

## Watching the world wash its hands of sanitation

A leading expert recently expressed an ambitious view that waterborne infectious diseases could be consigned to history. Alan Fenwick (Imperial College, UK) points out that the continual donation of drugs and other inexpensive treatments by a number of effective global health partnerships could control many waterborne and vector-borne diseases effectively by 2015, which is the target for reaching the Millennium Development Goals (MDGs). He insists that treatment will substantially reduce disease morbidity, while also lowering overall disease transmission. However, disease transmission will still continue unless we tackle the root causes of these diseases, which are poor access to safe water and basic sanitation.

A new joint WHO/UNICEF report on the progress towards meeting the water and sanitation MDG targets provides grim reading. The report states that the world is barely on track to reducing the proportion of people without sustainable access to safe drinking water, and the sanitation target is likely to be missed entirely. By 2015, if the current trends continue, over 900 million people will not have access to safe drinking water and 2.4 billion people will be without access to basic sanitation. According to the report, current efforts need to be stepped up by almost a third to meet the water target and almost doubled to meet the sanitation target.

Among the largest disparities in safe water and basic sanitation are those between urban and rural populations. Currently 95% of city dwellers have access to improved drinking-water sources, while 80% have access to sanitation services. But in rural areas only 73% of people have access to water, and 39% have access to sanitation services. Population growth remains a major challenge, and is now placing a huge burden on the ability to meet water and sanitation needs. Of most concern is the situation in sub-Saharan Africa followed by parts of eastern Asia and southern Asia. Of all age groups, children face the biggest risk to their survival and development. Populations often overlooked or difficult to reach are those in temporary camps, and periurban and slum areas. Here water and sanitation facilities, if any, are stretched to the limit and lead to outbreaks of cholera and other water-related diseases.

Any political will to improve sanitation has not been translated into action, either on the donor front or at the national level. Since the mid-1990s there has been an improvement in funding water projects but not sanitation, particularly in sub-Saharan Africa. Furthermore, compared

with other sectors such as health and education, official development aid for water and sanitation has not kept pace. In the future, given that emerging economies such as India and China represent the biggest population growth areas, it will be critical for these countries to invest in meeting the water and sanitation needs of the poor and marginalised.

Supplying basic sanitation is neither difficult nor costly, especially in rural areas. But like water a key requirement is sustainability—that services are still working in 10–20 years and are not one-off projects. Ownership of water and sanitation initiatives by the community needs to be encouraged by donors and governments. If people can afford to pay, even a small amount, the community are more likely to look after their facilities in the long-term. Similarly, an incentive is important for service providers—they should be paid if they can ensure the running, repair, and maintenance of systems.

There needs to be a range of sanitation services that are technically, socially, environmentally, and financially appropriate, and tailored to men, women, and children. There cannot be a one-size fits all approach. The gender dimension of the sanitation problem goes beyond health and for women it becomes a human dignity issue. 1.3 billion women and girls in developing countries are coping without access to private, safe, and sanitary toilets. In some settings where basic sanitation is lacking, women and girls have to rise before dawn, making their way in the darkness to fields, railroad tracks, and roadsides to defecate in the open, knowing they may risk rape or other violence in the process. This situation is not acceptable. Women need to be consulted when toilets are built and be allowed to manage their sanitation facilities. There needs to be a focus on sanitation in schools. Child-friendly facilities, and separate facilities for girls and boys need to be promoted. Sanitation should be seen as an important part of basic education, child survival, and development.

The importance of access to safe water and basic sanitation needs to be recognised by the health, environment, and education sectors more prominently. Taking a more cross-sectoral approach will raise the profile of water and sanitation, and encourage primary investment that will contribute to the overall health and well-being of the community.

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Mark Edwards/Still Pictures

For more information see *Science* 2006; **313**: 1077–81

For report see [http://www.who.int/water\\_sanitation\\_health/monitoring/jmp2006/en/index.html](http://www.who.int/water_sanitation_health/monitoring/jmp2006/en/index.html)

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