



Background and Rationale for School Sanitation and Hygiene Education

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Global context

At the eve of the new Millennium, despite all the progress reported world-wide in recent decades, more than 2,3 billion people still live without access to sanitation¹ facilities and are unable to practise such basic hygiene as washing their hands with soap and water. Diseases related to poor sanitation and water availability cause many people to fall ill or even die. Children are the most vulnerable to health hazards and consequently are affected the most. In 1998 2,2 million people died because of diarrhoeal diseases, of which the vast majority were children. In addition poor sanitation has led to the infestation of nearly a billion people - largely children - with a variety of worm infections, with its corresponding costs in health and energy.

While the impact of poor sanitation and hygiene is known to be disastrous for small children, it also has an important impact on the health of school-age children including adolescents. It is obvious that lack of sanitation and hygiene is a public disaster that deserves the highest priority.

When children survive beyond their fifth birthday, they still face major problems of ill-health and malnutrition. Over 1.4 billion children between the ages of 5 and 14 - approximately 87% of all children - live in developing countries. Children in this age group are 14 times more likely to die between their 5th and 14th birthdays than their counterparts in industrialised countries. It is widely recognised that schools could play an important role in bringing about behavioural changes and promoting better health.

One of the major problems faced by hundreds of millions school-age children is infection by parasites and flukes. These parasites consume nutrients from children they infect, bringing about or aggravating malnutrition and retarding children's physical development. They also destroy tissues and organs in which they live causing pain and various health problems. water and sanitation related diseases affecting children include diarrhoea, trachoma, schistosomiasis, scabies and Guinea worm. All of these have compromise children's attendance and performance at school and, not uncommonly, can result in death.

Most of these infections which statistics tell about, **are preventable**. Diseases such as diarrhoea and parasitic worm infections need to be tackled by making improvements to water and sanitation facilities. However such improvements must go hand in hand with hygiene behaviour change, if the transmission of disease is to be prevented. Access to sanitation facilities is a fundamental right that safeguards health and human dignity. Providing such facilities at schools not only helps to meet that right; it also provides the most favourable setting to encourage behaviour change in the school and in the community.

Implementing the right to sanitation is critical to positive outcomes in early childhood care, for young children and adolescents, especially girls.

¹ *Improved environmental sanitation and hygiene behaviour involves change. The term sanitation, therefore, is defined as a process whereby people demand, effect and sustain a hygienic and healthy environment for themselves, their family members and their community.*

The link between health and learning

As numerous studies show, education and health are inseparable: nutritional deficiencies, diarrhoea and helminth infections affect school participation and learning . Importantly, many of these issues can be addressed effectively through health, hygiene and nutrition policies and programmes for students and staff.

Often there are not enough resources and time to address all the health problems at once and to accomplish all the goals of a health promotion or disease prevention effort. Programme planners sometimes must choose between providing a variety of strategies for a given population or focusing their efforts on a smaller number of activities. School hygiene education and sanitation promotion is being considered as a critical area for intervention, and a special interagency initiative - called **FRESH** (see below) - has been started to address these issues in a more integrated manner.

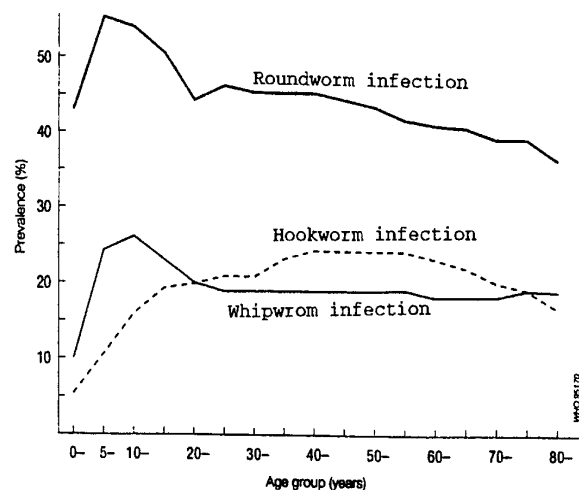
The present situation in schools

The sanitary conditions of schools in rural and urban areas in developing countries are often appalling, creating health hazards and other negative impacts, thus schools are not safe for children. Although water and sanitation facilities are recognised as fundamental for hygienic behaviour and children's well-being, in practice, the sanitary conditions in most schools are woefully inadequate. Water supply, sanitation and hand washing facilities are either non-existent, too few or inadequate due to poor maintenance of water systems and toilets or latrines. Lack of facilities is only part of the problem. Where they are present, facilities are not adapted to the needs of children, in particular girls. Also the motivation of teachers and head teachers to provide offer skills-based hygiene education is not always evident.

How sanitary can conditions be when 90 young children in a school are sharing one toilet? Or when 54% of the toilets are not functioning? Primary schools in some of the poorest countries have inadequate sanitation facilities, according to a pilot survey of 14 countries in 1995. The average number of users is often higher than 50 students per toilet in city schools. None of the 14 countries had increased the number of school toilets by more than 8% since 1990, suggesting that they are barely managing to keep up with the rise in student populations. Somewhat better progress had been achieved in providing safe water in schools. Inadequate sanitation and water in schools jeopardise not only students' health but also their attendance. Girls in particular are likely to be kept out of school if there are no sanitation facilities.
(UNICEF, Progress of Nations 1997, p. 13)

Why school hygiene and sanitation: the health perspective

Helminth infections are one of the leading causes of disease among young people and adults in the world today. Hundreds of millions of school-age children are infected by roundworm, whip-worm, hookworm, schistosomiasis and other flukes and/or guinea worm. Of these, the intestinal worms are most common. These parasites consume nutrients from children they infect. In doing so they bring about or aggravate malnutrition and retard children's physical development. They also destroy tissues and organs in which they live causing pain and various health problems. They affect the health and well-being of millions of people, especially young people. Figure 1 below shows that the highest rate of roundworm and whip-worm infections are often demonstrated in groups of 5-9 and 10-14 years old (WHO,1995). About 400 million



school-aged children are infected by roundworm, whip-worm and/or hookworm. In fact, roundworm and whip-worm alone are estimated to affect one quarter of the world's population. Research has shown that controlling these infections in children helps to reduce it in the adult population.

Guinea worm has a dramatic effect on school attendance . Children miss school when they have the disease themselves, and also when they have to stand in for their sick parents, working in the field or at home. Schools in endemic areas often have to close for a month or more each year as a result.

Diarrhoeal diseases are not exclusively a problem of infants; they are also an important cause of morbidity, absence from school and even mortality in older children. As case management of acute diarrhoeas has improved and brought down the diarrhoea death rate, an increasing proportion of the residue is attributable to persistent and bloody diarrhoeas, which are particularly susceptible to control by improved hygiene.

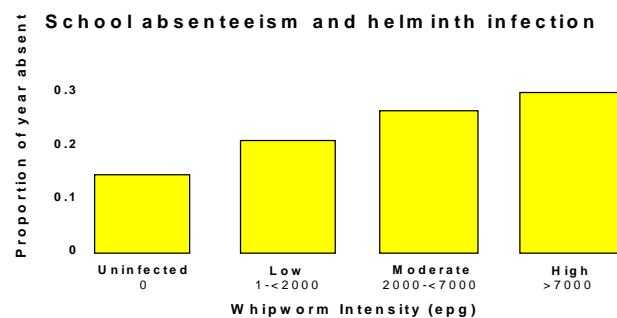
Eye infections, especially trachoma, are common among school children. Repeated infection during childhood is a key causative factor in the blindness which trachoma often causes later in life. Seventy percent of the blind people are women, who are most frequently in contact with infected children.

Table 1 provides all available 1997 global morbidity and mortality estimates for hygiene related diseases; age specific data are not yet readily available.

Morbidity and mortality associated with various water and sanitation related diseases			
Disease type	Morbidity (number of cases each year)	Mortality (deaths each year)	Population at risk
Diarrhoea	More than 4,000 million	2.5 million	More than 2,000 million
Amoebic dysentery	48,000	70,000	“
Cholera	145,000 (1996 data)	10,000 (1996 data)	“
Roundworm	250 million infections	60,000	“
Hookworm	151 million infections	65,000	“
Whip-worm	43.5 million	10,000	N/A
Guinea worm	70,000	None	100 million
Trachoma	600 million (6 million blind)	None	500 million
Schistosomiasis	200,000	20,000	600 million mostly in Africa

Source: World Health Report, 1998

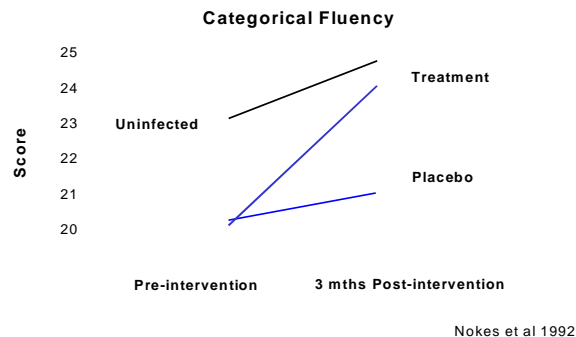
All these diseases have long-term consequences for a child's health, compromise children's attendance and performance at school and, not uncommonly, can result in death. As most of the infections are preventable, the emphasis should be on key interventions to break the transmission of these diseases. The essential barriers to most of these infections are (i) isolation of excreta from the environment and (ii) regular washing of hands and faces. Improved sanitation together with hygiene promotion can help control all these infections. Multiple, co-ordinated strategies produce a greater effect than individual strategies, but these strategies need to be selective and targeted. While treatment of parasitic infections may have an immediate short term impact, a programme will only have show a sustainable effect when combined with training of teachers and administrators, classroom education and the provision of sanitary facilities.



Why school hygiene and sanitation: the learning perspective

Helminth reduction programmes in schools can have a significant impact on health and learning among school children. After de-worming, school children show remarkable spurts in their growth and educational development. Although limited in number, studies show that learning outcomes of healthy children are much higher than children infected with helminths (Figs a and b).

Improvement in Cognitive Performance with Treatment in School Children in Jamaica



These results from de-worming studies provide strong support for sanitation, because periodic use of anti-helminthic drugs can only be justified if at the same time the source of the infections (in most cases poor excreta management and poor excreta related hygiene) are addressed at the same time.

Also there is a positive association between education and productivity, so that infections which inhibit educational achievement are also likely to affect production during adulthood.

Why school hygiene and sanitation: the gender perspective

Lack of facilities and poor hygiene affect both girls and boys, although poor sanitation conditions at schools have a stronger negative impact on girls. All girls should have access to safe, clean, separate and private sanitation facilities in their schools. If there are no latrines and hand-washing facilities at school or if they are in a poor state of repair, then many children would rather not attend than use the alternatives. In particular girls who are old enough to menstruate need to have adequate facilities at school and normally separate from those of boys. If they don't they may miss school that week and find it hard to catch up, which makes them more likely to drop out of school altogether.

Lack of soap a gender issue

One of the boys in the group kept on saying, "girls lack soap, girls lack soap", as the main reason why they drop out from school. The complexity of girls poverty or lack of soap leads to sexual risk behaviour, i.e. selling sex or massive girl dropout from school at puberty. At this particular school, it happens between standard 6 and 7. Without soap a girl stinks and boys mock. Her rags (for sanitary towels) are recycled yet inadequately washed due to lack of soap. If she attends school, there are no girl-friendly sanitation facilities at school: no privacy, no water for washing hands. It seems a fallacy when we ask, "Why do girls continue to drop out from school". (Reijer, P. and Chalimba M.(2000). Going to Scale: sustained risk reduction behaviour for Youth. Evaluation report for the Government of the Netherlands UNICEF Malawi)

Many children, again mainly girls, miss out on time at school because they are having to walk long distances in order to fetch water. Also in schools, when the schoolteacher sends children to fetch water, it is predominantly girls who are sent.

When other family members become sick (often due to sanitation related diseases), girls are more likely to be kept home to help. This can lead to reduced school attendance by girls and can result in an increase in drop-out rates. This situation will become even more critical in communities hard hit by the HIV/AIDS pandemic.

Why school hygiene and sanitation: the child's perspective

Children spend long hours in schools. The school environment will partly determine these children's health and well-being by providing a healthy or unhealthy environment. Focusing on schools and the people connected to schools has several additional advantages. Compared to adults, children are more receptive to new ideas and can more easily change their behaviour and/or develop new long-term behaviours as a result of increased knowledge and facilitated practices. Depending on the culture, children and youth, accounting for more than half of the total population in many developing countries, may question existing practices in the household and become agents of change within their families and communities. Teachers as professionals and influential individuals, supported by the school management, can play an important role in the development of pupils through training and providing a role model in the communities.

Children are future role models and parents. What they learn at school is likely to be passed on to their peers and to their own children. It is obvious that all sanitation facilities and educational programmes should be adapted to the different physical and cultural needs of girls and boys at different ages, key aspects enshrined in the concept of child friendly schools.

Opportunities and Lessons learned

During the last decade school sanitation has been an integral part of more than 30 UNICEF country programmes, and in many more programmes, schools are involved in one way or another. An inventory of all UNICEF school sanitation and hygiene education programmes is presently in process. Although not yet completed, this shows that there is ample variation in the scale and approaches as well as the significance and effectiveness of the programmes.

A variety of approaches has been tried and valid experiences are accumulating on sustainable maintenance and community outreach, the training of teachers and other community members, and the construction of separate school sanitation facilities for boys and girls to increase enrolment and attendance of girls. However at the same time the need for guidance has been noted in reports from the field.

School sanitation facilities are not enough

Although there is an urgent need for speeding up the instalment of appropriate facilities, school sanitation is not only about building child-friendly facilities. Experience shows clearly that mere provision of services, be it within schools or at household level, will not be sustainable. Facilities need to be maintained, and in order to be maintained there must be recognised need and demand for water as well as sanitation at schools. To improve the sanitation environment of schools, and to ensure benefits from safe and clean facilities, behavioural change is needed, leading to a proper use of the facilities as well as to organised maintenance of the facilities and to sanitation-related behaviours such as hand-washing.

Schools are an integral part of a community. Involvement of community in school sanitation and hygiene activities increases the effectiveness of the programmes. It also promotes the sense of ownership within communities to sustain the school systems for operation and maintenance, particularly important in the absence of effective local government to provide such services. Although school sanitation and hygiene promotion can bring health benefits for the children and their family members who may improve their sanitation, it is clear that sanitation is a public good and that sanitation improvement has much greater benefit when it is achieved by a whole community. Experience shows that children can act as potential agents of change within their homes and communities through their knowledge and use of sanitation and hygiene practice learned at school. However, without mobilisation and motivation of the community as a whole, the impact of a school sanitation and hygiene promotion programme may remain limited. Further experimentation is needed to maximise the use of schools as an entry point for community sanitation and hygiene promotion and to define what support from community level is needed to make the interventions sustainable and cost-effective.

Vision 21 targets

The shared world vision for hygiene sanitation and water supply for the new millennium as presented in Vision 21 and based on the recognition of hygienic conditions and adequate access to safe water and sanitation services as fundamental rights, includes school sanitation and hygiene education targets. The suggested school sanitation and hygiene education targets for 2015 are:

- 80% of primary school children educated about hygiene
- all schools equipped with facilities for sanitation and hand-washing

The relevant target for 2025 is:

- all primary school children educated about hygiene.

UNICEF beyond the year 2000

One of the focus areas of UNICEF's intervention in the next decade is "*helping all children to enter and remain in school, by giving them the chance to learn in a "child-friendly" environment, to master basic education and to develop the social and intellectual skills needed for "responsible life in a free society..."*" (UNICEF 1999, The focus of UNICEF's Work Beyond 2000). School Sanitation and Hygiene Education is a means to this end.

UNICEF, together with many of its partners, is helping to shape the global agenda for children beyond the year 2000. The future agenda will focus on prevention in the key interventions of early childhood care, basic education and adolescence programmes. Water, environmental sanitation and hygiene education continue to be critical to the UNICEF mandate to promote early childhood care for survival, growth and development and basic education for children, with a focus on girls. UNICEF will continue to assist governments to move towards universal access to safe water supply and sanitation services as a fundamental need which is essential to ensure the right of the child to the enjoyment of the highest attainable standard of health and education.

Child-friendly Schools Framework

Ensuring that children are healthy and able to learn is a major component of an effective education system. Good health and nutrition are not only essential inputs but also important outcomes of good quality basic education. UNICEF together with its partners at global and country level is promoting rights-based, child-friendly education systems and schools, especially for excluded groups that are effective with children, healthy and protective for children, gender sensitive and involved with the community. The child-friendly school (CFS) framework has the capacity to get schools and communities working together to get more children into school and to make sure that they receive an education of better quality. Child friendly schools:

- promote good health:
 - provide hygiene and sanitation facilities;
 - provide life skills-based health and hygiene education
 - provide health and nutrition services
 - guarantee the security and safety of children
- promote child and youth participation
- encourage active school-parent community partnerships.

FRESH Start Initiative

The framework appears to be increasingly popular around the world, as the basis of both government policy and school-community practices. It is the basis of the FRESH start initiative which was launched in at the Education for all Conference in April 2000 in Senegal by UNICEF, WHO, UNESCO, IDAHO, Education International, the World Bank and the private sector. FRESH - Focussing Resources for Effective School Health - promotes the focusing of resources on the school-aged child and has developed a common framework as a starting point for an effective health component in a broader effort to achieve

more child-friendly schools. This framework includes a core of simple and familiar interventions that capture the best practices from programme experiences. These interventions, when supported by effective inter-sectoral and community partnerships, can even be implemented in the poorest schools and in hard-to-reach rural areas, as well as in more accessible urban areas. On the basis of the framework, the individual countries are expected to develop their own strategy to match local needs. The four core interventions proposed are:

1. Provision of safe water and sanitation

An essential step towards a healthy physical learning environment.

2. Skills-based health education

This approach to health education focuses on the development of knowledge, attitude, and life skills needed to deal with health and social issues. The development of specific psycho-social skills and the opportunity to use and practice them are central to effective skills-based health education. When individuals have these skills, they are more likely to adopt and sustain a healthy lifestyle during schooling and the rest of their lives.

3. School-based health and nutrition services

Schools can effectively deliver a variety of health and nutritional services provided that the services are simple, safe and familiar, address problems that are prevalent within the community and are recognized as important.

4. Health-related school policies

Health policies in schools can support the three interventions above. In addition, these policies could help promote inclusion and equity in the school environment if addressing issues like the further education of pregnant school girls, young mothers and children (in)directly affected by HIV.

Besides the four core interventions, the FRESH Start approach discerns three supporting activities that provide the context in which the interventions can be implemented.

These supporting activities are:

- Effective partnerships between teachers and health workers and between the education and health sectors
- *Effective community partnerships:* promoting a positive interaction between the school and the community which is fundamental to the success and sustainability of any school improvement process.
- *Pupil awareness and participation* as children must be important participants in all aspects of school health programmes and not simply the beneficiaries.