

## HIV/AIDS and Income Generation

### The facts

- HIV/AIDS imposes very high direct cost burdens on households, of between 8% and 20% of annual household income, rising in the latter stages of the disease to 50% to 100%.
- It is important for households living with HIV/AIDS to maximise opportunities for income generation. Improved access to water supply provides important labour saving benefits to households affected by HIV/AIDS. Less time dedicated to fetching water frees up time for income generation and enterprise development.

### Why water sanitation and hygiene?

#### Easing the domestic work burden

- Improved water and sanitation facilities allow carers to devote greater time to the sick and to provide a better quality of care.
- African and Asian women walk an average of 6km in order to fetch water. Indian women spend on average 2.2 hours per day in this activity. Water, sanitation and hygiene projects in Ethiopia reduced this time from 6 to 8 hours down to 5 to 20 minutes.
- Improved water supply increased the amount of water available for domestic uses from 10 litres per day per person to 18-22 litres. Women reported that their domestic chores were easier as the amount of water used was not so severely restricted.

### Increasing economic productivity

Improved water supply allows the development of income generating work due to time saved and to enterprises which depend on an adequate water supply. The following examples relate to women rather than men, as these initiatives have been found to have the greatest impact on the economic status of women.

- Women potters in Ghana had time to increase their production and trade. Also, there was water now available for cola nut and palm oil processing and for distilling Akpeteshie, a local alcoholic drink for sale.
- Gujarati women's economic productivity increased due to time saved by a new water supply system. An additional programme of support for the women to develop handicrafts addressed the usual constraints to taking up new enterprises – lack of funds and access to credit.

This Briefing Note focuses on HIV/AIDS only. There are very few examples to date of the impact of water supply, sanitation and improved hygiene on the lives of those with this disease. However, its impact on health and the care of the sick is known and can be applied to HIV/AIDS and this evidence is presented here.

### Key references

- Kamminga, E. and Wegelin, M. (2003). HIV/AIDS and water, sanitation and hygiene. Thematic Overview Paper. Delft: IRC International Water and Sanitation Centre. <http://www.irc.nl/page.php/111>
- WaterAid (2001). Looking back: The long-term impacts of water and sanitation projects. WaterAid. London.
- UNICEF (2004) HIV/AIDS <http://www.unicef.org/aids/index.html>

Full details of all the material used in support of this briefing note are available at [www.lboro.ac.uk/well](http://www.lboro.ac.uk/well)

There are six briefing notes in this series:

- The Poverty Millennium Development Goal: What water, sanitation and hygiene can do
- The Education Millennium Development Goal: What water, sanitation and hygiene can do
- The Child Health Millennium Development Goal: What water, sanitation and hygiene can do
- The Gender Millennium Development Goal: What water, sanitation and hygiene can do
- The HIV/AIDS Millennium Development Goal: What water, sanitation and hygiene can do
- The Environmental Sustainability Millennium Development Goal: What water, sanitation and hygiene can do

DFID Resource Centre in Water, Sanitation & Environmental Health  
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## BRIEFING NOTE 5

# The HIV/AIDS Millennium Development Goal

What water, sanitation and hygiene can do

### The Millennium Development Goals

In September 2001, the United Nations Millennium Summit agreed a set of time-bound and measurable goals aimed at combating poverty, hunger, illiteracy, environmental degradation and discrimination against women.

The sixth Millennium Development Goal (MDG) is to combat HIV/AIDS, malaria and other diseases. The target is to halt and begin to reverse the spread of HIV/AIDS and the incidence of malaria and other major diseases by the year 2015.

### Headline facts

The MDGs are strongly inter-dependent and programme interventions must reflect this. *Water, sanitation and hygiene deliver outcomes across the MDGs.*

### Why is water, sanitation and hygiene so important for those living with HIV/AIDS?

- HIV/AIDS and Children**  
Improved water supply, sanitation and hygiene education minimises exposure of infants to HIV/AIDS through unsafe breastfeeding and protects those who are infected from further opportunistic disease.
- HIV/AIDS and Staying Healthy**  
Improved water supply, sanitation and hygiene education reduces the incidence of opportunistic infections in HIV/AIDS sufferers, allowing them to stay healthy for as long as possible.
- HIV/AIDS and Home-Based Care**  
Where there is access to safe water and appropriate sanitation facilities, home-based care of HIV/AIDS patients and the task of ensuring their dignity, is made easier.
- HIV/AIDS and Income Generation**  
Safe water supply and sanitation facilities provide time and resources to take up economic opportunities, to supplement the income of households living with HIV/AIDS.



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WEDC at Loughborough University UK  
IRC at Delft, The Netherlands  
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## HIV/AIDS and Children

### The facts

- Babies born to HIV positive mothers have a 10-20% chance of contracting the virus through breast milk and breastfeeding.
- However, babies who do not breastfeed are six times more likely to die from diarrhoea or respiratory infections, than breastfed babies, mostly because contaminated water is used in mixing the formula and bottles are unclean.
- Infant and child infection and death rates from HIV/AIDS have risen sharply, with 800,000 children under the age of 15 contracting HIV in 2000, over 90% through parent-to-child transmission. 14 million children are now orphans because of the disease. Infection rates for girls and young women can be twice that of boys.
- Infants who are HIV positive are particularly prone to fevers, diarrhoeas, chronic gastroenteritis, ear infections and tuberculosis. Therefore, there is a vital need for safe water, sound sanitation and good hygiene practice to minimise exposing children to disease agents, which could stress or compromise their immune systems.
- Children caring for relatives suffering water-related illness or replacing the role of a deceased parent also miss school.

### Why water, sanitation and hygiene?

- There are no figures for the impact of water, sanitation and hygiene on infant feeding related to HIV/AIDS. Research into preventing mother-to-child transmission of HIV is ongoing. This is needed as bottle feeding is not always an affordable and socially acceptable option, and safe water for hygienic practice may not be available.
- Hygiene education programmes addressing the risks of HIV/AIDS to babies are important, but these are rare. Rajah Ramawamy Mudaliar Maternity Hospital for antenatal care in Chennai, India, holds monthly sessions providing women with information about pregnancy, diet, exercise, breastfeeding and HIV/AIDS.



- Education is a key defence against the spread of HIV/AIDS. However, of the 120 million school-age children not in school, the majority are girls. Girls are less likely to go to school if there are not separate and private sanitation facilities for girls and boys. One of many examples of impact on school attendance by girls is shown in four communities in Arappalipatti and Panjapatti, India, where girls' attendance has risen since the introduction of water points.



## HIV/AIDS and Staying Healthy

### The facts

- HIV/AIDS cannot be spread or prevented through water supply, sanitation or hygiene. However, access to reliable, affordable and safe water and sanitation can significantly mitigate against some impacts of the disease and improve the quality of life of those living with it.
- Diarrhoea and skin disease are among the most common opportunistic infections which affect those living with HIV/AIDS, but these can be reduced by safe water supply and sanitation.
- It is important to reduce the chances of HIV/AIDS patients getting diarrhoea and skin diseases, to allow them to remain healthy for as long as possible.
- In order to optimise the impact of water supply and sanitation services, they must be integrated with hygiene promotion that focuses on safe water handling and appropriate sanitation practices.

### Why water, sanitation and hygiene?

Water, sanitation and hygiene can mitigate against the occurrence of illness:

- The incidence of water-related diseases and skin diseases decreased in WaterAid's studies of water provision in Ethiopia, Ghana, India and Tanzania.
- Households with a 10 per cent increase in water use for cleaning purposes enjoy a decrease in cases of diarrhoea by 1.3%.
- Access to water can increase food security, which in turn helps people to remain healthy. Nutrition can be improved by making food softer and easier to eat by mixing it with safe water where people are suffering from mouth ulcers or thrush and cannot eat solid foods.

## HIV/AIDS and Home-Based Care

### The facts

- Home-based care (caring for people living with HIV/AIDS within communities) is now regarded as an essential element in the continuum of care, where hospital admission is not feasible. Although traditionally this is the responsibility of women, it increasingly falls to children and the elderly in cases of HIV/AIDS. Access to basic services can ease this burden.
- A reliable water supply and good sanitation facilities are indispensable for this and assist in the tasks of bathing, washing, cleaning and disinfecting the home environment, providing water for taking drugs, using latrines to avoid contamination of water sources, ensuring the increased comfort and dignity of patients, and safe human waste disposal for those who are bed-ridden.

### Why water, sanitation and hygiene?

There is no direct evidence of impact of water, sanitation and hygiene on the care of HIV/AIDS patients. It is clear from other studies, however, that water, sanitation and hygiene makes care of the sick within the home easier.

- Due to the establishment of a safe water supply, water used for personal bathing, washing clothing and utensils increased from about 30% to more than 50% of total water consumption.
- Volume of water consumption for potable and non potable purposes increased from 40 to 100 litres per day in India.
- Bathing using soap increased from less than once a week to as often as every day.



- The existence of a yard tap nearly doubles the chances of a mother washing her hands after cleaning a child's anus, and doubles the chances of her washing faecally soiled linen immediately.
- Households with a distant water source cooked little, and only once a day because of a lack of water.
- A study in Salvador, Brazil, showed that children in households with no toilet, had twice the incidence of diarrhoea than those with sanitary toilets.

