Sanitation Transformation (PHAST) or Community-led Total Sanitation and social marketing.

GLOBAL HANDWASHING DAY: IN SCHOOLS AND COMMUNITIES



Global Handwashing Day
October 15

Initiated in 2008 by the Global Public-Private Partnership for Handwashing with Soap, Global Handwashing Day on the 15th of October is endorsed by a wide array of governments, international institutions, civil society organizations, NGOs, private companies and individuals.

The objectives of this day are to:

- Foster and support a global and local culture of hand washing with soap;
- Spotlight the state of hand washing in each country;
- Raise awareness about the benefits of hand washing with soap.

Resources, such as a planning matrix, hand-washing videos and events guides, are available at the official Global Handwashing Day website:
<http://www.globalhandwashingday.org/>.

How can children pass on their hygiene knowledge to peers, family and community?

- a. Spread the knowledge they have learned in school by talking with friends and parents about their hygiene lessons.
- b. Teach by example, washing their hands with soap at critical times.
- c. Work together to spread ideas and take action in the community, for example organizing clean-up days.

Water and sanitation provision in the community

If a safe water point or toilets are provided in schools, the community must also have access to safe water or toilets. If the community is allowed to use the water source provided for schools, formal arrangements between the community and school should govern its usage. A system can be established for managing the water point and selling water to the community at an affordable price. The income can support maintenance and operation and other school hygiene needs such as soaps and cleaning materials.

PHAST IN COMMUNITIES

It is difficult to change behaviour. Change best occurs through the use of participatory methods. Such methods enhance self-discovery and ownership in planning for improvements. They have been proven successful when traditional teaching strategies have failed. They are based on human behavioural science, adult education and field-testing.

Field experience has shown that participatory methods can lead to far more rewarding experiences for the hygiene educator or health worker. Case studies have illustrated that once participatory methods are tried, they are found to be worthwhile and teachers and students do not want to return to earlier methods.

Developed by WHO in the early 1990s, PHAST is an approach that promotes hygiene, sanitation and community management of water and sanitation facilities. It is an adaptation of the Self-esteem, Associative strength, Resourcefulness, Action planning and Responsibility (SARAR) methodology of participatory learning, which builds on people's innate ability to address and resolve their own problems. It aims to empower communities to manage their water and to control sanitation-related diseases, and it does so by promoting health awareness and understanding, which in turn, leads to environmental and behavioural improvements.

PHAST uses methods and materials that encourage the participation of women, men and children in the development process. It relies heavily on the training of extension workers and the development of graphic arts materials (in sets that are called 'tools kits'), which are adapted to reflect the cultural and physical characteristics of communities in a particular area. The production of PHAST materials requires trained artists and trained extension workers.

6

TEACHERS, SCHOOL MANAGERS AND TRAINING

Motivating teachers and school managers

For WASH in Schools programmes to be sustainable and successful requires the involvement and buy-in of teachers and school managers. Most schools have some type of health or hygiene education as part of their regular curriculum and teachers have been trained in those programmes. Developments should build upon the knowledge that exists. An important focus of teacher training should be attitude change towards WASH in Schools. This can be done by:

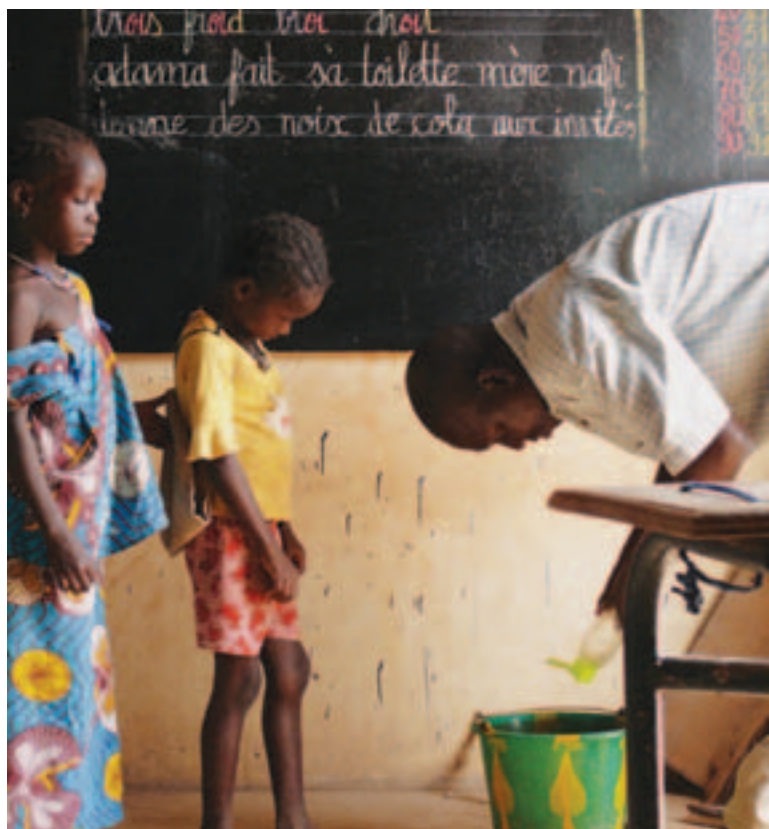
- a. Explaining that this programme is not another subject in school but a life skill used by children at school, at home and in the community to improve their overall health and hygienic living conditions.
- b. Understanding that children do not only receive information but also actively promote good health and hygiene.

Currently, most WASH in Schools interventions are established as a programme approach, with teachers trained by NGOs or agencies, often in coordination with ministries of education. Teaching materials are made available by the programme. Some larger-scale initiatives use a training-of-trainers approach, training one or two teachers per school who are expected to pass this information to their colleagues. This approach may not be sustainable, however, as trained teachers can leave the school or simply not have time or motivation to train other teachers.

Hence, it is important for WASH to become a subject in teacher training colleges and in school curricula.

Training teachers

In many countries, national engagement of WASH in Schools has led to specific hygiene education subjects in national teacher training institutes. As WASH in Schools becomes integral in national curricula, large-scale, in-service teacher training will be required. Teacher education and training must focus on both the content and the method for presenting WASH in Schools.



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Teaching methods that can be used for hygiene education:²¹

Methods suitable for children aged 6–8 years	Methods suitable for children aged 8–11 years	Methods suitable for children aged 12–15 years
<p>Listening to, reading and telling stories;</p> <p>Reciting poems and singing songs;</p> <p>Performing drama/short role plays;</p> <p>Watching and participating in various types of puppet plays;</p> <p>Simple sorting games;</p> <p>Language and number games and assignments;</p> <p>Walks, simple observations;</p> <p>Skills demonstrations with peer observation and analysis;</p> <p>Movement games, competitions;</p> <p>Conversations and discussions;</p> <p>Drawing, painting, colouring, playing with clay;</p> <p>Doing simple hygiene tasks;</p> <p>Presentation to parents and family members.</p>	<p>Listening to, reading and analyzing, and telling stories;</p> <p>Quizzes;</p> <p>Conversations and discussions;</p> <p>Singing and dancing;</p> <p>Drawing and painting;</p> <p>Making various types of models;</p> <p>Compositions and creative writing;</p> <p>Brainstorming;</p> <p>Excursions;</p> <p>Performing dramas, role playing, pantomime, skills demonstrations;</p> <p>Peer observations and analysis;</p> <p>Language and maths games, such as crosswords;</p> <p>Competitions.</p>	<p>Listening to, reading and telling stories;</p> <p>Analyzing and writing stories;</p> <p>Group and class discussions;</p> <p>Singing and dancing;</p> <p>Drawing and painting;</p> <p>Brainstorming;</p> <p>Performing dramas, role playing, pantomime, skills demonstrations;</p> <p>Peer and family members' observations and analysis of behaviour;</p> <p>School/community observation and mapping or excursions;</p> <p>Language and maths games, quizzes and puzzles;</p> <p>Competitions;</p> <p>Doing hygiene tasks with an educational purpose such as helping younger children visit toilets and wash hands.</p>

Further key points for teaching methodology include the need to:

- Integrate hygiene education into the curriculum;
- Practice multi-purpose learning by combining hygiene education with basic education skills such as reading, writing, arithmetic and geography;
- Adapt methodology to the local culture and socioeconomic circumstances and focus on gender equity;
- Reach out to homes and communities;
- Ensure there is enough reasonably priced teaching material for all teachers and students;
- Monitor and evaluate conditions, practices and progress;
- Practice learning in school and base education on real hygiene needs and priorities of the communities in which the children live;
- Adjust education to the child-development phase and age group.

7

EVIDENCE AND ADVOCACY

The relevance and importance of WASH in Schools is based on solid research. This section highlights studies related to: 1) the impact of WASH in Schools on health and learning, 2) household tasks related to WASH, 3) needs of adolescent girls and 4) long-term impact. The studies can provide information needed by policy- and decision-makers to make informed decisions when allocating resources for WASH in Schools. They can also encourage local academia to build on these studies and gain further knowledge about the importance of WASH in Schools programming.

Impact on health and learning

Learning, hygiene and health are interlinked. Schools are where children spend most of their time. In bad hygienic conditions, children are exposed to diseases and risk infection. There is a direct link between diarrhoea and hygiene in schools. Children can carry infectious agents from childcare settings and schools into the home, causing other household members to become infected.

WASH in Schools focuses generally on diarrhoeal and worm infections. These are the two main diseases that affect school-aged children and can be drastically reduced through improved water, sanitation and hygiene in schools.²²

The causes of diarrhoea include a wide array of viruses, bacteria and parasites. Diarrhoeal disease affects far more individuals than any other illness. Eighty-eight per cent of diarrhoeal disease is caused by unsafe water supply, inadequate sanitation and hygiene.²³

Diarrhoea is a significant reason why children are absent from school. A recent campaign promoting hand washing with soap in 30 primary schools in Egypt reduced diarrhoea-related absenteeism by 30 per cent.²⁴ Similar results have been found in China and Colombia.²⁵ Each of these studies also demonstrated a significant reduction in absenteeism related to respiratory-illness as a result of improved hand hygiene.

Diarrhoea is also behind chronic undernutrition and growth retardation.²⁶ Diarrhoeal episodes exacerbate the relationship between malnutrition and infection, as children tend to eat less and can absorb fewer nutrients. Each episode contributes to malnutrition, reduced resistance to infections and, when prolonged, to impaired growth and development.²⁷

A study in Brazil followed 73 Brazilian children to assess their school performance.²⁸ This study showed a relationship between the effects of early childhood diarrhoea on later school readiness and school performance, revealing the potential long-term human and economic costs of early childhood diarrhoea.

Intestinal worm infections including hookworm, whipworm, roundworm and schistosomiasis affect roughly one in four people around the world. Worm infections are spread through unhygienic environments in soil or water and unhygienic behaviour via food or hands. School-aged children have the highest infection prevalence of any

group; an estimated 47 per cent of children ages 5–9 in the developing world suffer from a worm infection.²⁹ Such diseases are thought to be entirely attributable to inadequate sanitation and hygiene.³⁰

Worms are easily spread among groups of children because they play together, touch each other, visit the toilet and often do not wash hands with soap afterwards. Worms are one of the most important causes of physical and intellectual growth retardation.³¹

The impact of worm reduction programmes in schools has been remarkable. In Kenya, for example, treatment reduced absenteeism by one quarter, with the largest gains for the youngest children who suffered the most ill health.³²

Improving sanitation facilities has also been associated with a reduction in gastrointestinal illness. Research found a reduction of 34 per cent across 12 studies in developing countries.³³ Washing hands with soap is another important barrier to transmission and has been cited as one of the most cost-effective public health interventions.³⁴ Hand washing with soap can reduce the incidence of diarrhoeal disease by 42 to 48 per cent.³⁵ Interventions to improve water quality at the source, along with treatment and safe storage systems at the point of use, reduce diarrhoea incidence by as much as 17 per cent.³⁶

The above statistics demonstrate the importance of promoting hand washing with soap among children and their caregivers, balancing technical solutions on water and sanitation provision, and promoting appropriate hygiene behaviour.



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Household tasks related to WASH

Many children arrive late to school because they must walk long distances in order to fetch water. The responsibility of fetching water often falls to girls. When teachers send children for water, girls are often selected for the task, depending on the country and cultural setting. When family members become sick, often due to water- and sanitation-related diseases, girls are more likely to be kept from school to help.

A study in Ghana shows a significant relationship between water-hauling time and girls' school attendance.³⁷ A 15-minute reduction in collection time increases the proportion of girls attending school by 8 to 12 per cent. The impact of hauling time on school attendance is stronger above a 30-minute round trip.

School-based studies have demonstrated potential for influencing hand-washing behaviour through membership in safe water clubs, peer-to-peer teaching,

LACK OF HAND WASHING IN PRIMARY SCHOOLS

- In Kenya, an evaluation of WASH in Schools reports that only 5 out of 100 schools had soap available for children. Less than 2 per cent of children (only 21 out of 951) were observed to wash their hands with soap.³⁸
- An evaluation conducted in India shows that hand washing before eating in school was far more frequent in districts with UNICEF-supported WASH in School programmes than in control districts. However, soap was seldom used when washing hands (2 per cent or less of the children), which seriously compromised the effectiveness of hand washing.³⁹
- A six-country evaluation of WASH in Schools pilot programmes in Burkina Faso, Colombia, Nepal, Nicaragua, Vietnam and Zambia found the availability of soap to be a major problem in most schools. “This jeopardizes the educational effort promoting the use of soap and results in a low proportion of students washing hands with soap. Soap is not available for various reasons such as for fear of it getting stolen or because it is too expensive for the school to buy.”⁴⁰

classroom sessions with focused training materials and role-playing or songs.⁴¹ These studies demonstrate that while teachers can successfully transfer knowledge to students, educated students can also influence family members by sharing this information, which may in turn affect behaviour change at the community level.⁴² Three community studies also found that students played a major role in hand-washing education.⁴³

Needs of adolescent girls

Increasingly, evidence has shown that the absence of toilets or separate toilets in schools for girls is a major reason parents keep their daughters from attending school.⁴⁴ Adolescent girls attending school during menstruation require girl-appropriate toilets, water supply for washing and receptacles for discarded

sanitary pads.⁴⁵ Without appropriate facilities, adolescent girls may be unable to remain comfortably in class.

Although scientific evidence on the subject is limited, girls often mention the lack of sanitary protection during menstruation as a barrier to their regular attendance in school. Staying at home might also be motivated by religious and cultural beliefs and habits. Many girls and young women prefer to stay home, where they do not need to worry as much about sanitary protection or adequately concealing clothing. Absence from school several days a month, amounting to 10–20 per cent of all school days, can be detrimental to a girl’s learning and academic performance. Eventually this absenteeism can lead her to drop out completely.



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Girls' absence from school also has an economic impact. Research shows that for every 10 per cent increase in female literacy, a country's economy grows by 0.3 per cent.⁴⁶ Educated women are more likely to raise healthy, well-nourished, educated children, protect themselves from exploitation and AIDS and develop skills to contribute to their societies.

Another unmet need is that school curricula typically do not cover the topic of menstruation and puberty in a girl-friendly way. The treatment of the subject fails to help girls understand the changes in their maturing bodies. Many biology textbooks, for instance, contain sexless figures and make no reference to feminine and menstrual hygiene, male hygiene, body awareness, the maturation process or changes during puberty. Girls and boys are left ignorant of their bodies.

Long-term impacts

A study on the long-term effect of community hygiene education programmes for both adults and children found that new behaviours do not fade as years go by.⁴⁷ People do not revert to earlier, less hygienic practices. On the contrary, data indicate that hygiene behaviours are sustained beyond the end of an intervention. For five countries, 25 comparisons were made between hygiene behaviour and the end date of the programme. The results showed that even where the programme had ended seven or nine years before the survey, about four out of five or 80 per cent of the women were still consistently using their latrines.

Researchers presume that hand washing, like tooth brushing, occurs as part of daily routines and that these routines are often established in childhood.⁴⁸ Therefore, schools are ideal settings for hygiene education, where children can learn and sustain lifelong adequate hygiene practices.

8

MONITORING AND EVALUATION

Why monitor and evaluate

When properly designed and used, a monitoring and evaluation system allows people to determine whether the implementation of a programme is facilitating achievement of its goals; when it is necessary to redirect the implementation approach; how the country environment is affecting operational outcomes and outputs; and what other aspects may support decision-making and project management.

Monitoring should be an ongoing activity in WASH in Schools programmes. Far more than collecting information to 'see how things are going', properly designed monitoring and evaluation systems can serve the multiple purposes of:

- Advocating, influencing or persuading a decision-making or funding body to increase attention and resources to WASH in Schools, change a policy or law or agree to strengthen the overall WASH sector.
- Strategic planning and financial resource allocation to diagnose and direct interventions. Monitoring can help decision-makers and planners in government, donor organizations and civil society decide how best to focus investments, technical assistance and other interventions within WASH in Schools.
- Programming to design, manage and evaluate interventions:
 - To guide choices on approaches, technologies and methodologies to

maximize effectiveness in meeting specific WASH in Schools goals (Programme Design).

- To permit managers of specific programmes to track the efficiency and effectiveness of the programme and assess whether its administration has proceeded according to what was planned – not evaluating whether the underlying programme design was valid or effective (Programme Management).
- To allow for a periodic, objective look at overall programme or project progress and results, analyze the reasons for success and failure and make recommendations for future development (Programme Evaluation).



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- Ensuring external accountability to schools, teachers, children, decision-makers and donors; monitoring how resources are spent and benefits distributed; conducting quality control on programmes; evaluating cost-effectiveness of investments; tracking ecological and financial sustainability; and assessing overall aid effectiveness.
- Learning to move forward, to capture and share the considerable experience and contributions of all stakeholders in WASH in Schools over wide geography and extended time periods.

Education management information systems (EMIS) and national statistics on WASH in Schools

The availability and functionality of WASH facilities and hygienic practices among schoolchildren should be part of an education management information system (EMIS), rather than a component of the monitoring and evaluation system. Including WASH in Schools in the EMIS gives clearer insight into the existing educational problems and challenges such as the possible link between WASH and school attendance and retention.

Housed within a ministry of education, EMIS is designed to systematically collect, process, analyze and publish information related to educational development. Data analyzed at EMIS can provide information and evidence for planning, implementation and decision-making. It is also an important resource for measuring the performance of an education system and identifying weaknesses and strengths of staffing, students, schools and facilities.

Many countries have established EMIS systems, often with technical and financial support from international donors and development banks.

Although many EMIS have recently included WASH, there is still little statistical information available on WASH in Schools facilities. In 2008, in the 60 countries where UNICEF had a priority for WASH interventions, only 46 per cent of schools had access to adequate water facilities and 37 per cent to sanitation facilities. These statistics are based on government standards, often lower than desired standards from a hygienic point of view.

How to monitor and evaluate WASH in Schools interventions

Monitoring and evaluation systems in general consist of three components, preferably implemented at national, local and school/community levels: 1) a baseline study before programme implementation; 2) monitoring during implementation; 3) evaluation after implementation.

WASH monitoring is no different. A baseline study, undertaken before the programme is implemented, forms the basis of the programme's monitoring and evaluation system. The monitoring and evaluation system then collects information and compares it with the baseline to assess progress and implement necessary adjustments in WASH in School activities. Monitoring and evaluation systems for WASH in Schools should clearly delineate indicators (measurable against actual situation, planned facilities compared with existing ones, monitoring progress, monitoring maintenance)

and measuring methodology (defining roles and responsibilities). In addition to monitoring WASH in Schools through EMIS and national surveys, regular monitoring through schools should be encouraged.

Monitoring through EMIS

Several questions can be added to the EMIS to facilitate the collection of relevant data and monitoring which then can be used by decision-makers to make informed decisions on WASH in Schools programming. The questions can be grouped as follows: school information, water, sanitation, hygiene, waste disposal, operation and maintenance. *(For sample questions, see page 41.)*

National survey

For a national survey, a more comprehensive set of questions, observations and focus group discussion guidelines should be used. Subnational and thematic surveys should be encouraged.⁴⁹

School-based monitoring

Some examples of monitoring exercises from a UNICEF and Government of India initiative include:⁵⁰

- a. Regular visits to schools by community committees, officials from health and education departments, and members of parent-teacher associations and school management committees.

- b. Regular review meetings at local, municipal, district and regional level.
- c. Visits from health and education departments for quality inspection and review.
- d. Implementation of a progress reporting system.
- e. Production of impact surveys by an independent evaluator.
- f. Documentation of case studies and success stories.

The initiative also recommends school-based participatory monitoring activities involving children and teachers through the use of monitoring charts, mapping, WASH walks, etc.



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BOX EXAMPLE OF EMIS QUESTIONNAIRE*

Part 1: Water

Indicator (core questions): A functional water point is available at or near the school.

Indicator (core plus expanded questions): A functional water point is available at or near the school that provides a sufficient quantity of water for the needs of school, is safe for drinking, and is accessible to children with disabilities.

Core Questions

Question 1: What is the school's main water source? (check one)

(These definitions should be modified and simplified in each country.)

Piped water into school building	
Piped water to school yard/plot	
Public tap/standpipe	
Tubewell/borehole	
Protected dug well	
Unprotected dug well	
Protected spring	
Unprotected spring	
Rainwater collection	
Bottled water	
Cart with small tank/drum	
Tanker-truck	
Surface water (river, dam, lake, pond, stream, canal, irrigation channels)	
No water available in or near school	
Other	

Question 2: Is it functional now? (check one)

Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
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Expanded Questions

Question 3: Is there enough water for the school? (Check one)

Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
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Question 4: Is water treated before drinking? (Check one)

Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
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Question 5: Are water facilities accessible to children with disabilities? (Check one)

Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
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* For more indicators on WASH in Schools please refer to UNICEF East Asia Pacific Regional Office's WASH in Schools Monitoring Package.

9

SCALING UP

Financial sustainability, the development of political interest, cooperation among ministries, a national policy on WASH in Schools in the overall strategy for quality education, and national policies and standards in related sectors are necessary to scale up WASH in Schools. The ultimate goal of any WASH in Schools intervention is its long-term sustainability and mainstreaming into the system.

To achieve scale-up, an accountable institution, preferably the ministry of education, must take the lead on WASH in Schools and ensure the involvement of all related ministries, such as health, public works, finance, local governance and water authorities. Political commitment to children's education and health creates an environment that is conducive to the implementation, operation and maintenance of WASH in Schools programmes and enables small-scale pilot projects to scale up effectively.

Without political commitment and the resulting favourable policies and budgets, WASH in Schools programmes remain externally-subsidized, small-scale interventions, which never grow beyond the pilot phase. In low-income countries, UNICEF, donor agencies, NGOs or others may provide investment costs, but the government and community should always cover operation, maintenance and replacement costs of educational materials and facilities.

Financial sustainability

From their inception, WASH in Schools programmes need a financial policy that ensures long-term sustainability. Clear national financial policies can help underpin a more efficient, equitable and sustainable use of resources through the promotion of cost recovery and government partners' financing. If a national cost-recovery policy exists for the water and sanitation sector, it must address cost recovery for projects in school settings as well.

With input from the ministry of health and other WASH-related ministries, the ministry of education will need to set specific financial policies for WASH in Schools. The ministry of education will also need to define the cost-sharing arrangements, if any, among national authorities, local authorities, communities, schools, children, teachers and parents.

In addition, local authorities must help develop mechanisms for financing replacement costs and variable costs, such as soap, other supplies, operation and maintenance. In many cases, schools, parents, the community or local enterprises will cover those costs, but local authorities must make sure they are accounted for. So far, many programmes have had difficulties making the transition from the pilot phase because of capacity problems and the lack of financial planning and management.

The lack of reliable data on WASH in Schools is one barrier to securing the rights of children. No global database exists on the availability and status of basic facilities for school water supply and sanitation. UNICEF is attempting to collect available information from countries where it supports school sanitation interventions. It is therefore only possible to prepare rough estimates of WASH in School needs, based largely on the following assumptions:

1. There are approximately 600 million children of primary school age in the developing world.⁵¹
2. In many developing countries, only about half of all primary schools have water supply and only one third have sanitation.⁵²
3. Experiences in various countries show an average cost for school sanitation and hygiene education of about USD\$20 per student.⁵³
4. Of this, \$10 would be for water supply, \$8 for sanitation and \$2 for hygiene education, with the cost of capacity building, monitoring, advocacy, social mobilization, etc., included in these 'per student' costs.⁵⁴

The estimate of global needs based on these figures are:

School water supply	300 million children @ \$10	\$3.0 billion
School sanitation	400 million children @ \$8	\$3.2 billion
Hygiene education	600 million children @ \$2	\$1.2 billion

Total estimated cost: \$7.4 billion

An effective financial policy is built upon six basic design principles:⁵⁵

1. The total projected cost for WASH in Schools must include hardware investment costs as well as software costs. The calculation should be based on the most current information and updated regularly to keep abreast of actual costs, taking into account project sustainability and costs that are being recovered from users.

Calculations should include:

Initial capital costs

- i. Constructing, rehabilitating or improving facilities
- ii. Developing methodologies and materials for hygiene education
- iii. Training teachers
- iv. Management training for education administrators
- v. Developing and producing teaching materials
- vi. Additional costs for structures such as rainwater harvesting or school gardens.

Recurring costs

- i. Fixed costs
 - Loan repayments
 - Wages for specialized operational and maintenance staff

ii. Variable costs

- Soap for hand washing and cleaning of facilities, material for anal cleansing and drying of hands after washing
- Chemicals or fuel for water treatment and/or boiling of water

Replacement costs

- i. Spare parts and/or replacement parts that may be needed, depending on the technology being used.
2. Software costs must be considered, including expenditures for teacher training, educational programmes, environmental management training and project supervision, follow-up and support. These should be thought of as part of an overall school improvement programme. It is recommended that costs for sanitary, hand-washing and water facilities are the responsibility of the government, as administered through the ministry of education.
3. Local contributions to investment costs should be in proportion to the level of service offered at the facility. The school community may pay more, for example, when the selected solution is more expensive. This policy will enable the school community to make a meaningful choice between service level options. Experience has shown that subsidizing all service levels can lead to opting for inappropriately expensive facilities, which creates unmanageable expectations that cannot

be replicated or scaled up (unless state or government provisions allow for operation and maintenance).

4. To ensure sustainability of water supply and sanitation facilities, construction, operation and maintenance costs should be charged through the education budget, since school water supply and sanitation are essential elements of basic education. Possible sources of funding could include donations, school maintenance budgets, contributions from parents or teachers, village or school management committee contributions or income-generating activities.⁵⁶
5. A common financing strategy for the sector will prevent projects and programmes of different agencies and organizations from undermining each other.
6. Financial management and cost-sharing plans should be put in place at the school level. Plans to ensure operation and maintenance of WASH in Schools facilities should be developed before the project is implemented and should include, at minimum, recurring and replacement costs. Cost-recovery mechanisms should be established if resource allocation from school budgets is insufficient. These can include: user fees paid by parents or students; payment-in-kind through the provision of soap, cleaning materials or labour; and income-generating activities such as the sale of surplus water or school garden produce. These mechanisms must not create barriers for poor families to send their children to school.

Enabling policy environment

When setting priorities, national and local governments tend to focus first on large programmes in which their direct interests are at stake. They might be less likely to devote attention to small-scale interventions such as WASH in Schools initiatives, which focus on changing hygiene behaviour, require low-cost investments and fall within the jurisdiction of several stakeholders and service providers.

To create an enabling policy environment for WASH in Schools, advocacy should demonstrate the links between hygiene, education, and water and sanitation services; outline ways in which WASH interventions benefit students, school staff, families, communities and countries; and be grounded in solid evidence.

Potential roles and responsibilities of policymakers

When advocacy activities are successful and policymakers, including politicians and senior civil servants, understand the issues and agree to get involved, their special roles and responsibilities should be delineated. These include:⁵⁷

- a. *Political support and commitment.* Politicians and policymakers play a crucial role in advocating for WASH in Schools as an essential part of an education programme. Acceptance of this perspective requires local decision-making that allows communities and school staff to choose facilities the community can afford to maintain. The success of WASH in Schools will

be assured by sustaining the facilities, using them as intended and developing healthy behaviours. The national and local government, the WASH sector, education personnel and the general public must accept this point.

- b. *Coordination and commitment.* Coordination under the leadership of one accountable ministry – for example, when the ministry of education leads the ministries of WASH, health and finance – can help ensure synchronized approaches and commitment among different departments and specializations. Implementation, identification of needed WASH facilities, construction, training and community involvement must be coordinated. Policymakers can require implementers to follow guidelines.
- c. *Removing obstacles.* Numerous stakeholders, including policymakers and managers, can eliminate hurdles. For example, when financing comes from different sources and becomes complex, policymakers can ease bureaucratic requirements that may hinder or slow down the process.
- d. *Establishing minimum objectives, coverage and standards.* Several stakeholders, including policymakers, help set the minimum objectives, coverage and standards. (*For more information on standards, see Section 3.*) Standards must consider local conditions and cultural demands; one uniform, standard construction plan

or model cannot be relevant in all situations. The design and the decisions about who constructs facilities depend on the situation. For example, small schools in active communities may wish to have all the construction done locally. Schools should have a role in identifying their own designs, taking into account their financial contribution and the overall costs of construction. The least costly solution might be free for a school, for example, while a more advanced technology would require a contribution from the school, parents or community.

The following table summarizes the steps needed to manage and scale up a WASH in Schools programme.⁵⁸



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ESSENTIAL STEPS IN MANAGING WATER, SANITATION AND HYGIENE STANDARDS IN SCHOOLS AT THE NATIONAL, DISTRICT AND LOCAL LEVEL ⁵⁹

Step	National level	District level	Local levels (school and community)
1	Review existing national policies and ensure a national policy framework supportive of improved conditions in schools.	Raise awareness of water, sanitation and hygiene in schools among key stakeholders at the district level.	Mobilize support from teachers, schoolchildren, families and other local stakeholders to achieve and sustain a healthy school environment.
2	Ensure that appropriate national bodies exist for setting and monitoring standards.	Ensure that an appropriate body or service exists at the district level for overseeing compliance with standards. Try to incorporate all entities and organizations working in the district on WASH in Schools.	Create an appropriate body to oversee the implementation of standards in the school.
3	Review national standards and add to them if needed. Establish an effective regulatory framework that encourages and supports compliance.	Ensure that district-level guidance and support for compliance reflects the national regulatory framework. Use appropriate guidelines where standards do not exist.	Define a set of targets, policies and procedures for implementing national standards and/or guidelines in a way that reflects local conditions. Define how targets, policies and procedures will be applied.
4	Provide expertise and resources for assessment and planning at the national level.	Provide expertise and resources for assessment and planning at the district level.	Assess existing conditions; consult local stakeholders including staff and local community; and plan improvements and new developments.
5		Provide locally-appropriate plans and specialist input for new structures and improvements to existing structures.	Plan improvements or new developments required, with specialist technical input if necessary.
6	Promote, provide and/or facilitate funding for national programmes.	Advocate for the allocation of funding for planned improvements and new developments.	Guarantee funding for planned improvements and new developments.
7	Monitor developments at the national level and promote consistent application of standards in all districts.	Ensure oversight of improvements and new developments to confirm the consistent application of appropriate standards in all schools.	Oversee implementation of planned improvements and new developments.
8	Ensure that water, sanitation and hygiene components are adequately reflected in the education management information system (EMIS) at the national level.	Monitor ongoing conditions in all schools and promote remedial action where required.	Monitor ongoing conditions and ensure remedial action where required.
9	Provide training and information materials appropriate to a range of school settings. Ensure appropriate curriculum for teacher training.	Provide appropriate training and information to teachers, school directors and extension agents.	Provide advice and training to staff, schoolchildren and parents.

LINKS

- a. **UNICEF's WASH in Schools site** supports the global effort towards creating a world where all children go to school and all schools provide a safe, healthy and comfortable environment where children grow, learn and thrive. It provides up-to-date information on events, resources and news about water, sanitation and hygiene education in schools and features video interviews with WASH in Schools experts from UNICEF and its partners.
<www.unicef.org/wash/schools/>
- b. **WASH in Schools** – This website has been jointly developed by the IRC International Water and Sanitation Centre and UNICEF. It serves as a discussion forum and an information-exchange platform for sector professionals working in the field of WASH in Schools. The website is also the home of the WASH in Schools Thematic Group and is linked to the Focusing Resources on Effective School Health (FRESH) initiative, a framework developed through a partnership between the United Nations Educational, Scientific and Cultural Organization (UNESCO), UNICEF, the World Health Organization (WHO), and the World Bank.
<www.washinschools.info/>
- c. The **Water Sanitation Programme Toolkit on hygiene, sanitation and water in schools** plugs into sector-specific knowledge of practices and approaches that are likely to yield positive results as they coordinate multi-sector efforts to improve sanitation and hygiene in schools. The toolkit was launched at the World Education Forum in April 2000.
<<http://www.wsp.org/schoolsanitation>>
- d. **The IRC International Water and Sanitation Centre** in Delft, the Netherlands, includes news and information on WASH in Schools, as well as advice, research and training on low-cost water supply and sanitation in developing countries.
<www.irc.nl>
- e. **Schools and Health** provides information on school health, nutrition, education and HIV as it relates to improved learning for school-aged children. Established in 2002 and hosted by the Partnership for Child Development, the site has been endorsed by WHO, Child to Child, UNICEF, UNESCO, the World Bank, the United States Agency for International Development, the Pan American Health Organization, the World Food Programme and Save the Children.
<www.schoolsandhealth.org>
- f. The **FRESH School Health** site encourages those who plan school-based health programmes to use the FRESH approach and to provide those who implement such programmes, in particular teachers and educators, with a set of practical tools for achieving the best results.
<http://portal.unesco.org/education/admin/ev.php?URL_ID=34993&URL_DO=DO_TOPIC&URL_SECTION=201>.

- g. **WHO's Global school health initiative** seeks to mobilize and strengthen health promotion and educational activities at the local, national, regional and global levels. The initiative is designed to improve the health of students, school personnel, families and other members of the community through schools.
<www.who.int/school_youth_health/gshi/en>
- h. **Partnership for Child Development** is an international collaboration based in London to improve the health, nutrition and education of school-aged children. The site contains a document and publication list, articles and links to relevant sites.
<www.child-development.org>
- i. The **Global Public-Private Partnership for Handwashing** is a coalition of international stakeholders whose focus is hand washing and child health. The partnership explicitly focuses on hand washing with soap in the recognition that hygiene, sanitation and water are pillars of development.
<www.globalhandwashing.org>
- j. The World Bank provides a compilation of resources related to **Gender and Development in the Water Supply and Sanitation sector**, including briefing notes, checklists, indicators and terms of reference.
<go.worldbank.org/M9JO8F0XT0>
- k. The Water, Engineering and Development Centre of Loughborough University in the United Kingdom has conducted research on **water supply and sanitation for disabled people and other vulnerable groups**.
<<http://wedc.lboro.ac.uk/research/project.html?p=12>>
- l. The **WASH in Schools Mapping** site captures ongoing WASH in Schools experiences in different countries and provides WASH in Schools professionals with a repository including the latest documents, policies, "how to" guides from the field and more.
<www.washinschoolsmapping.com/index.html>

REFERENCES

- 1 Hutton, Guy and Laurence Haller, *Evaluation of the Costs and Benefits of Water and Sanitation Improvements at the Global Level*, World Health Organization, Geneva, 2004.
- 2 Aga Khan Foundation Team, *Non-State Providers and Public-Private Community Partnerships in Education*, Aga Khan Foundation, 2007, <<http://unesdoc.unesco.org/images/0015/001555/155538e.pdf>>, accessed 28 January 2012.
- 3 Adams, John, et al., *Water, Sanitation and Hygiene Standards for Schools in Low-cost Settings*, World Health Organization, Geneva, 2009.
- 4 See the example of the Global Public-Private Partnership for Handwashing with Soap initiative at <www.globalhandwashing.org>, accessed 31 May 2012.
- 5 See the World Health Organization/United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation at <www.wssinfo.org>, accessed 28 January 2012.
- 6 These are average age ranges, which will differ somewhat for each individual.
- 7 Government of India and United Nations Children's Fund New Delhi, *An Inclusive Approach for School Sanitation & Hygiene Education: Strategy, norms & designs*, Government of India and UNICEF New Delhi, New Delhi, India, 2008.
- 8 Adams, John, et al., *Water, Sanitation and Hygiene Standards for Schools in Low-cost Settings*, World Health Organization, Geneva, 2009.
- 9 This text has been adapted from Kirk, Jackie and Marni Sommer, 'Menstruation and Body Awareness: Linking girls' health with girls' education', in *Gender and Health Special*, Royal Tropical Institute, Amsterdam, 2006.
- 10 Ibid.
- 11 World Health Organization, *World Report on Disability*, WHO, Geneva, 2011, <www.who.int/disabilities/world_report/2011/report/en>, accessed 31 May 2012.
- 12 See examples in Government of India and United Nations Children's Fund New Delhi, 'An Inclusive Approach for School Sanitation & Hygiene Education: Strategy, norms & designs', Government of India and UNICEF New Delhi, New Delhi, India, 2008.
- 13 Rehfuss, Katrin, 'Child Friendly Schools: How children in Sri Lanka learn the importance of safe drinking water', Malteser International, Malta, 2011, <http://www.malteser-international.org/fileadmin/dam/oeffentlich/malteser-international.de/asien/Sri_Lanka/Sri_Lanka_Childfriendly_schools.pdf>, accessed 28 January 2012.
- 14 Adams, John, et al., *Water, Sanitation and Hygiene Standards for Schools in Low-cost Settings*, World Health Organization, Geneva, 2009.
- 15 More indicators for boarding schools are given in *Water, Sanitation and Hygiene Standards for Schools in Low-cost Settings*.
- 16 Only where people wet clean after toilet use.
- 17 A disease vector is a special type of intermediate host for parasites. A vector is not only required as part of the parasite's development, but it also delivers the parasite directly to subsequent hosts. Examples of vectors include fleas, mosquitoes or ticks.
- 18 Mooijman, Annemarieke, 'Manual on Hygiene Education in Schools: Teachers Guidebook', CCF-UNICEF, Colombo, Sri Lanka, 2006.
- 19 This diagram is known as the F-diagram because all germ paths of faecal and oral contamination start with the letter F.
- 20 Adapted from Child-to-Child Trust, *Children for Health: Children as partners in health promotion*, Macmillan Caribbean, Oxford, UK, 2005.
- 21 Adapted from Postma, Leonie, Renata Getkate and C. van Wijk, 'Life Skills-Based Hygiene Education; A guidance document on concepts, developments and experiences with life skills-based hygiene education in school sanitation and hygiene education programmes', IRC International Water and Sanitation Centre, Delft, the Netherlands, in cooperation with UNICEF, 2004.
- 22 Hutton, Guy and Laurence Haller, *Evaluation of the Costs and Benefits of Water and Sanitation Improvements at the Global Level*, World Health Organization, Geneva, 2004.
- 23 Prüss-Üstün, Annette, et al., *Safer Water, Better Health: Costs, benefits and sustainability of interventions to protect and promote health*, World Health Organization, Geneva, 2008.

- 24 Talaat, Maha, 'Effects of Hand Hygiene Campaigns on Incidence of Laboratory-confirmed Influenza and Absenteeism in Schoolchildren, Cairo, Egypt', *Emerging Infectious Diseases*, Centers for Disease Control and Prevention', vol. 17, no. 4, 4 April 2011, <http://wwwnc.cdc.gov/eid/article/17/4/10-1353_article.htm>, accessed 28 January 2012.
- 25 Bowen, Anna, et al., 'A Cluster-randomized Controlled Trial Evaluating the Effect of a Hand-Washing-Promotion Programme in Chinese Primary Schools', *The American Journal of Tropical Medicine and Hygiene*, vol. 76, no. 6, 2007, pp. 1166–1173; Lopez-Quintero, Catalina, Paul Freeman and Yehuda Neumark, 'Hand-washing Among School Children in Bogota, Colombia', *American Journal of Public Health*, vol. 99, no. 1, January 2009, pp. 94–101.
- 26 Dillingham, Rebecca and Richard L. Guerrant, 'Childhood Stunting: Measuring and stemming the staggering costs of inadequate water and sanitation', *The Lancet*, no. 9403, 10 January 2004, pp. 94–95.
- 27 Ejemot, Regina I., et al., 'Hand-washing for Preventing Diarrhoea', *Cochrane Database of Systematic Reviews* 2008, Issue 1, 2008.
- 28 Lorntz, Breyette, et al., 'Early Childhood Diarrhea Predicts Impaired School Performance', *The Pediatric Infectious Disease Journal*, vol. 25, no. 6, June 2006, pp. 513–520.
- 29 Baird, Sarah, et al., 'Worms at Work: Long-run impacts of child health gains', October 2011, <www.povertyactionlab.org/publication/worms-work-long-run-impacts-child-health-gains>, accessed 31 May 2012.
- 30 Prüss-Üstün, Annette, et al., *Safer Water, Better Health: Costs, benefits and sustainability of interventions to protect and promote health*, World Health Organization, Geneva, 2008.
- 31 Bethony, Jeffrey, Simon Booker, and Marco Albonico, 'Soil-transmitted Helminth Infections: Ascariasis, trichuriasis, and hookworm', *The Lancet*, vol. 367, no. 9521, 2006, pp. 1521–1532, <[www.thelancet.com/journals/lancet/article/PIIS0140-6736\(06\)68653-4/fulltext#](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(06)68653-4/fulltext#)>, accessed 28 January 2012.
- 32 Miguel, Edward, and Michael Kremer, 'Worms: Identifying impacts on education and health in the presence of treatment externalities', *Econometrica*, vol. 72, no. 1, January 2004, pp. 159–217. Abstract available at <<http://onlinelibrary.wiley.com/doi/10.1111/j.1468-0262.2004.00481.x/abstract>>, accessed 28 January 2012.
- 33 Waddington, Hugh, et al., 'Water, Sanitation and Hygiene Interventions to Combat Childhood Diarrhoea in Developing Countries', *International Initiative for Impact Evaluation (3IE)*, Synthetic Review, vol. 001, 2009.
- 34 Jamison, Dean T., et al., eds., *Disease Control Priorities in Developing Countries*, 2nd ed., London School of Hygiene and Tropical Medicine, London, 2008, <www.dcp2.org/pubs/DCP>, accessed 28 January 2012.
- 35 Waddington, Hugh, et al., 'Water, Sanitation and Hygiene Interventions to Combat Childhood Diarrhoea in Developing Countries', *International Initiative for Impact Evaluation (3IE)*, Synthetic Review, vol. 001, 2009.
- 36 Ibid.
- 37 Nauges, Céline, and Jon Strand, *Water Hauling and Girls' School Attendance: Some new evidence from Ghana*, Toulouse School of Economics and DECEE, World Bank, Toulouse, France, Washington, D.C., 2011.
- 38 Njunguna, Vincent, et al., 'The Sustainability and Impact of School Sanitation, Water and Hygiene Education in Kenya', United Nations Children's Fund and IRC International Water and Sanitation Centre, New York and the Netherlands, 2008, <www.irc.nl/content/download/143166/453192/file/SummaryoverviewA4s.doc>, accessed 31 May 2012.
- 39 Kochurani, Mathew, et al., 'The Sustainability and Impact of School Sanitation, Water and Hygiene Education in Kerala, Southern India', United Nations Children's Fund and IRC International Water and Sanitation Centre, New York and the Netherlands, 2008, <www.irc.nl/content/download/143167/453195/file/kerala.doc>, accessed 31 May 2012.
- 40 IRC International Water and Sanitation Centre, 'Towards Effective Programming for WASH in Schools: A manual on scaling up programmes for water, sanitation and hygiene in schools', TP Series, no. 48, IRC, Delft, the Netherlands, 2007.
- 41 O'Reilly, C.E., et al., 'The Impact of a School-based Safe Water and Hygiene Programme on Knowledge and Practices of Students and Their Parents: Nyanza Province, western Kenya, 2006', *Epidemiology and Infection*, vol. 136, no. 1, January 2008, pp. 80–91; Bowen, Anna, et al., 'A Cluster-randomized Controlled Trial Evaluating the Effect of a Handwashing-Promotion Programme in Chinese Primary School', *American Journal of Tropical Medicine and Hygiene*, vol. 76,

- no. 6, 2007, pp. 1166–1173; Onyango-Ouma, W., J. Aagaard-Hansen, and B.B. Jensen 'The Potential of Schoolchildren as Health Change Agents in Rural Western Kenya', *Social Science & Medicine*, vol. 61, no. 8, October 2005, pp. 1711–1722.
- 42 Ibid.
- 43 Curtis, Valerie, et al., 'Evidence of Behaviour Change Following a Hygiene Promotion Programme in Burkina Faso', *Bulletin of the World Health Organization*, vol. 79, no. 6, 2001, pp. 518–527; Dongre, Amol R., et al., 'An Approach to Hygiene Education Among Rural Indian Schoolgoing Children', *Online Journal of Health and Allied Sciences*, vol. 6, no. 4, 2008; Pinfold, J. V. 'Faecal Contamination of Water and Fingertip-rinses as a Method for Evaluating the Effect of Low-cost Water Supply and Sanitation Activities on Faeco-oral Disease Transmission. I. A case study in rural north-east Thailand', *Epidemiology and Infection*, vol. 105, no. 2, October 1990, pp. 363–375.
- 44 LaFraniere, S., 'Another School Barrier for African Girls: No toilet', *New York Times*, 23 December 2005; 'Lack of Sanitaries Force Girls Out of School', *New Vision*, Kampala, 6 January 2004, <<http://allafrica.com/stories/200401060305.html>>, accessed 28 January 2012 ; 'Not only girls' toilets, but clean and safe girls' toilets', *Notes and News*, no. 3, 2001, <www.irc.nl>, accessed 28 January 2012; MacIsaac, M.K., 'Afghanistan: Girls' school attendance doubles in two years', *World Vision*, 17 May 2006; Benson, C., *Girls, Educational Equity and Mother Tongue-based Teaching*, United Nations Educational, Scientific and Cultural Organization, Bangkok, 2005.
- 45 This text has been adapted from Kirk, Jackie and Marni Sommer, 'Menstruation and Body Awareness: linking girls' health with girls' education'.
- 46 Brocklehurst, Clarissa, *The Case for Water and Sanitation*, World Bank, Water and Sanitation Programme, Africa, 2004.
- 47 Bolt, E. and Cairncross, S., *Sustainability of Hygiene Behaviour and the Effectiveness of Change Interventions: Lessons learned on research methodologies and research implementation from a multi-country research study*, IRC International Water and Sanitation Centre, Delft, the Netherlands, 2004.
- 48 Curtis, Valerie A., Lisa O. Danquah and Robert V. Aunger, 'Planned, Motivated and Habitual Hygiene Behaviour: An eleven country review', *Health Education Research*, vol. 24, 2009, pp. 655–673.
- 49 Sample questions can be found in UNICEF East Asia and the Pacific, *WASH in Schools Monitoring Package* at <www.unicef.org/wash/schools/files/wash_in_schools_monitoringpackage_.pdf>.
- 50 Government of India and United Nations Children's Fund New Delhi, 'An Inclusive Approach for School Sanitation & Hygiene Education: Strategy, norms & designs', Government of India and UNICEF New Delhi, New Delhi, India, 2008.
- 51 United Nations Educational, Scientific and Cultural Organization, *Education for All Global Monitoring Report*, UNESCO, Paris, 2011, <www.unesco.org/new/en/education/themes/leading-the-international-agenda/efareport>, accessed 28 January 2012.
- 52 Analysis of 2008 UNICEF country office annual reports.
- 53 Information estimated in 2005 and updated in 2009 by Henk van Norden, UNICEF Regional Adviser on Sanitation and Hygiene.
- 54 Ibid.
- 55 Mooijman, Annemarieke, et al., 'Strengthening Water, Sanitation and Hygiene in Schools: A WASH guidance manual with a focus on South Asia', UNICEF Regional Office for South Asia, IRC and Water Supply and Sanitation Collaborative Council TP Series number 53, 2010, <www.irc.nl/page/52816>, accessed 28 January 2012.
- 56 Department of Water Supply and Sewerage and UNICEF Nepal, 'School Sanitation and Hygiene Education. Programme Guideline', 5th ed., Nepal, 2006.
- 57 Ibid.
- 58 More information on scaling up WASH in Schools can be found in IRC International Water and Sanitation Centre, 'Towards Effective Programming for WASH in Schools: A manual on scaling up programmes for water, sanitation and hygiene in schools', TP Series: no. 48, IRC International Water and Sanitation Centre and United Nations Children's Fund, the Netherlands and New York, 2007.
- 59 Adams, John, et al., *Water, Sanitation and Hygiene Standards for Schools in Low-cost Settings*, World Health Organization, Geneva, 2009.

For more information, please contact:
Education Section
Programme Division, UNICEF

Published by UNICEF
Division of Communication
3 United Nations Plaza
New York, NY 10017, USA

Website: www.unicef.org
Email: pubdoc@unicef.org

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