



Water supply, sanitation, hygiene and HIV/AIDS – the unrecognized links

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People with HIV/AIDS need better access to clean water and sanitation so that they can fight infection better. But the prevalence of the illness in many parts of the world means that community-based water supply systems are less well managed, and there is a high turnover of staff in government agencies.

AIDS has become the most devastating global epidemic the world has ever faced. At the end of 2002, over 20 million people had died, an estimated 42 million people globally were infected with HIV and over 5 million people were newly infected each year. Because the epidemic is concentrated in the most productive age group, regardless of economic or educational status, it has a systemic impact on economic development at all levels, affects all development sectors, threatens the social fabric of society and fundamentally challenges the security and stability of a growing number of countries.

For the water and sanitation sector, the epidemic jeopardizes the Millennium Development Goal to halve the proportion of people who are unable to reach or afford safe drinking water. Moreover, the goal set at the World Summit on Sustainable Development in Johannesburg in 2002 to halve the number of people without access to improved sanitation will probably not be achieved.

So far, the response of the water and sanitation sector to the HIV/AIDS epidemic has been limited. The aim of this article is to explain the links between the sector and HIV/AIDS and to discuss the implications of HIV/AIDS on sector performance.¹

Staying healthy

The main objective of the water supply sector is to improve people's health by providing access to safe water supply

and (environmental) sanitation. With HIV/AIDS, people's vulnerability increases and water- and sanitation-related diseases such as diarrhoea and various types of skin disease become more critical. In addition, unventilated houses with inadequate drainage increase the risk of tuberculosis infection, and inadequate waste management attracts insects and vermin that carry diseases. Even 'common' worms can kill people with AIDS – especially children – because when the worms get into the lungs they may catch pneumonia. Accessible and adequate water supply and sanitation help HIV-infected people to remain healthy for as long as possible and they help people with AIDS to reduce their exposure to sources of infection.

Home-based care

The majority of AIDS patients are cared for within their local communities. Water is needed for bathing patients, washing soiled clothing and linen, and keeping the home environment clean. Safe drinking water is needed for taking medicines and to make food easier to eat for patients suffering from mouth ulcers or thrush. Water supply points and latrines have to be accessible and close to where they are needed to reduce the burden of a long walk and to maintain the sense of dignity of both patients and caregivers.

Caregivers need to be trained in safe water-handling and sanitation practices, personal hygiene, domestic hygiene,

food hygiene and safe wastewater disposal and drainage to effectively reduce their exposure to the water- and sanitation-related diseases of their patients. Therefore, hygiene education must be one of the elements in training for home-based care.

Infant feeding

If a mother is HIV positive, there is a 33 per cent risk that she may transmit the virus to her baby through breast-milk, even if the child was born HIV negative. The 'obvious' solution would be not to breastfeed the child, but this has proven to be very difficult because of social, cultural and financial reasons. Whether breastfeeding or not, clean water is crucial for infant feeding and HIV-positive babies need to be protected even more from unsafe water because it will weaken their resistance and shorten their lives.

Water for productive use

Households coping with the effects of HIV/AIDS can in particular benefit from the use of water supply for small-scale production as this contributes to food security and the diversification of incomes. It can generate nutritional value and reduce expenditure on health. People who are weakened by AIDS can still be involved in growing vegetables in kitchen gardens, provided that they do not need to haul water from far away. The same applies to tending domestic animals and home-based businesses, such as beer brewing.



Home-based care volunteers growing vegetables for their AIDS patients in Livingstone, Zambia.

HIV/AIDS and service provision

Government agencies in countries with a high HIV/AIDS prevalence face increasing difficulties in addressing their mandate and in responding to the challenges posed by HIV/AIDS. First of all, the administration of the agency itself will be affected, especially in high-prevalence countries where staff infection rates can be as high as 30 per cent. The implications of this in terms of human resource management are enormous, as planning has to be taken into account for staff recruitment, training, multi-skilling and replacement procedures. In addition, policies have to be developed and funding made available for staff benefits, insurance, sick and compassionate leave and funeral expenses. Staff morale is likely to be affected by stress and financial pressures, leading to absenteeism and loss of productivity. Yet, due to the stigma associated with HIV/AIDS, only very few organizations (public, private and NGOs) have developed an internal HIV/AIDS policy and created an atmosphere that facilitates prevention and action to mitigate impact.

Service provision is affected because of the loss of skilled staff leading to reduced quality in the planning and construction of water-supply systems. The loss of staff also results in reduced technical support for operation and maintenance and quality monitoring. Thus, more robust and reliable water-

supply systems (and treatment processes) that do not require intensive supervision or management are needed.

All these recommendations require more financial resources. This is especially difficult at a time when service delivery costs are already increasing as a result of the 'internal' impact of HIV/AIDS, budgets are decreasing because of a reducing tax base, and the ability of end-users to contribute to the capital or operating costs of installations is declining. A loss of staff also affects the provision of training at community level for operation and maintenance and in hygiene education. Yet, local people's need for adequate water and sanitation services is increasing, and so is the need for training, because the turnover of trained committee members is likely to be high.

Impact on sustainability

So far, the water and sanitation sector has paid little or no attention to the actual and potential impact of HIV/AIDS on the financial, social and economic feasibility and sustainability of water supply and sanitation systems. Sustainability is affected by a reduced ability of water users to pay water fees because of the loss of household breadwinners, increased medical expenditures and overall livelihood insecurity. The management of water supply systems is threatened by the reduced ability of water users to spend

time and energy on management, and the loss of trained community members. The basic principles of sustainable community water supply are eroded, when householders may not be able to participate in planning, decision making and implementation and when their specific needs may not be taken into account.

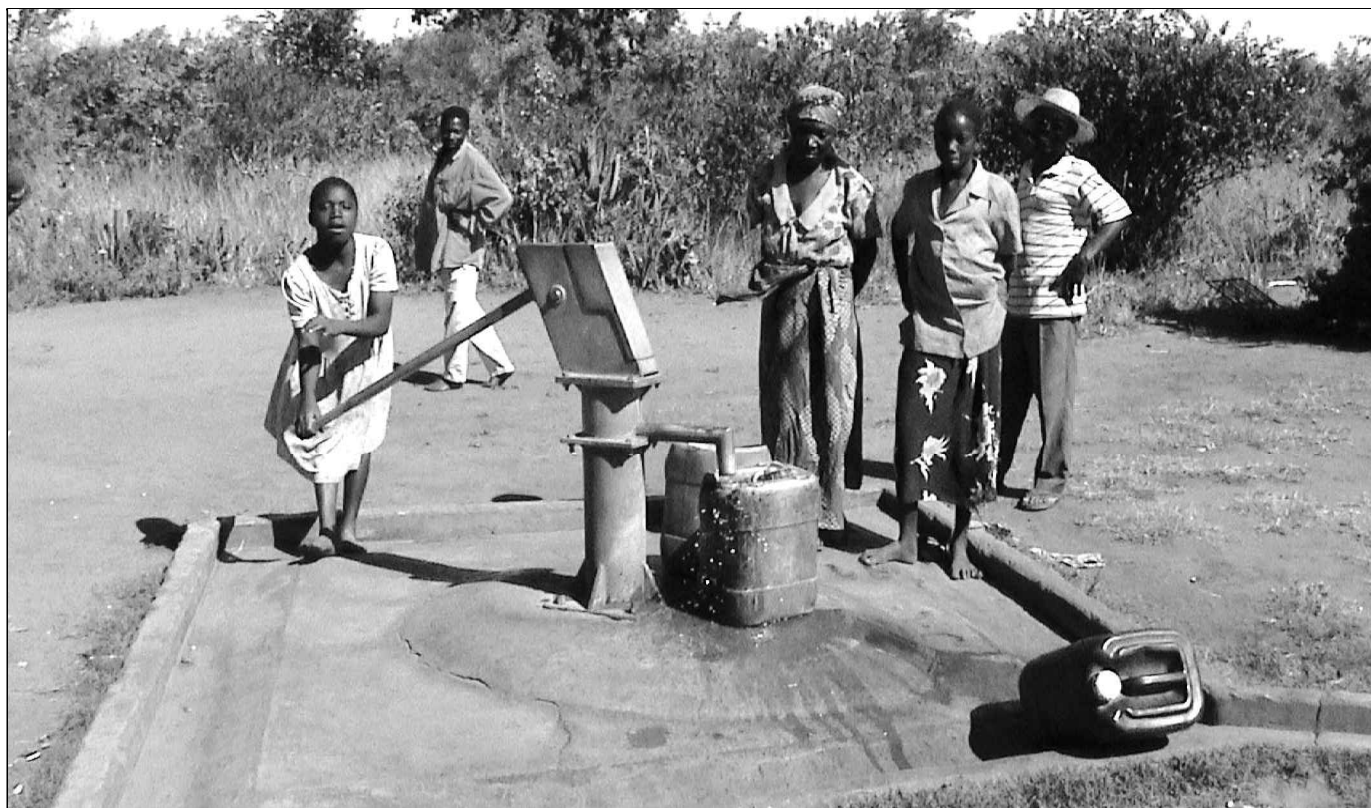
Child-headed and grandparent-headed households are particularly at risk of being excluded from decision making and from valuable operational and hygiene information. Finally, the overall sustainability of systems is jeopardized because of the reduced capacity of women to be involved. Everywhere, women are bearing the main burden of AIDS care, leading to 'time poverty', whereby water collection and operation and maintenance tasks become increasingly burdensome. This is particularly significant when women themselves suffer from bad health, whether AIDS-related or not.

Conclusion

Safe water and sanitation are a basic need and a human right, and this applies even more to people affected by HIV/AIDS as it will help to sustain them longer in good health, facilitate care for ill patients and increase their dignity. This implies a need for hygiene education to be integrated in the training given to home care volunteers in order to ensure safe water-handling practices.

Although the water and AIDS links are clear, affecting the sector in many ways, very few adjustments are being made to integrate HIV/AIDS concerns into planning and implementation by policy makers, water departments or even by water NGOs. The water and sanitation sector, like all other sectors, must make a commitment to address HIV/AIDS and develop workplace policies that create a supportive organization, including preventive strategies such as peer education, adjusting working conditions to diminish susceptibility to infection and IEC (information, education and communication).

IEC involves awareness-raising through information and education on basic facts about HIV/AIDS and methods for prevention; about barriers to prevention, including stigma; and



Community water supply systems are threatened by people's reduced ability to spend time and energy on management and repairs



Medical personnel and drugs are in short supply in this Zimbabwean hospital. Water and sanitation agencies, as well as hospitals, suffer high staff turnover as a result of HIV/AIDS

about health services related to HIV/AIDS such as voluntary counselling and testing. Operational planning procedures need to incorporate HIV/AIDS impact on productivity to maintain service provision to the required level.

In addition, water sector planners and decision makers at all levels need to assess, address and continuously monitor the current and expected impact of HIV/AIDS on the demand and need for water and sanitation and on the ability of communities to finance

and manage water supply and sanitation. In a context of AIDS, systems need to be sustained with a declining pool of skilled outsiders, and village-level operation and maintenance principles are more important than ever.

At the same time, current demand-responsive and market-driven approaches and policies that promote full cost recovery and private sector involvement risk further marginalizing the affected communities and jeopardizing their access to improved water supply and sanitation. In the face of the epidemic, these approaches and policies may well have to be reviewed, while implementation strategies that are equitable, gender-sensitive and pro-poor may need to be financially supported much more than is currently the case.

About the authors

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References

1. For a more in-depth review see www.irc.nl/tops by the same authors.