

HIV/AIDS and water, sanitation and hygiene

Thematic Overview Paper

By: Evelien Kamminga and Madeleen Wegelin Schuringa
(Royal Tropical Institute - KIT)

Reviewed by: Kathy Eales and Nomsa Mbovani

Update 2005

Please note that the TOPs are a web-based series. However, we feel that those who don't have access to the Internet should be able to benefit from the TOPs as well. This is why we have also made them available as paper versions.

This TOP is published as a PDF on IRC's website. A summary is made available as web text and will give you an idea of what the TOP is about before downloading the whole document.

We apologize to those using the paper version if some links are not in footnotes or there are any other inconsistencies with the web text. For those using the web version, the links were all checked in August 2005. Since then, changes may have occurred that have made these web pages no longer accessible.

Table of Contents

(TOPs): an effective way to TOP up your knowledge	v
Contents of each TOP	v
1. HIV/AIDS and water, sanitation and hygiene	1
1.1 How to make the most of this TOP	1
2. Why this theme matters	2
2.1 Impact of HIV/AIDS	2
2.2 Not simply a health issue.....	2
3. Basic facts about the epidemic	4
3.1 HIV and AIDS	4
3.2 Latency period and testing	4
3.3 Phases of the epidemic	6
4. Linkages between HIV/AIDS and water, sanitation and hygiene: different perspectives .	9
4.1 The consumer perspective	9
4.2 The health perspective	12
4.3 The gender perspective	14
4.4 The community-management perspective	15
4.5 The poverty alleviation perspective	16
4.6 The rights-based perspective	19
4.7 Conclusion	21
5. Impact of HIV/AIDS on water and sanitation organisations and service provision	23
5.1 Internal organisational impact.....	23
5.2 Impact on service provision	26
5.3 Conclusion.....	28
6. Impact of HIV/AIDS on the sustainability of community-based water supply and sanitation systems	30
7. Impact of HIV/AIDS on demand for water and sanitation services	32
7.1 Demographic changes.....	32
7.2 Increased need for water supply and sanitation services at household level.....	32
7.3 Conclusion	33
8. What have we have learned?	35
8.1 National leadership and political commitment is crucial at all levels	35
8.2 HIV/AIDS: a development problem that requires a multi-sectoral approach	35
8.3 Water, sanitation and hygiene education are key services for home-based care and impact mitigation.....	36
8.4 The water and sanitation sector lags behind in addressing HIV/AIDS	37
8.5 Mainstreaming HIV/AIDS in the water sector	38
8.6 Water supply and sanitation programmes that stimulate empowerment and poverty alleviation also address key issues for HIV/AIDS prevention and mitigation.....	39
8.7 Involvement of people affected by HIV/AIDS	40
9. Implications for the water and sanitation sector: multiple responses to HIV/AIDS	41
9.1 National leadership and political commitment at all levels	41

9.2	HIV/AIDS is a development problem that requires a multi-sectoral approach	41
9.3	Water, sanitation and hygiene education are key services for impact mitigation	42
9.4	The Water and Sanitation Sector lags behind in addressing HIV/AIDS	43
9.5	Mainstreaming HIV/AIDS in the water sector	43
9.6	Water and sanitation programmes that stimulate empowerment and poverty alleviation also address key issues for HIV/AIDS prevention and mitigation	44
9.7	Involvement of people living with HIV/AIDS	45
	TOP Resources	46
	List of abbreviations and acronyms	65
	About IRC	66

(TOPs): an effective way to TOP up your knowledge

Do you need to get up to speed quickly on current thinking about a critical issue in the field of water, sanitation and health?

Do you need to get up to speed quickly on current thinking about a critical issue in the field of water, sanitation and health?

Try an IRC TOP (Thematic Overview Paper).

TOPs are a web-based initiative from IRC. They combine a concise digest of recent experiences, expert opinions and foreseeable trends with links to the most informative publications, websites and research information. Each TOP will contain enough immediate information to give a grounding in the topic concerned, with direct access to more detailed coverage of your own special interests, plus contact details of resource centres or individuals who can give local help.

Reviewed by recognised experts and updated continually with new case studies, research findings, etc, TOPs will provide water, sanitation and health professionals with a single source of the most up-to-date thinking and knowledge in the sector.

Contents of each TOP

Each TOP consists of:

- An Overview Paper with all the latest thinking
- Case studies of best practice, if applicable
- TOP Resources:
 - links to books, papers, articles
 - links to web sites with additional information
 - links to contact details for resource centres, information networks or individual experts
 - a chance to feedback your own experiences or to ask questions via the Web.

The website will contain a pdf version of the most up-to-date version of the TOP and a summary as web pages, so that individuals can download and print the information to share with colleagues.

TOPs are intended as dossiers to meet the needs of water, sanitation and health professionals in the South and the North, working for national and local government, NGOs, community-based organisations, resource centres, private sector firms, UN agencies and multilateral or bilateral support agencies.

1. HIV/AIDS and water, sanitation and hygiene

1.1 How to make the most of this TOP

IRC's Thematic Overview Papers (TOPs) aim to give their readers two kinds of help:

- Easy access to the main principles of the topic – in this case HIV/AIDS and water, sanitation and hygiene (WSH) – based on worldwide experiences and views of leading practitioners.
- Direct links to more detailed explanations and documented experiences of critical aspects of the topic on the worldwide web.

This TOP is relevant not only for countries that are already highly affected by the epidemic (mainly in Africa), but also those with rapidly increasing infection rates (in Asia and Eastern Europe) and those in the beginning stage or not yet affected by the epidemic. It deals with the following topics:

- Some basic facts about the HIV/AIDS epidemic.
- Linkages between HIV/AIDS and water, sanitation and hygiene from different perspectives: health, gender, community management, poverty alleviation and human rights.
- The impact of HIV/AIDS on WSH organisations and service providers, in particular in terms of addressing their mandate and responding to the challenges posed by HIV/AIDS.
- The impact on the financial, social and economic feasibility and sustainability of WSH systems.
- The impact on the demand for accessible, reliable and affordable water and sanitation services, including planning and policy implications.
- Lessons learned in preventing and mitigating the effects of HIV/AIDS, both outside and inside the water and sanitation sector.
- What the water and sanitation sector can do about the problem of HIV/AIDS at different levels.
- TOP resources: publications, websites, contacts and toolkits.

If you want a quick check on how relevant this TOP may be to you, jump now to the QUIZ and test how much you know about HIV/AIDS, water, sanitation and hygiene. Then read on.

2. Why this theme matters

2.1 Impact of HIV/AIDS

AIDS has become the most devastating global epidemic the world has ever faced. At the end of 2004, an estimated 40 million people globally were infected with HIV. More than five million people are newly infected each year and more than 6,000 lives are lost every day to the disease. For the latest update on the epidemic see:

http://www.unaids.org/wad2004/EPIupdate2004_html_en/Epi04_02_en.htm#P16_3133

The impact of HIV/AIDS is unique because it kills adults in the prime of their lives, depriving families, communities and nations of their young and most productive people. At the same time, the slow attrition caused by the chronic illnesses associated with AIDS saps the resources of families and caregivers, weakening civic participation in development efforts and threatening the sustainability of those efforts.

For the WSH sector, the HIV/AIDS epidemic seriously jeopardises the Millennium Development Goal to halve the proportion of people who are unable to reach or afford safe drinking water. The same applies to the goal set in the World Summit on Sustainable Development in Johannesburg in 2002 to halve the number of people without access to improved sanitation.

The HIV epidemic will have a negative impact on the quantity and quality of services provided by the WSH sector. Not only will funding be reduced because of a decreased tax base and reduced government budget, but sector staff performance will also decline as a result of diminishing productivity and capacity, through staff illness and death, the lack of skills of new staff and lack of training capacity. Yet, the WSH sector can and should play a very important role in prevention and mitigation of the effects of the epidemic.

HIV/AIDS has a negative impact on overall social and economic development, reducing economic viability and, potentially, the political stability of countries with high prevalence rates. In some African countries, HIV/AIDS is reported to have set back development by a decade or more. The impact of HIV/AIDS is systemic and affects development at all levels: household, community, institutional and national.

2.2 Not simply a health issue

It is now widely acknowledged that HIV/AIDS is not simply a health issue, but a development problem that affects the whole fabric and future of societies. The Declaration of Commitment, which was adopted by the UN General Assembly Special Session on HIV/AIDS held in June 2001, described HIV/AIDS as a complex medical, social, economic, political, cultural and human rights problem, which cuts across all sectors of developing societies. It also stated that by 2003 HIV/AIDS prevention, care, treatment and support and impact mitigation had to be integrated into the mainstream of development planning,

including poverty eradication strategies, national budget allocations and sectoral development plans.

The unprecedented scale and seriousness of the pandemic has consequences for the viability of achieving the Millennium Development Goals that are currently guiding developmental efforts, both national and international. An explicit goal is to halt and reverse the spread of HIV/AIDS, but the virus also impacts on many of the other goals. An overview of these can be found in the UNDP document on AIDS and Poverty Reduction (<http://www.undp.org/dpa/frontpagearchive/2001/june/22june01/hiv-aids.pdf>).

3. Basic facts about the epidemic

3.1 HIV and AIDS

AIDS (Acquired Immune Deficiency Syndrome) is caused by the Human Immunodeficiency Virus (HIV) that damages a person's immune system. People become infected by HIV in three possible ways:

1. Through heterosexual or homosexual intercourse. Most infections in the developing world are transmitted heterosexually.
2. Directly into the bloodstream through use of contaminated blood or blood products, or sharing of intravenous drug-injecting equipment.
3. From mother to child. This may occur prior to birth across the placenta, during birth, or via breast milk.

The effectiveness of the different modes of transmission is shown below:

Mode of transmission	Estimated effectiveness
1. Sexual intercourse	0.1% - 1.0%
2. Through blood: - Transfusion - Drug injection - Other (ex. Tattooing)	>90% 0.5% - 1.0% Little
3. From mother to child (around birth)	20% - 40%

In Africa over 95 % of infection takes place through heterosexual intercourse. It may seem surprising that, with such a low transmission effectiveness, some 40 million people have become infected?

There are many different reasons for this – medical and epidemiological as well as social, cultural and economic – but one of the most influential factors is the presence of sexually transmitted diseases (STD). When a person already has an existing STD the risk of becoming infected rises 10% to 80% depending on the type of STD. Many people with STDs are not aware of their condition, as not all STDs are symptomatic. This is especially true for women. Access to STD and reproductive health services is therefore very important.

3.2 Latency period and testing

Latency period

When someone is infected with HIV, there is a latency period when the person is free of all symptoms. This period may last as long as ten years, depending on the general health and nutrition status of the individual. The length of the latency period is also influenced by the number of re-infections occurring through unprotected sex with another HIV positive

person. During this time there are no signs of being HIV positive and this is why 90% of infected people are not aware of their status. The only way to find out is through testing. This is done in health centres or in specifically established Voluntary Counselling and Testing (VCT) centres that may be public or private. The tests available have improved over the years and presently there are rapid tests that can give results within an hour. Yet, in most developing countries very few people go for voluntary testing. Most see no benefit in knowing their status, as there is no accessible treatment, because of cost and availability, and only stigma and discrimination for those infected with HIV. Apart from testing, the only sign that a woman may have that she is HIV positive is through delivery of a HIV positive baby that shows signs of illness. This may or may not be followed by a test on both mother and child. Even when the test is done, many women will not reveal their positive status to their partners or families – there are too many examples of women who have been chased from the house and blamed for the infection. Needless to say, most of these women have become infected through their husbands. An HIV test in fact tests for antibodies to the HIV virus, which can take 1-3 months to develop. A test taken immediately after exposure to HIV may be negative and needs to be repeated to be reliable. Some people take false reassurance from a negative test that has been done too early.

AIDS

The latency period comes to an end with the onset of illnesses. AIDS itself has few symptoms, but manifests itself by a breakdown of the immune system, resulting in vulnerability to a range of common diseases and infections. These opportunistic infections include especially tuberculosis, herpes and some forms of cancer. In addition, illnesses such as diarrhoea and malaria have a much more devastating effect on the body and its immune system, breaking this down rapidly. The opportunistic infections can be treated with the drugs that are normally used for them, but generally a person will die after a period of about two years unless treatment with anti-retroviral drugs begins before the onslaught of AIDS. Because the opportunistic infections are well known diseases, HIV/AIDS itself often remains 'invisible'. This makes it easier to deny and perpetuates the silence that surrounds the epidemic, thereby fuelling its spread.

Treatment

On World AIDS Day 2003, WHO and UNAIDS released a detailed and concrete plan to provide antiretroviral treatment (ART) by the end of 2005 to three million people living with AIDS in developing countries and those in transition: the 3 by 5 initiative (<http://www.who.int/3by5/publications/en/>). This is a vital step towards the ultimate goal of providing universal access to AIDS treatment to all those who need it. The importance of anti-retroviral therapy (ART) is:

- ART prolongs lives, making HIV/AIDS a chronic disease, not a death sentence. Affluent countries have seen a 70% decline in HIV/AIDS deaths.
- ART will help calm fears and change attitudes towards HIV.
- ART, as part of a prevention plan, can significantly reduce HIV transmission.
- ART, once very costly, is now much more affordable.

- ART can reduce overall health care costs and restore quality of life.
- WHO and UNAIDS are working to make ART accessible to all.

To reach the 3 by 5 target, WHO and UNAIDS focus on five critical areas:

- Simplified, standardized tools to deliver antiretroviral therapy.
- A new service to ensure an effective, reliable supply of medicines and diagnostics.
- Rapid identification, dissemination and application of new knowledge and successful strategies.
- Urgent, sustained support for countries.
- Global leadership, strong partnership and advocacy.

Although considerable progress has been made since 2003, the June 2005 progress report states that the estimate of approximately 1 million people now on treatment falls short of the milestone of 1.6 million set in the WHO/UNAIDS “3 by 5” strategy for June 2005. Current data and trends indicate that providing ART to 3 million people by the end of 2005 will be unlikely (<http://www.who.int/3by5/publications/progressreport/en/index.html>).

Transmission from mother-to-child (<http://www.who.int/reproductive-health/rtis/MTCT/index.htm>) can be reduced by a relatively simple and inexpensive treatment with anti-retrovirals around birth. The main problems are that most women do not realise they are HIV positive, the effectiveness of the drugs in subsequent deliveries is being debated, and after birth the child still has a one-in-three chance of becoming infected through breastfeeding.

3.3 Phases of the epidemic

The different phases of the epidemic are characterised by different levels of impact on different spheres of life and require different actions from the government. The table below clarifies these phases.

Table 2: Phases in the epidemic

Phase	Description	Influencing factors	Policy and programme focus
Spread of the virus	Hidden and asymptomatic, increasing number of people becoming infected	Mobility, inequalities of wealth, power and autonomy; prevalence of STDs, unemployment and loss of hope for the future	Prevention (IEC, condoms). Changes in norms and behaviour. Poverty alleviation focus
Increasing morbidity and mortality	HIV related conditions appear: illness, stigma, denial and increasing use of health care system	Extent of spread, awareness and knowledge of HIV/AIDS; prevention and care programmes; ethical and legal environment	Care and treatment, VCT, psychological support, blood security. Prevention (IEC, condoms). Changes in norms and behaviour. Sectoral support for care and treatment (health and water). Poverty alleviation focus
Social cohesion of communities affected	Children and other dependants left without support, households disintegrating, poverty spreading, community coping systems overwhelmed	Clustering of infections in households/ communities, dependency ratios, gender inequalities, social cohesion; effective prevention, care and support programmes; ethical and legal environment	Social inclusion, welfare maintenance, VCT, psychological support, poverty alleviation and assistance programmes. Legal, ethical and human rights programmes
National social and economic impact	Reduction in quantity and quality of labour in formal, informal and public sectors; reduction of productivity and national income	Political commitment, morbidity and mortality in productive labour force; clustering in occupations and geographically; structures of labour market and the economy; effective prevention, care and support programmes; ethical and legal environment	Governance, productivity maintenance, fiscal and financial policies, labour market planning, social services planning, infrastructure maintenance. Mainstreaming HIV/AIDS in all development programmes
National stability affected	Economic and social dislocation; political instability at community and national level	Political commitment, effectiveness of earlier policies; effectiveness and types of earlier prevention, care and support programmes	Governance, decentralisation, community survival strategies, mainstreaming HIV/AIDS in all development programmes

Adapted from: Regional project on HIV and development for Sub-Saharan Africa (UNDP)

The importance of knowing these phases of the epidemic lies in the fact that very often national governments deny having an AIDS epidemic starting in their country and therefore do not engage in any of the programmes that are mentioned in the table. They can do so because in the first three stages the effects are felt predominantly at the household and community level, often surrounded by denial and stigma. Moreover, when action is taken it tends to be confined to the health sector. As the table shows, responsibility for most of these policies lies with sectors and ministries other than health. An early understanding of this can create a broader consensus on the need for timely expenditure on effective

prevention programmes in a multi-sectoral perspective. The financial implications of ignoring the epidemic are shown in figure 1.

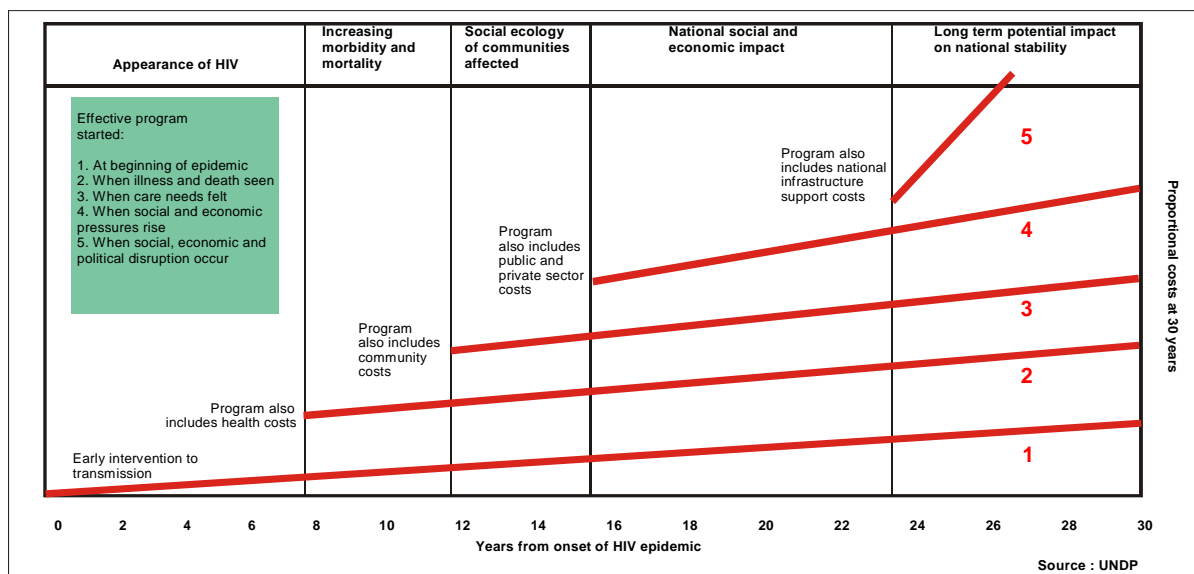


Figure 1: Proportional cost of delaying the start of an effective programme

Countries that have proved most successful in combating AIDS are those, such as Uganda, that have broken through the wall of denial at an early stage, and made a central commitment to mobilising society. Denial is the most dangerous 'side effect' of the HIV pandemic because it paralyzes communities and prevents them from fighting back.

4. Linkages between HIV/AIDS and water, sanitation and hygiene: different perspectives

Because the HIV/AIDS epidemic has so many different faces and dimensions, the relationship between HIV/AIDS and water, sanitation and hygiene is rather complex. The linkages are categorized here according to perspectives that are most commonly used by development practitioners. Each perspective provides has different arguments and strategies for addressing the linkages.

4.1 The consumer perspective

Easy access to safe and sufficient water and sanitation is indispensable for people living with HIV/AIDS and for the provision of home-based care to AIDS patients. Cultural preferences mean that the majority of AIDS patients are being cared for within their local communities. Water is needed for bathing patients and washing soiled clothing and linen. Safe drinking water is necessary for taking medicines, while nearby latrines make life more tolerable for weak patients. Finally, water is needed to keep the house environment and latrine clean in order to reduce the risk of opportunistic infections. Water and sanitation provision increases the sense of dignity of both patients and caregivers.

Public health systems in many high prevalence countries have difficulties coping with the increased demand for health services. This is even more a problem in those countries where services are in a state of deterioration for various reasons, including the effects of the epidemic (see section 5.1). The burden of care is made even heavier when activities such as fetching water collection and laundry are done far from the home. A 2002 survey of South African HIV-affected households found less than half had running water in the dwelling and almost a quarter of rural households had no toilet¹. The high-prevalence countries in East Africa (Kenya, Uganda and Tanzania) have an average rural water coverage of only 40 percent².

A case study by Mvula Trust in Limpopo Province in South Africa showed that as a result of breaking down of public water services breaking down, residents with already weak immune systems were even forced to revert to unprotected water sources³.

¹ UNAIDS (2004) 2004 Report on the global AIDS epidemic

http://www.unaids.org/bangkok2004/GAR2004_html/GAR2004_10_en.htm#P1227_268579

² Kiongo, John Mbugua (2005), The Millennium Development Goal on Poverty and the Links with Water Supply, Sanitation, Hygiene and HIV/AIDS

³ Kgalushi, R., Smits, S. and Eales, K. (?), People living with HIV/AIDS in a context of rural poverty: the importance of water and sanitation services and hygiene education. A case study from Bolobedu (Limpopo Province, South Africa)

The following powerful speech by the director of the South African National Association of People living with AIDS (NAPWA), Nkululeko Nxesi, is an advocacy for better water and sanitation services. It was presented at a national sanitation workshop convened by the South African NGO, Mvula Trust, in August 2002 and has been slightly shortened.

HIV / AIDS, water and sanitation – why basic services matter

NAPWA is a National Association of People living With HIV/AIDS. Our core business is to mobilise and facilitate care and support to people infected and affected with HIV/AIDS. We provide capacity building to people living with HIV/AIDS through different programs. Through different projects and programs like de-stigmatisation and disclosure and campaigns, we do HIV/AIDS awareness activities.

Is there a link between HIV/AIDS, water and sanitation? Does the delivery of basic services, including water and sanitation, matter in fighting HIV/AIDS? NAPWA's answer to these questions is a big yes. Our analysis is that HIV/AIDS is not just a medical and health but a socio-economic development issue. We will be failing if we take a very narrow approach in fighting the impact and spread of HIV/AIDS.

What is a narrow approach? According to NAPWA, it is to only concentrate on HIV/AIDS awareness campaigns and on calls for the provision of anti-retrovirals. We need to quickly acknowledge and move to address HIV/AIDS in a very broad and holistic manner.

What is a holistic approach? According to NAPWA it is to address the socio-economic development imbalances that exist amongst the South and North poles, the gross under- development of the third world countries and poor living conditions of the South African townships and rural areas with their populations. A holistic approach is to invest in the development of proper, effective and efficient health care system. It is to educate our youth in life skills so that they can take control of their health and sexual rights. It is to create jobs for the jobless. It is to recreate family structures as core for any society. It is to do with the social fiber regeneration of our society and its people. It is to provide treatment including basic and Antiretroviral (when necessary) care and support and so on.

Most importantly, a holistic approach in fighting HIV/AIDS is to ensure that our people have access to basic and proper living conditions. If people do not have access to basic nutrition, and proper health care services, they will be vulnerable to life threatening diseases including HIV/AIDS. HIV/AIDS thrives in poverty stricken conditions and environments.

Access to clean water and proper sanitation is one of the yardsticks to measure the level of access to basic living conditions. It is under this background that we as NAPWA see a close link between HIV/AIDS, water and sanitation. If there is no access to enough clean water and proper sanitation facilities, people and communities infected and affected become more vulnerable to HIV/AIDS. Let me try to explain this more.

Water and sanitation is key in ensuring that one is healthy. You cannot cook with nor drink unsafe water because of the risks of being infected with diseases. Opportunistic infections like diarrhoea are also caused by lack of clean water and proper sanitation. Ensuring that people living with HIV/AIDS have access to clean water and sanitation reduces the risk of developing diarrhoea and cholera. Many people living with HIV/AIDS have died because of these diseases. Provision of clean water and sanitation becomes one of the strategies to manage opportunistic infections.

The cycle of the epidemic is at a stage where many people are falling sick. Through home based and palliative care, people are looked and cared for. One of the important ingredients of care is water. Access to water within the family will ensure that members of the family do not struggle to get water for care. Affected families need water to do laundry for the sick. Without access to water this service will be difficult to implement.

When people are approaching or are at a terminal stage it means that they will frequent toilets to relieve themselves. Access to sanitation facilities like toilets becomes important. People must not have to travel any distance to access a toilet. A sick person cannot afford to do that, as this will drain him or her. Lack of access of clean water and sanitation is the loss of one's dignity. Those people without toilets go to bushes or open places to relieve themselves. This is unacceptable and violates one's human rights and dignity.

Having no proper sanitation means that there is a vicious cycle of poverty, diseases and bad hygiene. Decomposing human waste in an open space means that people are more vulnerable to catch diseases. People living with HIV/AIDS need to stay in a very healthy and hygienic environment, free from harmful bacteria and germs.

One of the important interventions in fighting HIV/AIDS is the protection of human rights of people living with AIDS. Clean water and sanitation is one of these human rights. It is clearly stated in the South African constitution and DWAF's water and sanitation strategy documents and policies that every citizen of this country has a right to access 25 litres of water a day and a toilet. Lack of access to clean water and sanitation is a violation of health rights of people living with HIV/AIDS.

Lack of access to clean water and sanitation means that the immune system of an HIV positive person will be compromised. Everyone regardless of their HIV positive status needs water. But for a person who is HIV positive clean water and sanitation becomes more important. Today people talk of treatment for HIV positive people. Part of this treatment is in a pill form. One needs water to take this treatment. Taking treatment without clean and healthy water can be counter productive to the intended good and noble reasons of taking treatment. People, particularly scientists, have argued that in the first world countries treatment - anti-retroviral drugs - is working. One of the reasons is that they have access to a high level of clean water and proper sanitation. While many people in the poor communities are struggling to get even five litres of water a day,

communities in the first world countries and rich South African citizens enjoy mineral water - which is healthy, but expensive. This is why we believe that it is possible and necessary for the government to ensure that every one in this country has access to clean water and sanitation.

As NAPWA we therefore call for the government to speed up the process of providing water and sanitation to the people on the ground. It is against this background that we applaud the Mvula Trust for its tireless efforts to build water and sanitation schemes in our communities. However there has to be a vigorous, and radical bias towards our rural population. This is where the scourge and impact of the epidemic is felt.

More important is the issue of developing capacity in our people. We therefore urge the government that its water and sanitation implementation approach involves communities in project planning, implementation, monitoring and evaluation. This will not only provide our people with clean water and sanitation, but also with dignity and a sense of living and ownership of these basic but fundamental services. People living with HIV/AIDS should also be involved in all these processes.

Lastly, one practical suggestion about a partnership between Mvula Trust and NAPWA is to integrate HIV/AIDS awareness activities into your community programs. As people think through water and sanitation issues, as people are busy building water schemes, they must be thinking about HIV/AIDS. But most importantly we need to educate people living with HIV/AIDS about the importance of taking clean water and having proper sanitation services. This is one of NAPWA's key advocacy issues.

Thank you.

Consumers living with HIV/AIDS have even more urgent water needs, both in terms of both quality and quantity. However, they are, however, often impoverished and, which means that their ability to pay for water services decreases, while they lack "voice" to influence water supply decisions due to marginalization, discrimination and stigmatisation. Examples of people living with HIV/AIDS (PLWHA) organizing themselves to defend their interests are as yet largely limited to South Africa.

4.2 The health perspective

The main mandate of the water supply sector has always been to improve people's health by providing access to safe water supply and sanitation. With HIV/AIDS, this becomes even more pertinent because diarrhoea and skin diseases are among the most common opportunistic infections. For some patients, diarrhoea can become chronic, weakening them even more. In order for HIV infected people to remain healthy as long as possible and for people with AIDS to reduce their chances of getting diarrhoea and skin diseases, adequate water supply and sanitary facilities are of the utmost importance. Clean water is also needed to take medicines.

Hygiene promotion and education

It is now widely accepted in the water and sanitation WSH sector that availability of safe water and sanitation does not automatically lead to improvements in health, but that hygiene promotion and appropriate hygiene behaviours are required as well. Only the combination of improved water handling and sanitation practices, personal hygiene, domestic hygiene, food hygiene and safe wastewater disposal and drainage that will effectively reduce water and sanitation related diseases. This is even more important for People Living With HIV/AIDS (PLWHA– this includes households/family members of HIV positive people) this is even more important. Therefore, hygiene education must be specifically targeted at caregivers and volunteers involved in home-based care and must be one of the elements in training for home-based care. Currently, this is rarely done.

Access to water and latrines

In a HIV/AIDS context it is especially important that water supply points and latrines are easily accessible and close to where they are needed. This not only reduces the burden of long-distance water collection, for example, fetching water on care-givers or those who are weak. Critically too, it cuts the risk of girls and women being raped while fetching water or relieving themselves in remote places, and thus reduces vulnerability to infection with HIV. In addition, the design of water systems needs to take into account that those fetching water are now often children or older people who have particular requirements (pump handles not too high, pumping not too heavy, the walls of the well not too high etc.). Water collection tasks are increasingly falling on children and the elderly as a consequence of AIDS.

Infant feeding

Clean water is crucial for infant feeding. If a mother is HIV positive, there is a one in three 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 to persuade infected mothers not to breastfeed the child, but this has proven to be very difficult for social, cultural and economic reasons, including stigma, tradition and the cost and availability of powdered milk, stigma and tradition. Also, the chance of a child dying from diarrhoea rises when formula feeds are not prepared with clean water, or when cleaning and water handling practices are not hygienic.

Incorrect health beliefs

There are a large number of incorrect health beliefs that contribute to stigmatisation of people living with HIV/AIDS. Examples of such misconceptions are:

- People can become infected with HIV/AIDS due to groundwater pollution near burial sites (Engelbrecht (1998); Ashton and Ramasar (2001) or by washing of sanitary napkins (Molefe and Appleton 2001).
- People (playing children) can become HIV infected through poor waste disposal practices: condoms and sanitary napkins. (Molefe and Appleton 2001).

The HIV virus is very fragile and cannot be spread in this way. However, a discussion on such beliefs should be encouraged during hygiene promotion activities. Ignoring these beliefs will not diminish their existence and hence will not reduce stigma and discrimination.

4.3 The gender perspective

It is increasingly clear that gender roles and gender relations influence the extent to which women and men, girls and boys:

- Are vulnerable to HIV infection;
- Can access quality treatment and care; and,
- Are affected by the negative social and economic consequences of HIV/AIDS.

Unequal power relations between men and women are a major factor contributing to the spread of HIV / AIDS. Sex is often not consensual, and women and girls are often not in a position to persuade their sexual partner to use a condom. Women's anatomy, and some cultural practices, (e.g. infibulation and dry sex) makes them more susceptible than men to infection by the virus. In some African countries, five times more women than men in the age group 15-24 are infected⁴.

There is also gender imbalance in the social, economic and political impacts of the HIV/AIDS epidemic. Women and girls are affected disproportionately because of their socially defined roles. Everywhere, women are bearing the main burden of AIDS care. They take care of family members, across generations, beyond their own children, partners, parents and friends. Elderly women are taking the main burden of care of AIDS orphans. This has profound emotional, physical and other implications. One consequence is 'time poverty', whereby water collection and other reproductive tasks become increasingly burdensome, and reduce time available for other activities. This is particularly problematic for women that are elderly or suffer from ill health and girls needing time to go to school.

School enrolment rates for girls tend to decrease in communities with high prevalence rates, as girls are required to take on a wider range of household and domestic responsibilities. This in turn decreases access to information, knowledge and income generating opportunities, which can in turn increase susceptibility to infection.

Several useful resource packs and tool boxes exist on gender and HIV/AIDS UNIFEM/UNAIDS Web portal on HIV/AIDS and gender (<http://www.genderandaids.org/>).

⁴ Detailed information on integrating gender can be found at http://www.who.int/gender/hiv_aids/en/Integrating%5b258KB%5d.pdf

Easy and adequate access to water supply and sanitation can assist men and women to cope better with the effects of HIV/AIDS. By improving access to water supply and sanitation, some of women's practical needs are met. Providing water for productive use can also be important strategically as it can strengthen their options for sustainable livelihoods (see section 4.5). Good access may also allow girls to continue their schooling. Finally, ensuring gender-balanced decision-making in water supply development can lead to 'empowerment' that might contribute to more balanced gender relations.

4.4 The community-management perspective

Community-management approach in the water and sanitation sector

The community-management perspective that has been applied within the water and sanitation sector for the last 20 years is particularly relevant in a context of HIV/AIDS. This approach puts communities in the driver's seat, and requires government institutions to be demand-responsive, to build capacities (especially problem-solving skills) and to create an enabling environment by providing technical support, formation of partnerships and supportive policy frameworks.

Community HIV/AIDS competence

Experience in the water and sanitation WSH sector has shown that there is a relationship between the level of community organisation, empowerment and autonomy and the level of sustainability of water and sanitation interventions. Important factors here include measures that promote gender equality, greater socio-economic equity, community cohesion, stable traditional leadership and respect for ethnic differences.

As can be expected, these same factors also define the ability of communities to cope with the impact of HIV/AIDS and to prevent new infections. Communities with a high HIV/AIDS prevalence are often characterised by unemployment or limited income-generating opportunities, high mobility, labour migration, ethnic strife, social inequalities and a weakening economic basis. They also lack capacity to decrease the environment of risk. What in the water sector is termed 'community management' can be compared to what is called 'community HIV/AIDS competence' (<http://www.uneca.org/adf2000/theme3.htm>). In what is described as an HIV/AIDS competent society, individuals, families and the community as a whole have accepted the reality of HIV/AIDS. They assess how this affects the different aspects of their life and take concrete measures to minimise its impact: they have adapted to living positively with AIDS.

Strong community-based organisations that are dedicated to social equity, essential social service provision (e.g. water supply) and community health promotion are the main pillars of HIV competence. They increase social cohesion and thereby reduce a population's vulnerability to HIV. Community competence is a collective and not an individual attribute. However, the effects of increased community HIV competence are felt at the level of individuals: the results of greater competence are less HIV transmission, less isolation and stigmatisation, and more care and support for people in need. Community competence is

also defined by the partnerships that are forged by institutions surrounding the community, the public sector, the private sector and the NGOs, and the way they work together.

Activities to promote community-based prevention of HIV infection and hygiene promotion make use of similar methods. In both domains, the dominant approach to behaviour changechanging behaviours, whether for preventingon transmission of HIV transmission or transmission of water and sanitation related diseases, has focused on awareness raising and education for individual behaviour change, with an emphasis on sending messages (one-way communication). Although this usually has resulted in higher levels of knowledge, it has not lead to significant or lasting changes in behaviour.

The community- competence approach changes the emphasis from providing messages to building community capacities. Communities are helped to assess risks and barriers to prevention and to develop solutions and action plans. KIT has prepared a toolkit for UNAIDS on practices and techniques for local responses to HIV/AIDS. in whichIt includes techniques for community mobilisation and management are given as well as short overviews of community level interventions (http://www.kit.nl/frameset.asp?/development/html/publications_db.asp&fmr=1&ItemID=1462). This is also at the core of new approaches developed in the water sector for building community capacities to manage water supplies in a sustainable manner and to improve hygiene behaviour.

4.5 The poverty alleviation perspective

The eight Millennium Development Goals (MDGs) – which range from halving extreme poverty to halting the spread of HIV/AIDS and increasing access to water supply and sanitation, all by the target date of 2015 – form a blueprint agreed to by all the world's countries and all the world's leading development institutions (<http://www.un.org/millenniumgoals/>).

HIV/AIDS is one of the biggest obstacles for reaching global poverty reduction targets and development goals. (See the HIV/AIDS Implications for poverty reduction paper from the UNDP (<http://www.undp.org/dpa/frontpagearchive/2001/june/22june01/hiv-aids.pdf>) and the AIDS Poverty Reduction and Dept Relief Toolkit from UNAIDS(<http://www.unaids.org/publications/documents/economics/agriculture/JC536-Toolkit-E.pdf>).

An interesting case study from Kenya exists onlinks the Millennium Development Goal to eradicate extreme poverty and hunger, and the links with water supply, sanitation, hygiene and HIV/AIDS (<http://www.irc.nl/page/16127>)

Figure 2 shows that how poverty increases vulnerability to HIV infection, and AIDS exacerbates poverty. Conditions related to poverty, such as unemployment, low sense of self-worth and a sense of fatalism, have been demonstrated empirically as being to be enormously significant in vulnerability to HIV infection. Similarly, poor access to basic

services such as education, health care and water and sanitation – , that are themselves indicators of poverty – , also increase vulnerability to HIV infection.

Different impact for rich and poor

Although HIV/AIDS affects both rich and poor, the impact is different. Richer households are likely to shift their budget allocations, but this may be temporary. Poor households often adopt coping strategies that are irreversible and will affect the survival of the household members left behind (e.g. sale of productive assets). In addition, some coping strategies - such as migration - may increase their risk of individuals' risk of infection. Finally, poverty increases female poor women's vulnerability to infection, as selling sex may be the only way to survive with their children.

Several of the poorest countries, such as Ethiopia, Mozambique, Tanzania, Uganda and Zambia, have not only a low coverage of safe water supply and sanitation but also a high HIV/AIDS prevalence. Increasing financial constraints will affect the provision of water and sanitation. They therefore need support from the international community to develop integrated strategies to alleviate poverty and mitigate the impact of HIV/AIDS, including provision of basic services.

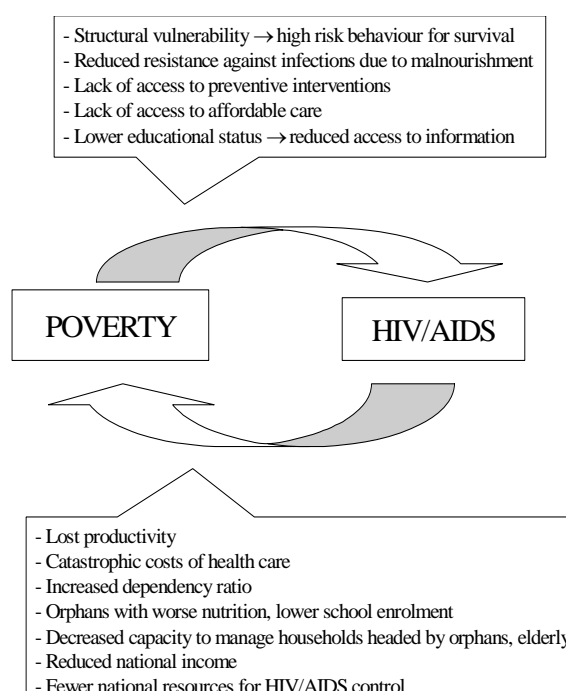


Figure 2: Relationship between HIV/AIDS and Poverty

Adapted from: AIDS, poverty reduction and debt relief – A toolkit (<http://www.unaids.org/publications/documents/economics/agriculture/JC536-Toolkit-E.pdf>) for mainstreaming HIV/AIDS programmes into Development Instruments, UNAIDS Best Practices Collection – key material, UNAIDS/World Bank, March 2001.

Water is not only a basic need but also has strategic importance for poor people and especially those infected or affected by HIV/AIDS. Adequate water supply saves labour and energy; contributes to diversification of income; generates nutritional value; reduces expenditure on health, etc. It thus has implications for sustainable livelihoods.

Orphans and vulnerable children and their caregivers

The provision of safe water and sanitation is a core element in the International Framework for Action for the Protection of Orphans and Vulnerable children. The framework was developed by UN agencies, bilateral donors and international child focused NGOs⁵. In many communities hard hit by HIV/AIDS, access to safe water and sanitation has been identified as a severe problem for orphans, other vulnerable children and their families. In some places, this issue is at the core of health and survival, both for children and their parents. Better access to safe water also reduces the work demands on vulnerable children and their caretakers. Proper hygiene and food handling are important components of information provided to caretakers.

Sustainable Livelihoods Approach

The Sustainable Livelihoods Approach (SLA) can be used to help to understand the impact of HIV/AIDS in a specific context along with other factors affecting livelihoods and poverty, the "Sustainable Livelihoods Approach" (SLA) can be utilised. In the SLA, good health and safe water are considered as "assets" and thus closely inter-linked. Water is valued for its multiple functions and strategic importance, both for the household as a whole and the individual. In Sub-Saharan Africa the following HIV/AIDS household coping strategies have been identified from an SLA perspective:

- Strategies aimed at improving food security
- Strategies aimed at raising, supplementing and diversifying income in order to maintain household expenditure
- Strategies aimed at alleviating the loss of labour (White and Robinson 2000).

Clearly, improving water supply can contribute to all three strategies (compare Nicol 2000 (<http://www.livelihoods.org/cgi-bin/dbtcgi.exe>) and UNDP activities to support UN special session on HIV/AIDS (<http://www.undp.org/dpa/frontpagearchive/2001/june/22june01/hiv-aids.pdf>)). To ensure that the provision of a water supply has maximum impact on the lives of the poor and vulnerable (including people living with and affected by HIV/AIDS) a new approach is needed. One that takes as its starting point not a sectoral, supply-driven approach, but rather a holistic demand- responsive one⁶.

⁵ Global Partner Forum (2004), The Framework for the Protection, care and support of orphans and vulnerable children living in a world with HIV and AIDS.

⁶ P. Moriarty (2004), Water, Sanitation and Livelihoods Based Approaches, in: Water and Sanitation Update, vol. 11, no.2

Poverty Reduction Strategy Papers

Poverty Reduction Strategy Papers (PRSP), written by countries seeking to become eligible for external financial support, are currently guiding poverty alleviation interventions and serve as the country's agenda for poverty reduction. They are supposed to be developed in dialogues between involving government, the private sector and civil society organisations. In practice, participation tends to be limited and the poorest and most marginal groups are usually inadequately targeted.

A review of 21 African PRSPs in 2001 showed that:

- Analyses are generally weak;
- Only 33% highlight HIV/AIDS as a cause of poverty;
- 48% limit HIV/AIDS to a health problem;
- 19% make no reference to HIV/AIDS in poverty analyses;
- Where HIV/AIDS is identified as a development problem, the issue is not discussed in any detail

(<http://www.unaids.org/publications/documents/economics/agriculture/JC536-Toolkit-E.pdf>).

Integrating HIV/AIDS into Poverty Reduction Strategies helps to create the necessary policy and planning framework to develop a comprehensive, multi-sectoral and adequately funded response to the epidemic. The impact of HIV/AIDS, both on basic service delivery organisations and on the receiving communities, can then also be addressed more effectively (<http://www.undp.org/hiv/docs/HIVPRS.doc>). Generally, water policies that are made "pro-poor" will help to mitigate the effects of the epidemic.

See for more information on poverty and HIV/AIDS: Loewenson, R. and Whiteside, A. (2001) (<http://www.undp.org/dpa/frontpagearchive/2001/june/22june01/hiv-aids.pdf> and <http://www.unaids.org/publications/documents/economics/agriculture/JC536-Toolkit-E.pdf>); Bjorkman, H. (2002) (<http://www.undp.org/hiv/docs/HIVPRS.doc>) and Cohen, D. (2002) (<http://www.undp.org/hiv/publications/issues/english/issue27e.html>).

4.6 The rights-based perspective

The linkages between water and sanitation, and HIV/AIDS are very obvious when looking through a human rights lens. Specific rights pertaining to the water sector for people infected or affected by HIV/AIDS pertaining to the water sector are:

- The right to the highest attainable standard of physical and mental health
- The right to an adequate standard of living
- The right to share in scientific advancement and its benefits
- The right to participate in public and cultural life
- The right to non-discrimination, equal protection and equality before the law
- The right to freely receive and impart information

- The right to social security, assistance and welfare⁷

When in a HIV/AIDS context, when people's access to water supply and sanitation is ensured as a right, a whole range of political, civic, cultural, social and economic rights will also be realized, and it will become clear how these rights are indivisible and linked. After all, HIV/AIDS is not a health but a development problem.

UNAIDS and its eight co-sponsoring organisations United Nations Children's Fund (UNICEF), the United Nations Development Programme (UNDP), the United Nations Population Fund (UNFPA), the United Nations Education, Scientific and Cultural Organization (UNESCO), the World Health Organization (WHO), the United Nations International Drug Control Programme (UNDCP) and the International Labour Organization (ILO), as well as major bilateral donors, are putting efforts into embedding human rights principles in HIV/AIDS prevention, treatment, care and support (rights, ethics and law (http://www.unaids.org/whatsnew/press/eng/pressarc02/Humanrights_100902.html)).

Similarly, a human rights perspective has been adopted in the international water and sanitation sector. The main policy commitment on the Right to Water is General Comment No. 15 which was adopted by the UN Committee on Economic, Social and Cultural Rights at its twenty-ninth session in November 2002 (UN Doc. E/C.12/2002/11). The Comment provides guidelines for States Parties on the interpretation of the right to water in two articles of the International Covenant on Economic, Social and Cultural Rights - Article 11 (the right to an adequate standard of living) and Article 12 (the right to health) (http://www.righttowater.org.uk/code/no15_2.asp). Access to safe water and sanitation is considered not only a basic need but also a right. The Water Supply and Sanitation Collaborative Council through Vision 21 (http://www.wsscc.org/load.cfm?edit_id=45) advocates a holistic approach, whereby hygiene, water and sanitation are acknowledged as a human right, related to human development, the elimination of poverty, environmental sustainability and the integrated management of water resources.

At the Johannesburg World Summit for Sustainable Development, delegates of the "The Civil Society Action Programme on Water" launched a statement saying that secure access to sufficient safe water and sanitation to meet basic human needs, including water for small-scale productive use to support livelihoods strategies, must be considered a human right (<http://www.irc.nl/source/item.php?id=741>).

It is evident that, although most developing countries have endorsed the major human rights conventions, there are often enormous gaps between international human rights standards and the reality on the ground, even if they have translated them into national laws and policies. In order to put abstract human rights concepts into practice, various

⁷ Wegelin, M. and Kamminga, E. (2005). The linkages between water & sanitation sector and HIV/AIDS from a rights perspective, article submitted to Health and Human Rights, Harvard School of Public Health

Rights-based approaches (RBA) to development have been developed⁸ formulated. Essentially, a Rights-based approach to development aims at improving governance by enabling those who are most affected the most to articulate their priorities and claim genuine accountability from duty bearing institutions. Applied to the water sector, in order to make rights real, both institutional change is required within the sector (state and non-state actors) and the “voice” of water- using citizens, including people living with HIV/AIDS, (PLWHA) must be built, so they can claim their rights. Such transformation may seem difficult or even impossible in a context where the capacity of service providers is already eroded by the HIV/AIDS crisis and resources are becoming increasingly scarce, but this is in fact more a governance than a resource issue⁹

Applied to the water and sanitation sector, a rights-based approach will puts emphasis on establishing minimum standards to which all people are entitled. These standards need to be contested and adapted to an HIV/AIDS context. Core in this approach is also en, by assuring the rights of the poorest and most vulnerable, (including people living with HIV/AIDS and their care takers (elderly; women; orphans and vulnerable children). This is particular important in situations of 1) water scarcity resulting in increasing competition and 2) privatization of services¹⁰.

A particular human rights' violation that needs to be mentioned is the stigmatisation and discrimination of infected people and their caregivers. Infected people and their families can become excluded from community-based water decision-making. Extra effort is therefore needed to ensure that the voices of people living with HIV/AIDS are heard, either directly or indirectly by representation (see section 7). This also has implications for the way people in water and sanitation agencies work. This issue is discussed in section 5. Actively involving people affected by HIV/AIDS has proved to be also an effective strategy to address taboos around the disease and to create more openness. People living with HIV/AIDS can also be employed very effectively in water and sanitation improvement programmes, particularly as peer educators – with the added benefits of breaking down prejudices and providing income- generation opportunities.

4.7 Conclusion

The above shows that nNo matter from which perspective you use to look at the linkages between water and sanitation and HIV/AIDS, they are very important and, complementary. and all All need to be taken into account. Safe water and sanitation are a basic need and a right for everybody, but for people affected by HIV/AIDS they are crucial for helping them

⁸ Nayamy-Musembi, C. and A. Cornwall, 'What is the “rights-based approach” all about? Perspectives from international development agencies,' IDS Working Paper 234 (Brighton: Institute of Development Studies, 2004).

⁹ Mukhopadhyay, M. and S. Meer, Creating voice and carving space: redefining governance from a gender perspective (Amsterdam: KIT (Royal Tropical Institute), 2004).

¹⁰ Filmer-Wilson, E. (2005), The Human Rights-based Approach to Development: the Right to Water. In: Netherlands Quarterly on Human Rights, Vol.23/2, 213-241

to stay in good health for longer, for facilitating care for ill patients and for increasing basic human dignity. This also 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.

Because most caregivers are women, they must be entitled to have a say in all stages of planning and implementation of service provision. Often very young and very old women take over much of the water and sanitation- related tasks, and hygiene education and technology selection must be adapted to their priorities and requirements.

Community-based approaches that are already accepted as the best way to ensure an equitable and sustainable water service can at the same time function as an entrance to promote community-based prevention and mitigation activities. The principles are the same, the issue at hand more sensitive. It requires well-trained, motivated and non-stigmatising facilitators.

A poverty- alleviation framework can ensure that the socio-economic and equity aspects that play a role in water, sanitation and HIV/AIDS are addressed. It can also ensure that these issues are incorporated in the policy instruments, such as PRSPs, that guide the strategies for poverty alleviation of many countries. A rights-based perspective and approach provides a useful framework for analysing and addressing the linkages between HIV/AIDS, water and sanitation.

5. Impact of HIV/AIDS on water and sanitation organisations 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. These difficulties are partly caused by staff infection rates that can be as high as 30% in some high-prevalence countries. The implications in terms of human resources, skills, training, health insurance and benefits are enormous, let alone as is the emotional burden. Yet, due to the stigma associated with HIV/AIDS, only very few organisations (public, private and NGOs) have developed an internal HIV/AIDS policy and/or created an atmosphere that facilitates prevention and action to mitigate the impact of the disease. The commercial sector has been quicker to develop such policies as it recognises the internal cost-benefits. Generally, organisations find it far easier to focus on the impact of HIV/AIDS on their services than on their staff, as this does not require sensitive internal analysis. However, it is doubtful if measures taken to reduce 'external' impact on service provision will have the desired effect if the internal impacts are not addressed at the same time. Compared with other sectors, the Water and Sanitation Sector (WSS) sector compared to other sectors is lagging behind in addressing the impact of HIV/AIDS.

A very useful toolkit for impact assessment has been developed by two South African bodies, ABT Associates Inc., South Africa, and the Health Economics and HIV/AIDS Research Division of the University of Natal (HEARD), now operational as HIVAN (Centre for HIV/AIDS Networking). This toolkit targets government ministries and departments, but can also be used by other organisations. The aim is to assist priority sectors to identify areas where they are vulnerable to the impact of HIV/AIDS and to suggest specific steps that can be taken. The toolkit has a generic section covering: understanding of HIV/AIDS; why HIV/AIDS is a governance issue; HIV/AIDS and Ministry employees; and Planning tools.

In addition, there are tools for specific departments/sectors. They can be found on the HIVAN website under resources 8. Although there is no special tool for the water sector, generic planning tools can easily be adapted to deal with special requirements for HIV/AIDS in the water sector.

5.1 Internal organisational impact

The loss of human resources (<http://www.hivan.org.za/>) puts the provision of essential services such as education, health, agricultural extension, water supply and sanitation, at risk. All water and sanitation organisations are likely to be affected: governmental agencies (water departments; local government), civil society (NGOs) and private sector (water companies). In the water sector, these kinds of effects have so far been rarely been documented. An exception is the following announcement by a NamWater, Namibia's largest water purification company, in a local newspaper.

Water Company Counts Cost of HIV/AIDS

NamWater says HIV/AIDS is crippling its operations and they are experiencing a loss of productive hours and increasing absenteeism, the 'Namibian' newspaper reported on Friday. Speaking at a company AIDS commemoration in Windhoek, Chief Executive Officer Helge Habenicht said HIV/AIDS related deaths were resulting in a high staff turnover.

NamWater's HIV/AIDS Co-ordinator, Gilmour Daniels, told IRIN on Friday that they did not exactly know the extent of the impact of HIV/AIDS but would conduct a survey to assess the full impact on the utility's operations. Daniels said they were feeling the effects of HIV/AIDS within the company everyday as some workers were open and willing to disclose their HIV/AIDS status. The company has already trained 60 peer educators and distributed 8,000 male condoms among the workforce. Daniels said that the company was prepared to spend more to prevent the further spread of the disease and to provide support for employees living with HIV/AIDS.

Daniels said that the company was working with AIDS Care Trust (ACT), a non-governmental organisation, to set up a HIV/AIDS programme in the company. ACT provides support for people living with HIV/AIDS as well as training and information education in the workplace. Trustee Magreth Naris told IRIN that it was important that businesses create a positive preventative image around HIV/AIDS in the workplace. She said that more businesses in Namibia were becoming aware for the need to support their employees living with HIV/AIDS and provide prevention campaigns, although in some workplaces, workers were discriminated against because of their HIV/AIDS status.

Source: UN Integrated Regional Information Network - July 28, 2001
(<http://www.aegis.com/news/irin/2001/IR010742.html>)

An agency's internal analysis covers should include an assessment of the impact of HIV/AIDS on agency staff and the implications of this for the management and planning of the organisation. The objective of the internal assessment is basically to develop 'an AIDS competent organisation' because the working environment has influence on people's the staff's social attitude and values and it binds people by forming a shared identity. Openness at work will lead to more openness at home and will positively influence social interaction and peer group pressure. Existing committees in the organisation can be mobilised in support of HIV/AIDS internal programmes, if given a clear mandate to do so and if backed by the management.

Identifying internal impacts involves understanding the extent and consequences of infections among staff. Several key areas will need to be looked at:

- Staff infections including prevalence – (based on estimates available in the country), future rates of infection – (based on national projections), differences in susceptibility among staff (in terms of gender, age, wealth, education) and knowledge, attitudes and practices towards prevention and treatment.

- Staff morale including the personal impact on staff, the number of families affected, co-workers affected, the extent to which impact of HIV/AIDS is discussed at work, the degree to which it leads to stress, or overwork, openness about HIV status, degree of support from the organisation to those affected.
- Staff working environment profiles, including the mobility of staff, the number of nights away in the field and postings away from families, all of which may increase susceptibility to infection.
- Sick family members and the extent to which this leads to stress, poor morale, time off work, financial pressures, etc.
- Gender issues such as whether assessment and intervention strategies are sensitive to the different needs and responses of men and women; and what factors affect women staff to protect themselves from infection.
- Absenteeism and productivity, including present and projected sick leave, compassionate leave and leave for funerals and the implications for productivity. Organisations should look at the degree of flexibility in allocating substitute staff; and the key areas that are vulnerable to stoppages or bottlenecks, because key personnel or activities have been affected.
- Recruitment and training, including trends in staff turnover, recruitment and training costs, procedures designed to deal with pressures created by HIV/AIDS, and planning and monitoring of ongoing skills requirements.
- Benefits, including a review of the expected impact on future claim levels and costs for items like medical insurance, sick and compassionate leave, death and disability cover, funeral benefits and early retirement.
- Existing organisational response, including whether there is an HIV/AIDS policy that is followed and addressed by managers; services available to support affected and infected staff; and committees, teams or focal points responsible for HIV/AIDS, that are trained and have a budget.

One study in Malawi comparing several Ministries showed that Water Department staff had the highest HIV infection rate. High mobility of agricultural extension staff was identified as a particular risk factor and this might be applicable for the Water Department as well. (...) Cohen, D. (2002). Human Capital and the HIV epidemic in sub-Saharan Africa.

Because HIV/AIDS is such an important workplace issue, the ILO has developed a Code of Practice. The code contains fundamental principles for policy development and practical guidelines from which concrete responses can be developed in the following key areas:

- Prevention of HIV/AIDS,
- Management and mitigation of the impact of HIV/AIDS on the world of work,
- Care and support of workers infected and affected by HIV/AIDS,
- Elimination of stigma and discrimination on the basis of real or perceived HIV status.

The key principles of the Code of Practice

(http://www.ilo.org/public/english/protection/trav/aids/code/keyprinciples_page.htm) and information on the issue of stigma and discrimination can be found here (http://www.unaids.org/html/pub/publications/factsheets03/fs_stigma_discrimination_en_pdf.htm).

A workplace policy should be established with the following guiding principles:

- Staff representation and, where possible, involvement of People Living with HIV/AIDS in the development of the policy,
- Communication of the policy to all staff,
- Continuous review and update in light of changes taking place,
- Monitoring on implementation,
- Evaluation of impact.

The task of an organisation is also to promote prevention. By doing this effectively, staff are enabled to mobilise and motivate their social environment for prevention. Approaches to prevention include:

- HIV prevention education and information,
- Peer education programmes,
- Condom distribution and availability,
- Access to treatment of STDs,
- Adjustment of working conditions to reduce susceptibility,
- Enhancement of women's capacity to negotiate for safer sex,
- Promotion of zero tolerance of sexual harassment within the organisation, with disciplinary measures for offenders.

The toolkit mentioned above provides guidelines on how to address these issues. Another excellent source are two publications by Bill Rau for Family Health International (FHI) and Futures Group: HIV/AIDS and the public sector workforce and Workplace HIV/AIDS Programs (<http://www.fhi.org/en/HIVAIDS/pub/guide/publicsector.htm> and http://www.fhi.org/en/HIVAIDS/pub/guide/Workplace_HIV_program_guide.htm). For all activities to be effective, commitment at the highest level of the organisation is a critical requirement. If this is missing, the effort will fail, as can be seen in organisations where HIV/AIDS focal points are established without sufficient authority or capacity and where the work is just an add-on to the existing workload, without any training for this task.

5.2 Impact on service provision

The external assessment looks at HIV/AIDS impacts on programmes carried out by the organisation (changed needs and demands) and on the possible contribution of those programmes to the spread of HIV/AIDS. Very little documentation is available on the external impact and only four references were found that deal particularly with HIV/AIDS and the water sector:

- Ashton, P. and Ramasar, V. (2001) Water and HIV/AIDS: some strategic considerations in Southern Africa, Pretoria.
- Ondari, J. and Lidonde, R. (2001), The impact of HIV/AIDS on Water and Sanitation Services Delivery, Paper presented at 13th Regional Water and Sanitation Seminar on "Hygiene, Sanitation, Water and HIV/AIDS-Emerging Issues, Nairobi
- Kiongo, John Mbugua (2005), The Millennium Development Goal on Poverty and the Links with Water Supply, Sanitation, Hygiene and HIV/AIDS
- Kgalushi, R., Smits, S. and Eales, K. (?), People living with HIV/AIDS in a context of rural poverty: the importance of water and sanitation services and hygiene education. A case study from Bolobedu (Limpopo Province, South Africa).

These publications point out the problem of increasing service delivery costs and the tariff adjustments that private water companies are expected to make. They also mention the need to develop, test and implement robust and reliable water treatment processes that do not require constant supervision or management. This would help to reduce the potential health risks associated with ineffective water treatment that can be expected as a result of increased mortality of operators of water treatment works.

Other issues that are likely to affect service delivery are:

- loss of skilled staff leading to delays and reduced quality of planning and construction of WS systems,
- decrease in staff, resulting in lower construction capacity,
- decrease in staff, resulting in reduced technical support for operation and maintenance and quality monitoring,
- decrease in staff, resulting in reduced capacity to carry out hygiene education (decrease in water sector staff or staff of the Ministry of Health that is even more overburdened by the epidemic),
- reduced budget, which may affect provision of new systems and financing of community capacity building and hygiene promotion activities,
- declining ability among end-users to contribute to the capital or operating costs of installations,
- reduced morale possibly resulting in delivery of less and lower quality services,
- possible stigmatisation in target communities of staff known to be HIV positive, which may compromise their effectiveness.

The response of water and sanitation organisations to the HIV/AIDS epidemic has so far been limited. Few examples have been found in the water and sanitation sector of systematic ways of addressing the impact on programmes and service delivery, or assessing the impact of the programmes on the spread of HIV/AIDS. An excellent publication on mainstreaming of HIV/AIDS has been prepared for Oxfam by Sue Holden: AIDS on the Agenda: Adapting Development and Humanitarian Programmes to Meet the Challenge of HIV (http://www.oxfam.org.uk/what_we_do/issues/hiv/aids/aidsagenda.htm). This may help water and sanitation organisations to start the process of mainstreaming.

Compared to with the water and sanitation sector, the Agricultural, Educational and Transport sectors have well documented the costs and other implications of HIV/AIDS relating programmes, outputs and goals. Useful publications are:

- Topouzis, D. (2001), Addressing the impact of HIV/AIDS on Ministries of Agriculture: focus on Eastern and Southern Africa, Discussion Paper (<http://www.unaids.org/bestpractice/digest/files/topouzisMoA2011.doc>).
- Cohen, D. (2002), Human Capital and the HIV epidemic in sub-Saharan Africa, (http://www.ilo.org/public/english/protection/trav/aids/download/pdf/wp2_humancapital.pdf) Working Paper 2, ILO Programme on HIV/AIDS and the World of Work, Geneva

Decentralisation and local government

Many high -prevalence countries have a decentralised government or are in the process of decentralisation. This trend results in water service provision becoming the responsibility of local government (who which in its turn often involves in its turn the private sector). In theory, Tthis development provides in theory opportunities for a more holistic and multi-sectoral approach to addressing HIV/AIDS prevention, care and impact mitigation, and also more involvement of affected people in decision making. The linkages between HIV/AIDS and water supply and sanitation WSH could then also more easily be addressed. As yet there are few examples exists of this actually happening.

The implications of HIV/AIDS for local government are not yet well documented. A major concern in decentralization processes is local revenue generation. A study in Namibia on the impact of HIV/AIDS on 5 municipalities came to the following conclusions¹¹.

.....The epidemic will also impact on the revenue generated by Oshakati Town Council. Households infected or affected by HIV/AIDS will be less likely to be able to pay assessment rates and for services received. The demand for some services (e.g., water) is likely to increase over the short to medium term, and then will only continue to grow at a much decreased rate over the longer-term, but with lowered ability to pay. However, for other services, such as the sale of electricity and land, the demand is likely to decline as both the population growth rates decreases and households become impoverished as a result of the epidemic. As the numbers of these impacted households increase, the town's revenue base is eroded.....

5.3 Conclusion

There is much Documentation and guidance are available for mainstreaming HIV/AIDS into internal operations of sector organisations. This showse literature stresses the importance of developing internal policies and strategies – as ultimately all organisations in

¹¹ SIAPAC (2003), HIV/AIDS IMPACT Assessment in 5 Municipalities: Ongwediva, Oshakati, Swakopmund, Walvis Bay and Windhoek

countries with a medium to high prevalence will be affected. Although funds investments are needed to carry out assessments and to develop policies and strategies, these the amounts are not large and can lead to reduced costs at a later stage (for instance with recruitment and training): prevention is cheaper than mitigation. It is important for sector organisations to analyse why they have so far not addressed the internal impact –: Oof course the commitment of management is crucial, but the issue may well go beyond management and be rooted in stigma and fear.

With regard to external impacts, assessments so far point to the increasing cost of delivery and decreasing human resources. But they need to go further, depart starting from a realisation that access to water and sanitation is a right and; that they service providers are duty bearers and minimum standards need to be negotiated and implemented. They need to analyse what happens as a consequence of HIV/AIDS to the strategies that they have been promoting so far, in particular current “demand- responsive approaches” that are based on a willingness and ability to pay. The basic assumptions that underlie these strategies may no longer be valid and may have to be adjusted to the changed conditions in order to deliver services that are appropriate and equitable.

6. Impact of HIV/AIDS on the sustainability of community-based water supply and sanitation systems

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 WSH systems. This is remarkable, as there is increasing evidence exists, that the epidemic affects the entire structure and functioning of both rural and urban households and communities. The following direct and/or indirect effects of HIV/AIDS on the sustainability of water and sanitation systems have been identified so far:

- Reduced ability of water users to pay water fees due to affected households losing their primary breadwinners, overall livelihood insecurity and increased medical expenditures. Expenditure on water has to compete with medical bills and school fees. This can result in people returning to unprotected water sources and the implementation of cost recovery policies being delayed. (Ashton and Ramasar 2001; Ondari and Lidonde 2001 (http://www.internationalwaterlaw.org/Articles/hydropolitics_book.pdf) ; Kiongo, J B (..) (<http://www.irc.nl/page/16127>).
- Reduced ability of water users (especially women) to spend time and energy on management activities. This means that the opportunity and transaction costs of community-based management are increasing (Franks, T. and Cleaver, F. (2002)
- Erosion of community- management capacities due to loss of social capital (loss of knowledge and skills). Increased training costs due to higher turnover of trained community members due to AIDS-related deaths. (Ashton and Ramasar 2001; Ondari and Lidonde 2001). HIV/AIDS erodes the social capital of communities as a whole (White, J. and Robinson, E. (2000) (<http://www.livelihoods.org/cgi-bin/dbtcgi.exe>),
- Affected households may not be able to afford the time or be too weak to participate in planning, decision-making and implementation and their specific needs may not be taken into account. They may face particular difficulties in paying for access to services, and may need cross-subsidisation. This is of particular concern where services are cut-off because tariffs are not paid, prompting a reversion to unsafe water sources.
- Demand- responsive approaches, which require household contributions may serve to exclude the most needy, who may struggle to contribute labour or cash to the project implementation costs.

A catchment management programme in South West Tanzania noticed that

HIV/AIDS caused an under-r representation in decision-making of: a) labour poor households; b) children/youth headed households; and c) elderly women. These categories are never represented on committees (Franks, T. and Cleaver, F. (2002), People, livelihoods and decision-making in catchment management: a case study from Tanzania, in: *Waterlines*, vol. 20. no.3, 7-10)

Clearly, in countries with high or increasing HIV/AIDS prevalence, 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 ability of communities to finance and manage water supply and sanitation. In an context of AIDS context, it is imperative that all installations are robust, affordable and can be sustained without reliance on a declining pool of skilled outsiders. Village level operation and maintenance principles are now more important than ever.

7. Impact of HIV/AIDS on demand for water and sanitation services

HIV/AIDS affects the demand for accessible, reliable and affordable water and sanitation WSH services in a variety of ways. This may have important planning and policy implications.

7.1 Demographic changes

Uncertainties surrounding forecasts of HIV/AIDS-related mortality and population growth rates can complicate the planning and implementation of water supply and sanitation WSH systems. The general trend is that population growth rates and life expectancy are both plunging. Fewer children are being born (HIV reduces fertility) and more children die because they are born HIV positive. Life expectancy is reduced to a level achieved 20 years ago in some countries: the chance that a boy of 15 years of age will die of AIDS is in Kenya 50%, in Zambia 60%, in South Africa 70% and in Botswana almost 90% (UNAIDS, 2000). This situation causes demand for water supply and sanitation to decrease.

On the other hand, demand for services may increase as a result of an urban-rural migration flow, as infected people tend to return to their rural home area to die and orphans are sent to families in rural areas (Ashton and Ramasar 2001; UNAIDS (2002), White and Robinson 2000). There may also be a flow towards urban centres as people move in search of employment opportunities in towns.

The composition of the water user population is changing. Particularly in rural areas, water users are increasingly sick, elderly, widowed or orphaned – with a small but growing number of child-headed households.

7.2 Increased need for water supply and sanitation services at household level

The HIV/AIDS epidemic has implications for both qualitative and quantitative water and sanitation demands. People's needs for clean and sufficient water and sanitation have become even more acute, but often remain often unsatisfied. Their water rights are not respected, protected or fulfilled.

Home- based care requires more water than the 20 liters per capita per day that is considered 'basic access'¹².

A rural woman interviewed in Southern Africa estimated that it took 24 buckets of water a day, fetched by hand, to care for a family member who was dying of AIDS –

¹² Howard, G. and Bartram, J., Domestic water quantity, service level and health. (Geneva, World Health Organisation (WHO), 2003).

water to wash the clothes, the sheets and the patient after regular bouts of diarrhoea¹³

Introduction of appropriate and cheap technologies for safe water supply (e.g. handpumps, spring water protection, rainwater harvesting, home- based treatment Safe Water Systems (SWS), solar disinfection) and sanitation (e.g. SAN plat, VIP latrines or pour flush latrines) are therefore of utmost importance. An evaluation of the impact of Safe Water Systems on the prevention of diarrhoea in people living with AIDS in rural areas showed a significant reduction of episodes and days with diarrhoea. SWS consist of three elements: water treatment with locally produced bleach, safe water storage and behaviour change communications¹⁴.

While per capita demand for both water and sanitation is increasing for both water and sanitation, individual, household and community capacity to contribute labour, to finance and to manage improved water and sanitation WSH services (so called 'effective demand') is decreasing (see 4.1 and 6).

An increase in demand for water is also caused by the need for water for productive use. People who are weakened by AIDS can still be involved in growing of vegetables in kitchen gardens, provided that they do not need to haul water from far away. The same applies to tending of domestic animals and home- based businesses, such as beer brewing.

The Centre for Applied Legal Studies, an NGO which is attached to the law school at Wits University in South Africa put together a legal challenge to the policy the City of Johannesburg (and the privatised water provider Johannesburg Water), of installing pre-paid water meters in the poor Soweto neighbourhood of Phiri. They are challenging the constitutionality of the meters themselves, as well as the discriminatory practices the city uses to have pre-paid meters installed in poor neighbourhoods. They are also challenging the sufficiency of the Free Basic Water policy, which provides, in theory, 25 litres per person per day, which is considered not sufficient for a person living with HIV/AIDS. (information provided by email by Jackie Dughard from CALS)

7.3 Conclusion

In countries with high or increasing HIV/AIDS prevalence, it is necessary to incorporate the demographic effects of the epidemic have to be incorporated into the planning and design of water systems, both in terms of both water quality and quantity. Demand will need to be

¹³ UNAIDS, UNFPA, UNIFEM. Women and HIV/AIDS: confronting the Crisis. (Geneva: UNAIDS, 2004).

¹⁴ Quick R., J. Lule, J. Mermin, M. Freeman, R. Rheingans, P. Kalluri, E. Mintz, The safe water system and AIDS: preventing diarrhea and increasing access to safe water among resource poor populations in East Africa, Unpublished paper presented at the International Conference on Health and Human Rights: Lessons Learned from Rights Based Approaches to Health, Atlanta, 2005.

monitored regularly as changes may be rapid, fairly unpredictable and very location specific.

The need for improved multiple use water services and sanitation is most urgent in urban and rural communities affected by HIV/AIDS. Current demand- responsive approaches and policies that promote full cost recovery and private sector involvement have an inherent risk of further marginalizing these communities (households and individuals) and jeopardising their access to improved water supply and sanitation WSH. Continued monitoring of access, equity and affordability is required to inform management strategies that are equitable, gender-sensitive and pro-poor.

8. What have we have learned?

This section gives an overview of the most important lessons learned in preventing and mitigating the effects of HIV/AIDS, both outside and inside the water and sanitation WSH sector. It forms the basis for the next chapter where suggestions are made as to how the water and sanitation WSH sector can be more effective in addressing the problem of HIV/AIDS.

8.1 National leadership and political commitment is crucial at all levels

Political commitment at the highest level is crucial for effective prevention and impact mitigation of HIV/AIDS. Lingering denial among both social and political leaders in some countries provides the epidemic with an ideal environment in which to spread. Commitment reduces stigma and discrimination and facilitates a multi-sectoral approach in partnership with civil society and the private sector.

Although much has been learned on effective responses, countries are slow to act and to invest in early prevention programmes and have not been able to scale -up successful interventions. Governments must take the lead in this. In Uganda, Tthe decrease in Uganda in HIV/AIDS prevalence from 23% to below 10% at present has been ascribed to the leadership of President Museveni, who has declared the fight against AIDS the highest government priority. The same is true for Thailand and Senegal, where the large- scale spread of the virus was contained by the commitment and action of the government. There are other countries where such commitment has proven to be effective, but of course there are also examples of countries where the leadership does not speak out or where messages are confusing, as in South Africa. For the prevention of rapid spread, early commitment is a must, coupled with sustained, interactive and localised campaigns. Local government has a key role to play here.

8.2 HIV/AIDS: a development problem that requires a multi-sectoral approach

It is now widely acknowledged that HIV/AIDS is not only a problem to be addressed by the health sector, but a development problem that has implications for all public services and all private enterprises. Thus, HIV/AIDS cannot and should not be tackled by the hHealth sector alone. The water WSH sector, like other sectors, has to address the implications of HIV/AIDS in its core policies, strategies and programmes (Topouzis, 2001) (www.unaids.org/bestpractice/digest/files/topouzisMoA2011.doc).

Multiple impacts

HIV/AIDS often intensifies problems of underdevelopment (e.g. negative impacts of inadequate basic water and sanitation services) and socio-economic imbalances and inequalities (impoverishment of population segments). Natural or human-made disasters

(drought, war) have a more devastating impact due to the reduced capacity to cope. AIDS specific responses alone are unlikely to deal with these multiple impacts, but approaches that address broader development problems across sectors, are more effective, highlighting the specificity of AIDS where necessary (Hemrich and Topouzis 2000).

Difficulties in putting a multi-sectoral approach into practice

While it is easy to speak of a multi-sectoral approach, it is often difficult to put this one into practice. First of all, multi-sectoral has two meanings: there is multi-sectoral in the sense of private, public and NGO sectors; and there is multi-sectoral in the sense of different (public) technical sectors such as health, water, and agriculture working together. Both types are necessary for the prevention and mitigation of HIV/AIDS. Secondly, there are policy and strategy developments that make implementation of a multi-sectoral approach difficult. For instance, the sector-wide approach (SWAP) can be positive in the sense of involving the private and NGO sectors (if indeed applied as intended), but does not really facilitate co-operation between different technical sectors.

Decentralisation

Decentralisation processes offer opportunities for a multi-sectoral approach, because decisions on resource allocation to the different sectors are made at the lowest – district or local - government levels, decisions on resource allocation to the different sectors are made. In many countries where effective decentralisation has taken place, there are District Development Councils/Committees that are the logical place for multi-sectoral planning for HIV/AIDS. It may also be possible to establish such a forum within an already existing multi-sectoral platform at district level. Examples are Water Resources Management Platforms or District Water, Sanitation and Hygiene (WASHE) committees. Arrangements will have to be context specific and depend on the local situation. An example of a district level framework is given in the publication “Rural workers’ contribution to the fight against HIV/AIDS: a framework for district and community action” (http://www.kit.nl/health/assets/images/Rural_AIDS_finalcomplete.doc), Royal Tropical Institute (KIT), World Bank, TANESA, UNAIDS.

8.3 Water, sanitation and hygiene education are key services for home-based care and impact mitigation

The many linkages between the water and sanitation WSH sector and HIV/AIDS have been described in section 4. Basically, there are five key areas where water and sanitation play a role in home-based care and mitigating the impact of HIV/AIDS:

Staying healthy

Diarrhoea and skin diseases are common opportunistic infections that can be reduced by safe water supply and sanitation. In order to optimise the impact of WS&SWSH services, they must be integrated with hygiene promotion that focuses on safe water handling and appropriate sanitation practices. Particular attention has to be given to the specific needs

of HIV positive people and their caregivers, in terms of both quantity and quality of water and also sanitation.

Home-based care

Home-based care (caring for people living with AIDS within communities) is now regarded as an essential element in the continuum of care. A reliable and sufficient water supply and good sanitation are indispensable for this (bathing, washing, cleaning and disinfecting the home environment, water for taking drugs, latrines to avoid contamination of water sources, and increase of comfort and dignity of patients). Hygiene education must be integrated in training for home-based care.

Infant feeding

Babies of HIV positive mothers can be infected through breast milk. As an alternative to breastfeeding, bottle-feeding is suggested where this is possible – depending on affordability, cultural and social acceptability. Safe water, sound sanitation practices and hygiene education are needed to prevent the baby from falling ill with diarrhoea. There is ongoing discussion and research into the prevention of mother-to-child transmission of HIV (<http://www.unicef.org/aids/mother.htm>) because bottle-feeding is often not a realistic alternative.

Labour saving and school attendance

Improved access to water supply provides important labour- saving benefits, to in particular to women and girls in households affected by HIV/AIDS. Time poverty, which is one of the major effects of HIV/AIDS, directly affects economic productivity and well-being. There is also a link between HIV/AIDS orphans, water collection tasks and school-drop out.

Water for productive use and nutrition

Multi-functional and sufficient water supply is even more important in a HIV/AIDS context. It 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. Water is also a possible source for income- generating activities such as beer brewing, food production and tending of livestock.

8.4 The water and sanitation sector lags behind in addressing HIV/AIDS

Although the linkages between water and AIDS are obvious and the sector is clearly affected in many ways, it is surprising that so little systematic attention is given to this issue by policy makers, water departments or even by water NGOs. Moreover, many donors do not address HIV/AIDS adequately in their water and sanitation WSH policies. There is a lack of systematic and in-depth information on the relationship between HIV/AIDS and water, sanitation and hygiene, and on the initiatives undertaken by individual countries,

organisations and programmes to address HIV/AIDS. Reasons for this neglect could be that the burden of the epidemic falls largely on the most vulnerable: sick people, female (often elderly) care givers and children. And it is exactly also precisely these categories that are most affected by insufficient water supply and sanitation. Gender inequality is a crucial factor.

Much can be learned from the agricultural sector (<http://www.fao.org>) and the education sector (<http://www.unesco.org/iiep/eng/focus/pages/1.9.2-hivaids1.html>) where HIV/AIDS is being addressed in policies and where strategies are being developed to integrate HIV/AIDS into sector programmes.

8.5 Mainstreaming HIV/AIDS in the water sector

Mainstreaming means the integration of HIV/AIDS approaches into institutions and programmes. Mainstreaming assesses the impact of HIV/AIDS within the organisation in terms of staff infections, prevention of further spread and support to those affected and infected through a number of strategies as described in section 5. In general, even in other sectors, this aspect of mainstreaming is not carried out because of the stigma attached to HIV/AIDS. Mainstreaming also concerns anticipating and addressing and anticipating the impact of HIV/AIDS on the programmes and services that are being implemented in the sector, and with the effect of such programmes on the spread of HIV/AIDS.

A basic principle in mainstreaming is that the sector keeps to its core business. Too often, mainstreaming means that sector staff are expected to carry out IEC information, education or communication activities in communities in the field of HIV/AIDS and/or to serve as condom providers in communities. This assumes that such staff are willing and able to do this, and have the necessary training (which is often not the case), and it takes time away from core functions. It is not what mainstreaming is all about: it assumes that such staff are willing and able to do this, and have the necessary training (which is often not the case), and it takes time away from core functions.

For instance, using agricultural extension staff for AIDS awareness raising and condom promotion diverts staff from effective mainstreaming. Examples of useful mainstreaming include: promotion of less labour-intensive crops and collective forms of production; assistance to child- and women-headed households that lack the technical knowledge and skills associated with adult male household members; and assisting co-operatives in developing a strategy for inclusion of whole households rather than individual persons etc.

Mainstreaming requires, first of all, a commitment from the management of the organisation. Secondly it requires time, funds and training for the staff responsible

for HIV/AIDS mainstreaming. Such staff, furthermore, should have sufficient influence to impact effectively within all sections of the organisation.

No examples have been found of systematic mainstreaming of HIV/AIDS in water supply and sanitation WSH provision, which could imply creating back-up systems for operation and maintenance, social and financial sustainability, and adaptation of the technical designs. Mechanisms are needed at different levels, situated both internally within water supply organisations and externally to ensure change. Much can be learned from experiences in mainstreaming gender. In addition policies and strategies would have to be adapted for the most needy in terms of labour contributions, tariffs etc. (Bell (2002) (<http://www.ids.ac.uk/bridge/reports/CEP-HIV-SR.pdf>); Cohen (2002d) (<http://www.undp.org/hiv/publications/issues/english/issue33e.htm>) ; Tallis (2002) (<http://www.ids.ac.uk/bridge/reports/CEP-HIV-report.pdf>), Holden (2003) (http://www.oxfam.org.uk/what_we_do/issues/hiv/aids/aidsagenda.htm).

8.6 Water supply and sanitation programmes that stimulate empowerment and poverty alleviation also address key issues for HIV/AIDS prevention and mitigation

Empowerment

A combination of empowerment of key actors and multi-sectoral support to their interventions, can be effective in developing capacities of local communities to tackle development issues within their own environment. This has been demonstrated in community management in water supply and sanitation WSH, and in poverty alleviation programmes aimed at community empowerment. The same has been demonstrated in HIV/AIDS in Local Response Programmes that focus on the way in which individuals, families and communities behave, and then use this as a basis for strategy development.

Partnership

Models used in earlier HIV/AIDS prevention programmes assumed that people would modify their practices and beliefs once they had access to adequate information and technology. It is now recognised that information and technology are necessary, but not sufficient for an effective and sustained response. There are limits to what people can do as individuals and therefore it is necessary to create an enabling environment through partnerships among key social groups and service providers, mediated by facilitators or catalysts.

Key social groups, service providers and facilities

Key social 'groups' at community level can be women's organisations, development committees (water, sanitation, health etc.), people affected by HIV/AIDS and/or traditional leaders. Service providers at district and local level include not only the health sector but also other sectors such as water supply, education (schools), agriculture and local government. They may be NGOs, faith-based organisations or the private sector. Finally, facilitators or catalysts facilitate the process in which partnerships are formed effectively.

Such facilitators may come from any of the key social groups or from outside. They can assist in social mobilisation, people organising themselves, develop “voice”, obtain entitlements (e.g. minimum standards) and claim their rights.

Roles

The activities of service providers should be seen as complementary to and supportive of activities initiated at community-level. The role of the facilitators is to help empower communities to address HIV/AIDS issues and to mobilise communities to formulate their own HIV/AIDS action plans. They can play an important role in mobilising and empowering service providers as well.

Tools

For this to happen, service providers need appropriate approaches and tools. In the water supply and sanitation WSH sector such tools have been developed over the past fifteen years and have been effective in stimulating ownership and ensuring sustainability. Many of these tools are adapted for use in HIV/AIDS and although their application is not yet widespread, it is gaining ground. UNAIDS developed a toolbox for local responses that includes techniques used in the water sector adapted for use in HIV/AIDS¹⁵.

IEC channels and materials

The use of information, education and communication (IEC) channels and materials to combine hygiene promotion with HIV/AIDS education could be advantageous to both sectors, depending on the local context. Examples are the use of a historical profile (discussion on when HIV/AIDS became an issue), seasonal calendar (discussing the impact of seasonal migration), community mapping (discussing places that facilitate sexual encounters), or wealth ranking.

8.7 Involvement of people affected by HIV/AIDS

At community and district level, it is essential to involve people living with or affected by HIV/AIDS, in planning and implementing all development activities. They themselves can best judge how programmes affect them and which approaches work to avoid discrimination and social or economic exclusion. It is also important to show that people infected with the HIV virus can continue to live a productive life, continue to care for their families and contribute to community activities. Such courageous people have an important function in breaking the silence that surrounds HIV/AIDS and contribute to a reduction in discrimination and stigma.

¹⁵ Wegelin-Schuringa, M. And G. Tiendrebeogo, G. (eds.) (2004), Techniques and Practices for Local Responses to HIV/AIDS. Part 1: techniques; Part 2: practices. Amsterdam: KIT Publishers and Geneva: UNAIDS http://www.kit.nl/frameset.asp?/development/html/publications_db.asp&frnr=1&ItemID=1462

9. Implications for the water and sanitation sector: multiple responses to HIV/AIDS

The lessons learned have been discussed in the previous section. On the basis of these lessons, and following the same points, some suggestions are made for strategies that the water and sanitation sector could develop to address the HIV/AIDS problem. This can be done at different levels, and does not necessarily imply increased funding, although this is needed for larger coverage. The suggestions are quite general, and it is suggested that water and sanitation WSH organisations themselves discuss the lessons learned and develop their own strategies based on the local situation.

9.1 National leadership and political commitment at all levels

National governments need to face up to AIDS as a threat to their country's development agenda. They have to lead the response to HIV/AIDS by addressing the epidemic openly and by integrating it in all their policies and instruments for development, such as Sector Wide Approaches and Poverty Reduction Strategy Papers. A useful toolkit that will assist in mainstreaming AIDS in PRSPs can be found here (<http://www.unaids.org/publications/documents/economics/agriculture/JC536-Toolkit-E.pdf>). As most countries are signatories to the major international human rights conventions the state duty bearers have to respect, protect and, to the extent possible, fulfil these rights.

The water and sanitation WSH sector, like all other sectors, must make a commitment to address HIV/AIDS and develop a policy on AIDS on the basis of an assessment of HIV/AIDS impact on their organisations and programmes. Where necessary, existing policies may need to be adapted –, for instance on cost recovery. National governments have to develop monitoring systems to assess progress and enforce action if progress is below what is planned. But it is not just national governments that must make a commitment to address HIV/AIDS. Local government has a key role to play. In addition, donor governments and donor organisations have important responsibilities. Even here, HIV/AIDS is all too often seen as a health sector issue and not as a crosscutting issue affecting all development activities.

9.2 HIV/AIDS is a development problem that requires a multi-sectoral approach

A strategy for a multi-sectoral response (<http://www.ids.ac.uk/bridge/reports/CEP-HIV-report.pdf>) to HIV/AIDS includes:

- considering HIV/AIDS as a development issue that has implications in all areas of policy making,
- involving all sectors in developing a framework to respond to the epidemic at national, district and community levels,

- identifying the comparative advantages and roles of each sector in implementing a response (in keeping with their core business), and identifying where sectors need to take action together or individually,
- encouraging each sector to assess how it is affected by and affects the epidemic, and developing sectoral plans of action at different levels,
- developing effective partnerships between government departments/ministries, and between the public sector, the private sector and civil society.

The focus of multi-sectoral interventions should be at local and district level, where they have to be made operational. Where multi-sectoral mechanisms are already functioning, opportunities for HIV/AIDS-related initiatives should be integrated. The district level framework given in the publication "Rural workers' contribution to the fight against HIV/AIDS: a framework for district and community action", Royal Tropical Institute (KIT), World Bank, TANESA, UNAIDS

(http://www.kit.nl/health/assets/images/Rural_AIDS_finalcomplete.doc) gives practical steps to be followed in the development of a multi-sectoral approach at district level.

9.3 Water, sanitation and hygiene education are key services for impact mitigation

In the light of the linkages between water supply, sanitation and HIV/AIDS mentioned in sections 4 and 8, the sector has to assess how best it can support communities to access safe water supply, sanitation and hygiene education to mitigate the impact of HIV/AIDS and to support community care for those affected and infected by HIV/AIDS. This may imply that policies and strategies have to be changed, but should be based on the principle that access to safe and sufficient water and sanitation are essentially a right:

- Entitlements formulated as minimum standards
- Democratic governance of water resources and protection of the most vulnerable, especially in situations of water scarcity
- Creation of accountability mechanisms (e.g. Water Boards) whereby consumers (rights holders) can hold the service providers (duty bearers) to account
- Focus on robust, affordable and sustainable service levels, with a particular emphasis on their cost implications to ensure HIV/AIDS affected households are not excluded from the benefits. (This must also address the issue of community labour, cash contributions and tariff policies.)
- Focus on labour and energy saving benefits,
- Focus on water for health: reduction of opportunistic diseases, etc. and promotion of appropriate techniques for household level water treatment where access to safe water is not possible in the short term; combine and integrate gender-sensitive hygiene and HIV/AIDS education programmes (social marketing; participatory approaches),
- Focus on economic benefits (productive use) and recognition of the importance of water for food security, nutritional values, diversification for the poor and vulnerable:

integrated water resources management perspective and Sustainable Livelihoods Approach,

- Explicit inclusion and empowerment of women and people living with HIV/AIDS and their care-givers,
- Pro-poor financing mechanisms (cost recovery policies; (cross) subsidisation) and social protection measures if needed
- In high- prevalence areas: special attention and social protection for the most vulnerable: elderly, widows/widowers, orphans and vulnerable children (ability to pay; participation in decision-making), households affected by HIV/AIDS.

9.4 The Water and Sanitation Sector lags behind in addressing HIV/AIDS

Advocacy is the first step to raise awareness of the linkages between HIV/AIDS and water and of the necessity to mainstream HIV/AIDS both internally and in the programmes of the water sector. This does not only apply to the public sector, but also to the private sector and the NGOs. Possibly water NGOs could take a lead in this as they are more operational at community level and are aware of the increased needs and effects of HIV/AIDS on the service of the sector. Opportunities should be explored for employing people living with HIV/AIDS as community health educators should be explored.

9.5 Mainstreaming HIV/AIDS in the water sector

A sectoral strategy has to be developed to deal with the internal (organisational) impact of HIV/AIDS, with the following components:

- internal impact assessment that covers issues mentioned under section 5 and serves as a basis for strategy development,
- development of workplace policies that create a supportive organisation, with an atmosphere of openness and confidentiality,
- development of prevention strategies that include IEC, peer education programmes, condom distribution and availability, adjustment of working conditions to reduce susceptibility and elimination of sexual harassment in the organisation - with all strategies taking the gender dimension into account,
- adaptation and reorganisation of workload: incorporation of HIV/AIDS concerns into work planning procedures; strategies of multi-skilling and reserve staff; adjustment of performance appraisal systems to manage impacts on productivity,
- integration of HIV/AIDS into all training activities; development of on-the-job training systems for multi-skilling; and development of plans to overcome difficulties in finding and training new staff.

With respect to external mainstreaming, each programme operating in a HIV prevalence area needs to assess how HIV/AIDS may affect its target group, activities, strategies, objectives and operations. The questions that need to be addressed are:

- How will the HIV epidemic affect water and sanitation programmes (in terms of target groups, objectives, strategies, activities, human and financial resources)?; and
- How will water and sanitation programmes (in terms of target groups, objectives, strategies, activities, human and financial resources) influence the HIV epidemic?

Thus programme elements can either affect or be affected by the epidemic. Each element can contribute to enhancing or reducing the spread and/or impact of the epidemic. On the basis of the assessment, strategies can be developed within the sector, within departments and within organisations.

9.6 Water and sanitation programmes that stimulate empowerment and poverty alleviation also address key issues for HIV/AIDS prevention and mitigation

It is methodologically very difficult to single out HIV/AIDS as a single factor affecting livelihoods, or as a single cause of poverty. It is easier to mainstream HIV/AIDS as one among a number of significant factors impacting on rural livelihoods and on people's social and economic rights. It is, however, important, to have enough information to raise awareness of the immediate and long-term effects of HIV/AIDS and the need for practitioners and policy makers to begin addressing this impact as a matter of urgency.

Creative methods are needed, including expanding the time scale and scope. This also ensures dealing with HIV/AIDS as one of the factors at stake. Care should be taken to avoid focusing on AIDS-affected households at the expense of other households which may be equally or more needy. A Sustainable Livelihoods Approach is useful for enhancing the understanding of the impact of HIV/AIDS in context along with other factors affecting livelihoods and poverty (White and Robinson 2000) (<http://www.livelihoods.org/cgi-bin/dbtcgi.exe>).

Examples of policies that stimulate empowerment and poverty alleviation are those that:

The most important policies and strategies to undertake byfor state and non-state actors to undertake to promote access to water and sanitation as a right in a HIV/AIDS context are the following:

- Developing strategies to ensure fulfilment of the right of care givers, PLWHA and their families to receive information and education on how to reduce the exposure to water and sanitation related diseases.
- Establishing clear water and sanitation standards, which form entitlements and are accepted as such by both water sector staff and consumers.
- Redefining 'domestic water supply' to include not only water for basic needs but also water for small-scale production.
- Developing and offering technologies that require least labour for operation and maintenance (e.g. handpumps, spring water protection, rainwater harvesting), home-

based water treatment such as SODIS (solar disinfection), SWS (safe water system) and sanitation (SAN plat, VIP latrines or pour-flush latrines).

- Speeding up funding for water and sanitation coverage in rural areas and low-income urban settlements, especially those areas most affected by the epidemic.
- Creating mechanisms for poor people in general and PLWHA and women in specific particular, to establish their needs, to influence water and sanitation WSH decisions and hold water providers (and local government) to account.
- Placing access to water and sanitation in the political arena (creating a lobby)
- Addressing inequality in assets and incomes by, for example, including social protection measures for the poorest and adapting cost recovery strategies to accommodate the poorest (often HIV/AIDS stricken) households.

9.7 Involvement of people living with HIV/AIDS

Many countries have organised groups of people living with HIV/AIDS that could be asked to assist in breaking down stigma and discrimination within the organisations. They could also assist in mainstreaming HIV/AIDS in ongoing programmes. Of course, it would be best if HIV positive people from within the organisations would take this role, but this may as yet not be possible, depending on the prevalent attitude. See for instance (<http://www.inplusplus.org/About.html>; www.icw.org; <http://www.xs4all.nl/~gnp/asap.html>; <http://www.livingwithhiv.net/gipa.html>; <http://www.irinnews.org/AIDSreport.asp?ReportID=1301>).

In conclusion, it can be said that the effects of the HIV/AIDS epidemic would be less disastrous if the water and sanitation WSH sector played its part. Taking measures that ensure the sustainable provision of basic water and sanitation WSH services that are indeed reliable, accessible and affordable for everybody would already be a huge contribution. In many countries, however, this cannot be achieved without explicitly addressing the impact of HIV/AIDS in all its dimensions.

TOP Resources

A lot of useful information is available. In this section a selection is made of publications, websites and toolkits.

TOP Publications

Ashton, P. and Ramasar, V. (2001). 'Water and HIV/AIDS: some strategic considerations in Southern Africa.' Pretoria

The publication is online available as a chapter (16) of Turton, A.R. & Henwood, R. (Eds.) *Hydropolitics in the Developing World: A Southern African Perspective*, African Water Issues Research Unit (AWIRU) (2002).

[http://www.internationalwaterlaw.org/Articles/hydropolitics_book.pdf]

This is probably the first publication that draws attention to the negative effects of the HIV/AIDS pandemic on the provision of wholesome water supply and efficient resource management. First a strategic overview of the HIV/AIDS pandemic in Southern Africa is provided and then the extent in which it influences and is influenced by water resource management on the continent is examined..

Bell, E. (2002). *Gender and HIV/AIDS: supporting resources collection*.

Bridge Development- Gender, Institute for Development Studies, UK. Available online.

[<http://www.ids.ac.uk/bridge/reports/CEP-HIV-SR.pdf>]

This publication provides summaries of key resources outlining why gender is important in understanding the impact and spread of HIV/AIDS. Different strategies are discussed that have been employed to combat the epidemic and help this affected. Recommendations for policymakers and practitioners are provided as well as information on courses, websites, networking and contact details of organisations specialising in gender and HIV/AIDS.

Bjorkman, A. (2002). *HIV/AIDS and Poverty Reduction Strategies*.

UNDP Policy note.

Available online. [<http://www.undp.org/hiv/docs/HIVPRS.doc>]

The Policy Note provides a synthesis of cutting-edge thinking on the interface between poverty reduction strategies and efforts to reverse the spread of HIV/AIDS. It proposes nine policy areas that UNDP and its partners must focus on as a matter of priority. At the core of the Policy Note is a checklist with specific guidance on how to integrate HIV/AIDS into poverty reduction strategies, relevant for all countries regardless of their current HIV prevalence rates. The Note concludes by bringing the discussion to the global level. It recommends that UNDP—in the context of the Millennium Development Goals Campaign—step up its advocacy for placing HIV/AIDS at the centre of the international development agenda, capitalising and building on its work at country level.

Cohen, D. (2002). 'Human Capital and the HIV epidemic in sub-Saharan Africa.'

Working Paper 2, ILO Programme on HIV/AIDS and the World of Work, Geneva. Available online.

[http://www.ilo.org/public/english/protection/trav/aids/download/pdf/wp2_humancapital.pdf]

This working paper concerns the impact of HIV/AIDS on human capital in sub-Saharan Africa. It provides insights into the impact of the epidemic on sustainable development in the region that is hardest hit by AIDS and already seriously affected by poverty, by focussing on key factors critical to human capital. The paper analyses the loss of human capital particularly in the health and education sector and suggests how to respond to AIDS-related loss of skilled and professional labour through mobilising governments and workplace partners. A multi-sectoral programme of action to maintain human capital is provided.

Cohen, D. (2002). 'Poverty and HIV/AIDS in Sub-Saharan Africa'

Issues Paper No. 27, HIV and Development Program, UNDP.

Available online. [<http://www.undp.org/hiv/publications/issues/english/issue27e.html>]

The paper addresses the basic problem that the HIV Epidemic makes sustained human development more and more unattainable, and actually adds to poverty, while it also destroys the human resource capacities essential for an effective response. Cohen explains that the two bi-causal relationships (between poverty and HIV/AIDS and between HIV/AIDS and poverty) can best be understood as a process. The epidemic has stages and the effects of the epidemic are aggregative.

Cohen, D. (2002 d). 'Mainstreaming the Policy and Programming response to the HIV epidemic.'

Issues Paper No. 33, HIV and Development Program, UNDP.

Available online. [<http://www.undp.org/hiv/publications/issues/English/issue33e.htm>]

This paper argues that what is needed is a more complex understanding of the epidemic than has existed hitherto, together with an increased capacity for designing and implementing more effective policy and programming responses. All of these conditions need to be present for an effective worldwide response to the epidemic, of which UNAIDS is an important component. Mainstreaming HIV has to contain all of these - a more complex understanding; a capacity for improved design of programmes and projects through new processes, which are socially inclusive; and new and different and more participatory systems for implementing programme responses.

Filmer-Wilson, E. (2005), 'The Human Rights-based Approach to Development: the right to water.' In: Netherlands Quarterly on Human Rights, Vol.23/2, 213-241

Comprehensive article on the implications and value added of the application of a rights-based approach to water development. An overview is provided of the general principles of a rights-based approach: empowerment and participation of rights holders and accountability of duty bearers. Although HIV/AIDS is not mentioned explicitly in the article, a number of issues arise from emphasising water as a right that are relevant in a HIV/AIDS context: necessity to set and apply minimum standards; safeguarding the interests of the

poorest and most vulnerable in situations of contested water scarcity and privatisation of water supply.

Franks, T. and Cleaver, F. (2002). 'People, livelihoods and decision making in catchment management: a case study from Tanzania'. In: *Waterlines*, vol. 20. no.3, 7-10 This article illustrates the complexity of catchment water management and the importance of understanding the context of economic, political and cultural aspects of livelihoods in a catchment. Issues highlighted include the need for institutions, which cross resource boundaries, ways of including those stakeholders usually excluded from decision-making processes, and the importance of livelihood constraints - including HIV/AIDS - on people's participation in resource management.

'General Comment 15 on the Right to Water (2002)',
General Comment No. 15 on the Right to Water was adopted by the UN Committee on Economic, Social and Cultural Rights at its twenty-ninth session in November 2002 (UN Doc. E/C.12/2002/11). The Comment provides guidelines for States Parties on the interpretation of the right to water under two articles of the International Covenant on Economic, Social and Cultural Rights - Article 11 (the right to an adequate standard of living) and Article 12 (the right to health).

Hemrich, G. and Topouzis, D. (2000). 'Multi-sectoral responses to HIV/AIDS: constraints and opportunities for technical co-operation'. In: *Journal of International Development*, 12, 85-99

This paper proposes a conceptual framework on the relevance of HIV/AIDS to non-health technical cooperation programmes, highlighting factors of susceptibility and vulnerability to the epidemic. It is argued that as HIV/AIDS is rooted in problems of underdevelopment, such as poverty, food and livelihood insecurity, socio-cultural inequalities and poor support services and infrastructure, AIDS-specific responses alone are unlikely to contain the spread or mitigate the impact of the epidemic. A shift is needed towards an approach that addresses broader development problems across sectors, highlighting the specificity of HIV where necessary.

Holden, Sue (2003). *AIDS on the Agenda: Adapting Development and Humanitarian Programmes to Meet the Challenge of HIV*. Oxfam GB, in association with ActionAid and Save The Children.

This book is written for policy-makers, managers, and programme staff in development and humanitarian organisations, to promote debate about the changes that need to be made to their programmes if they are to work effectively in a world, which has been changed forever by the pandemic of AIDS. It is about adapting mainstream development and humanitarian work to create a holistic response to the impact of AIDS on poor and marginalised communities. It also addresses the need to modify internal human-resource policies to protect employees and the on-going work of any organisation operating in AIDS-prone contexts. The text is based on case studies drawn from the experiences of ActionAid, Oxfam GB, Save The Children, and their partners; on insights contributed by

other agencies; and on information gathered from websites and published papers, reports, and books.

Kgalushi, R., Smits, S. and Eales, K. (?), *People living with HIV/AIDS in a context of rural poverty: the importance of water and sanitation services and hygiene education. A case study from Bolobedu (Limpopo Province, South Africa).*

This case study was undertaken by the NGO The Mvula Trust and is first in-depth study on this subject. The study recommends that the water sector pays closer attention to the specific effects of inadequate services on those who are HIV positive, works to strengthen targeted multi-sectoral initiatives – notably with health and agricultural sectors and in schools – and has a key role to play in promoting closer integration of support and training to care givers.

Can be retrieved as pdf file from <http://www.irc.nl>

Kiongo, John Mbugua (2005), 'The Millennium Development Goal on Poverty and the Links with Water Supply, Sanitation, Hygiene and HIV/AIDS', Land Use Consultants, Kenya and International Water and Sanitation Centre, Netherlands.

This case study analyses the water supply and sanitation conditions in Kenya in relation to the Millennium Development Goals and with specific reference to the HIV/AIDS epidemic. Major conclusions are that the National HIV/AIDS strategy does not address any of the water and sanitation related needs of HIV/AIDS affected families. The Human Resource Development strategies of the WATSAN sector do not sufficiently take the implications of the HIV/AIDS epidemic into account. One of the recommendation is a partnership initiative for water, sanitation and hygiene promotion for health and livelihoods of the poor.

<http://www.irc.nl/page/16127>

Loewenson, R. and Whiteside, A. (2001). 'HIV/AIDS; Implications for Poverty Reduction.' UNDP. Background paper for the UNDP for the UN General Assembly. Special session on HIV/AIDS 25-27 June (2001).

Available online. [<http://www.undp.org/dpa/frontpagearchive/2001/june/22june01/hiv-aids.pdf>] This paper concerns the subject of counteracting the developmental impact of the epidemic. The devastating and multifaceted socio-economic impact of HIV/AIDS, well beyond the tragedy of illness and death, is described. Five priorities for action in coping with this impact are identified: preventing the collapse of essential public services; intensifying and adapting poverty reduction efforts; protecting educational achievements; mitigating the impact on labour productivity and supply, and promoting opportunities for women who carry the brunt of the epidemic.

Mutangadura G., Mukurazita D. and Jackson, H. (1999). *A review of household and community responses to the HIV/AIDS epidemic in the rural areas of sub-Saharan Africa.* UNAIDS, Geneva

This publication is a review and analysis of existing literature on household and community coping responses to HIV/AIDS. The variety of responses is categorised in: strategies aimed at 1. Improving food security, 2. Supplementing income so as to maintain household

expenditure patterns, 3. Alleviating the loss of labour. Major policy options identified are: strengthening the coping capacity of households by improving their access to limited resources; social assistance programs, and working through existing indigenous traditional community mechanisms instead of displacing them.

Nicol, A. (2000). 'Adopting a Sustainable Livelihoods Approach to Water Projects: Implications for Policy and Practice.' Overseas Development Institute, London, UK. Nottingham: Russel Press. Sustainable Livelihoods Working Paper Series No.133. Available online. [<http://www.livelyhoods.org>, NOTE: on the Livelihood homepage go to Key Documents under Information Resources. Type Nicol into Find documents by word or phrase and click Find]

Nicol identifies the principal features of the Sustainable Livelihoods Approach to water supply projects as a first step in reorienting work in the sector. Issues covered include the pre-eminence of a health-based view within the water and sanitation sector; using the SL framework to analyse water in the context of poor households, and assessing the operational and theoretical implications of adopting a SL approach.

Ondari, J. and Lidonde, R. (2001). 'The impact of HIV/AIDS on Water and Sanitation Services Delivery.' Available online.

[<http://www.irc.nl/source/bulletin/sb22.html#hivaidsh>]

Paper presented at 13th Regional Water and Sanitation Seminar on "Hygiene, Sanitation, Water and HIV/AIDS-Emerging Issues, Nairobi. The article focuses on Kenya and identifies upcoming problems such as competing budget allocations (HIV/AIDS and water supply); risk of private sector involvement in an HIV/AIDS context; reduction in community participation in water activities; viability of credit schemes for water supply; increased costs of water supply provision leading to increase of tariffs; water demand reduction and decreased investment by public sector in basic services such as water supply.

Tallis, V. (2002). 'Gender and HIV/AIDS.'

Bridge Development-Gender, Institute of Development Studies, overview report. Available online. [<http://www.ids.ac.uk/bridge/reports/CEP-HIV-report.pdf>]

This paper argues that HIV/AIDS is not only driven by gender inequality – it entrenches gender inequality, putting women, men and children further at risk. Defining and stigmatising those 'at risk' as men who have sex with men, sex workers and drug users has until recently obscured the increasing infection rate among people generally thought to be 'safe', including married and older women. The dominant factor is now heterosexual sex. As individuals and in their social roles women are disproportionately affected by HIV/AIDS.

Topouzis, D. (2001). 'Addressing the impact of HIV/AIDS on Ministries of Agriculture: focus on Eastern and Southern Africa.' Discussion Paper. Available online.

[www.unaids.org/bestpractice/digest/files/topouzisMoA2011.doc]

This paper examines the relevance of HIV/AIDS for Ministries of Agriculture (MoA) and their work, with a focus on smallholder agriculture. Analysed in detail are the impact on:

staff vulnerability to HIV infection and AIDS impact; disruption of MoA operations and erosion of capacity to respond to the epidemic; increased vulnerability of MoA clients to food and livelihood insecurity, and the relevance of certain policies, strategies and programmes in view of the conditions being created by HIV/AIDS.

UNAIDS (2004). '2004 Report on the Global AIDS epidemic : 4th global report' . Geneva, Switzerland, UNAIDS. Available on line.

http://www.unaids.org/bangkok2004/GAR2004_html/GAR2004_00_en.htm

The annual AIDS epidemic update reports on the latest developments in the global HIV/AIDS epidemic. With maps and regional summaries, the 2004 edition provides the most recent estimates of the epidemic's scope and human toll, explores new trends in the epidemic's evolution, and features a special section on women and AIDS.

UNDP, (2002). 'HIV/AIDS Implications for Poverty Reduction. UNDP Policy Paper.' Available online.

[<http://www.onusida-aoc.org/Eng/Poverty,%20debt%20and%20AIDS.htm>]

UNDP, (2002). HIV/AIDS Implications for Poverty Reduction. UNDP Policy Paper. The purpose of this policy paper is to discuss the mitigation of impact of the epidemic on social and economic development by intensifying national poverty reduction efforts and providing support for those particularly affected. It describes this impact and identifies priorities for action in coping with this impact.

UNICEF et al (2004). *The Framework for the Protection, Care and Support of Orphans and Vulnerable Children Living in a World with HIV and AIDS*

[www.unicef.org/aids/files/Framework_English.pdf]

In the first Global Partners Forum in October 2003, convened by UNICEF, a broad range of agencies sponsored the endorsement of a Framework as a normative basis for responding to the needs and rights of children affected by HIV/AIDS. It has been widely endorsed by UNAIDS cosponsors and many others, and welcomed by international partners.

Wegelin-Schuringa, M., and G.Tiendrebeogo (eds) (2004), 'Techniques and Practices for Local Responses to HIV/AIDS. Part 1: techniques Part 2: practices.' Amsterdam: KIT Publishers; and Geneva: UNAIDS

This toolkit documents experiences of communities around the world in dealing with HIV/AIDS. Techniques and practices are presented for others to learn from and adapt to their own context. Whenever possible, a contact address is given to enable users to get more information or to share their experience of using and adapting a given technique or practice. 'Part 1: Techniques' contains 20 techniques for application in different stages of the planning cycle. The purpose and use of each technique is described, and practical guidelines are given on how to proceed.

English : <http://www.kit.nl/development/html/publications_db.asp?ItemID=1462>

French : http://www.kit.nl/development/html/publications_db.asp?ItemID=1509

Portuguese : <http://www.kit.nl/development/html/publications_db.asp?ItemID=1510>

'Part 2: Practices' contains 50 practices used to address one or more specific problems. The practices are grouped into four categories: prevention, care and treatment, support and mitigation, and partnership and coordination. These are available in English only.
English : <http://www.kit.nl/development/html/publications_db.asp?ItemID=1462>

Whiteside, A. and Barnett, T. (2002). *AIDS in the twenty-first century. Disease and globalization*. Palgrave MacMillan, New York, USA

This book presents compelling data and research, which reveals the shocking social and economic impact of HIV/AIDS on a global scale. Barnett and Whiteside-experts in the field for over 15 years-argue that it is vital to not only look at the disease in terms of prevention and treatment, but to also consider consequences which affect households, communities, companies, governments, and countries. This is a major contribution toward understanding the global public health crisis, as well as the relationship between poverty, inequality, and infectious diseases.

WHO Guidelines for drinking-water quality. 3rd edition (2004). Geneva, Switzerland.
http://www.who.int/water_sanitation_health/dwq/GDWQ2004web.pdf

This new edition of WHO's Guidelines for Drinking-water Quality provides a state-of-the art perspective on issues of water quality and health and on effective approaches to water safety management. The Guidelines are used by countries world-wide as a scientific basis for standard-setting and regulation and are used extensively by professionals and local decision-makers. They supersede five editions of guidelines and of previous International Standards. This fully-revised third edition includes expanded coverage on systematic drinking-water safety assessment and management.

World Bank, (1997). 'Confronting AIDS. Public priorities in a global epidemic.'

World Bank Policy Research Report, Oxford University Press

This report outlines the strategic role that government must play in slowing the spread of HIV and mitigating the impact of AIDS. Drawing on the knowledge accumulated in the 17 years since the virus that causes AIDS was first identified, the report highlights policies that are most likely to be effective in managing the epidemic. These include early actions to minimize the spread of the virus, aiming preventive interventions at high risk groups, and evaluating measures that would assist households affected by AIDS according to the same standards applied to other health issues.

White, J. and Robinson, E. (2000). 'HIV/AIDS and Rural Livelihoods in Sub-Saharan Africa.' Natural Resources Institute, University of Greenwich, UK. Available online.

[<http://www.livelihoods.org/>] (NOTE: on the Livelihood homepage go to Key Documents under Information Resources. Type Robinson into Find documents by word or phrase and click Find).

This study brings together literature on HIV/AIDS with literature on sustainable livelihood approaches to look at the broader impacts and possible responses to the AIDS epidemic. In particular it reflects on the need for more community level and cross-sectoral analysis to

better target poverty alleviation programmes seeking to tackle HIV/AIDS. The study also provides helpful contacts to organisations working on HIV/AIDS and livelihoods.

'Zimbabwe water and sanitation sector HIV/AIDS response: programme, strategies and guidelines.' National Action Committee, Government of Zimbabwe, Unicef, June 2003, First Edition. URL: <http://www.sarpn.org.za/documents/d0001030/index.php>
<<http://www.sarpn.org.za/documents/d0001030/index.php>>

TOP Websites

CADRE [www.cadre.org.za]

A South African AIDS media research organisation - which has a range of interesting research papers and media guidelines reviewing what works and what doesn't in terms of getting the message across. Particular emphasis is given to 'action media' - i.e. participatory development of local relevant materials.

International AIDS Economic Network (IAEN) [<http://www.iaen.org/>]

Informal group of researchers, policymakers, consultants, NGOs, development agencies, multilaterals, universities and others. The site focuses on the economics of AIDS in developing countries and includes data, news about conferences, and discussion platforms. International Labour Organisation (ILO), HIV/AIDS and the World of Work, information on labour related issues, conference proceedings and publications. [<http://www.ilo.org/public/english/protection/trav/aids/>]. Code of practice on HIV/AIDS and the workplace.

IDS Participation Group Page [<http://www.ids.ac.uk/ids/particip/index.html#pghome>]

Group of people at the Institute of Development Studies in Sussex, UK, working in support of participatory approaches to development.

Participation Learning Center [<http://www.pwci.org>]

Set of sample SARAR materials as applied by the Peopleworks Collaborative Inc. in a variety of sectoral field programmes.

The Right to Water. [<http://www.righttowater.org.uk/code/homepage.asp>]

This website, launched on Human Rights Day 2003, has been established by WaterAid and Rights and Humanity, in cooperation with FAN, as part of our contribution to the International Year of Freshwater 2003. Its aims are to: 1. Provide information on relevant policy commitments and explain the concepts and theories of human rights law with respect to the right to water, 2. disseminate General Comment No 15 adopted by the UN Committee on Economic, Social and Cultural Rights confirming and interpreting the right to water and 3. Promote the use of the right to water as a tool for community empowerment, advocacy and legal redress

Royal Tropical Institute (KIT), Netherlands

http://www.kit.nl/frameset.asp?/development/html/publications_db.asp&fnr=1&ItemID=146
2 HIV/AIDS site with documentation on gender, HIV/AIDS in multi-sectoral perspective, local responses. Special section on tools for Local Responses.

Strategies for Hope Series [<http://www.stratshope.org>]

Site about the Publications and Media series, Strategies for Hope. Explores approaches of different agencies to the HIV/AIDS epidemic in developing countries.

UNAIDS: The Joint UN Programme on HIV/AIDS. [<http://www.unaids.org/>]

A major resource site of the joint UN Programme. The site has a large electronic bibliography with many articles on site. Includes sub-sites on Best Practices, including articles on Gender and HIV/AIDS, Community Mobilization, and HIV/AIDS Education. There are also descriptions of the International Partnership Against AIDS in Africa, and related regional activities. The site also provides links to the Programme's Co-Sponsors: WHO, UNDP, UNICEF, UNFPA, UNESCO, the World Bank and UNDCP.

UNDP/HDP [<http://www.undp.org>]

The site on UNDP and a sub-site on the HIV and Development Programme can be reached through the main site. The site describes the mission, programmes, and activities of the programme and provides useful links to other relevant sites. The sub-site can be reached at: <http://www.undp.org/hiv/index.htm>

UNIFEM Web portal on HIV/AIDS and gender

[<http://www.genderandaids.org/>]

World Bank HIV/AIDS page

[<http://www.worldbank.org/html/extdr/hivaids/default.htm>]

TOP Toolkits

Toolkit for mainstreaming HIV/AIDS in government ministries

[<http://www.und.ac.za/und/heard/>]

The toolkit aims (1) to assist priority sectors to identify areas where they are vulnerable to the impact of HIV/AIDS and (2) to suggest specific steps that can be taken. The toolkit has a generic section covering (i) understanding of HIV/AIDS; (ii) Why HIV/AIDS is a government issue; (iii) HIV/AIDS and Ministry employees; (iv) Planning tools. In addition there are tools for specific departments/sectors and AIDS briefs for different categories of government employees.

Gender Mainstreaming in HIV/AIDS: Taking a Multisectoral Approach (2002), Commonwealth Secretariat and the Canada-based Maritime Centre of Excellence for Women's Health

To successfully address the pandemic, a gender perspective has to be mainstreamed into a broad-based and multi-sectoral response. In Botswana HIV/AIDS is mainstreaming an approach to HIV/AIDS in all government ministries plans and NGO and private sector partnerships. This manual helps explain why all future work should include a focus on gender, a guide to how this can be achieved and information about what is being done to date. In India for example the Lawyers Collective provides legal aid to men and women affected with HIV. Case studies illustrate how programmes that promote HIV prevention by addressing gender as well as the social and economic factors that increase people's risk of infection are more likely to succeed in changing behaviour. It also contains an extensive list of online resources.

Contact Rupert Jones-Parry, Publications Unit, Commonwealth Secretariat, Marlborough House, Pall Mall, London SW1Y 5HX, United Kingdom, tel: +44 (0) 20 7747 6342, fax: +44 (0) 20 7839 9081, e-mail: r.jones-parry@commonwealth.int

Stepping Stones Training Package

[<http://www2.ids.ac.uk/siyanda/search/summary.cfm?nn=665&ST=SS&KEYWORDS=stepping%20stones&SUBJECT=0&local=0&START=1>]

Author: Welbourn, A.

A training package on gender, HIV, communication and relationship skills, for use with whole communities to challenge gender inequalities and inter-generational inequalities, between men and women and between older and younger people.

The HIV/Gender Continuum (2002)

[<http://www2.ids.ac.uk/siyanda/search/summary.cfm?nn=819&ST=SS&KEYWORDS=hiv%20Foids&SUBJECT=0&local=0&START=11>]

Author: International Planned Parenthood Federation (IPPF) Western Hemisphere Region
IPPF have developed this new tool to help investigate how responsive an organisation's services and programmes are to gender issues related to HIV prevention within an overall rights-based approach to sexual and reproductive health.

AIDS: Gendering the Response (2001)

[<http://www2.ids.ac.uk/siyanda/search/summary.cfm?nn=797&ST=SS&KEYWORDS=hiv%20Foids&SUBJECT=0&local=0&START=21>]

Author: Ryan, Gladys and Tallis, Vicci

This training aid, which includes a video of the same name, is to help educators and trainers facilitate discussions with development practitioners on dealing with the issue of gender and HIV/AIDS in their work. Document Type: Guide

Gender, HIV and Human Rights: A Training Manual (2000)

[<http://www2.ids.ac.uk/siyanda/search/summary.cfm?nn=295&ST=SS&KEYWORDS=hiv%20Foids&SUBJECT=0&local=0&START=21>]

Summary: This training manual includes both a one-day and a two-day training module, 'Gender Concerns in HIV/AIDS and Development', aimed at raising awareness of the gender dimensions of HIV/AIDS. The structure, agenda and methodology of the sessions, training aids and notes for the facilitator are provided. The document is available in English, French and Spanish.

Facing the Challenges of HIV, AIDS, STDs: a Gender-based Response (1996)

<http://www2.ids.ac.uk/siyanda/search/summary.cfm?nn=799&ST=SS&KEYWORDS=hiv%20Foids&SUBJECT=0&local=0&START=41>]

Author: De Bruyn, Maria
This resource pack aims to provide policy-makers, planners and programme implementers with information and ideas on how to incorporate a gender-based response to HIV/AIDS and STDs into their policies and programmes. Document Type: Tool Short Summary

UNDP, Strengthening Community Responses to HIV/AIDS: a toolkit (2000),
[<http://www.undp.org/hiv/publications/toolkit/toolkit.html>]

Considering HIV/AIDS in development assistance: a toolkit, Commission of European Communities (1997)

[www.worldbank.org/aids-econ/toolkit]

Author: Fransen, L. and Whiteside, A.

HIV/AIDS NGO/CBO Support Toolkit. The AIDS Alliance

[www.aidsalliance.org/ngosupport]

Support Toolkit with over 500 downloadable resources and supporting information. The toolkit includes practical information, tools and example documents to help those working to establish or improve NGO/CBO support programmes. The toolkit also describes key components of NGO/CBO support programming, based on the Alliance's experience. It also includes resources from a wide range of other organisations to bring different perspectives and experiences together.

TOP Contacts

We know of only a few organisations or contact persons that specifically deal with the link between HIV/AIDS and water. For organisations or programmes that deal with HIV/AIDS in general see TOP Websites.

The Mvula Trust [<http://www.mvula.co.za>]

The Mvula Trust is a dynamic, innovative and professional water supply and sanitation non-governmental organisation (NGO). They are a leader within the water services sector with proven results for hundreds of projects.

The Mvula Trust's mission is to improve the health and welfare of poor and disadvantaged South Africans in rural and peri-urban communities by increasing their access to safe and sustainable water and sanitation services.

Contact person:

Kathy Eales & Nomsa Mbovani

The Mvula Trust

PO Box 32351

2017 Braamfontein

South Africa

The Royal Tropical Institute (KIT) [<http://www.kit.nl>]

The Royal Tropical Institute (KIT) is an independent centre of knowledge and expertise in the areas of international and intercultural cooperation. The aims of KIT are to contribute to sustainable development, poverty alleviation, and cultural preservation and exchange.

Within the Netherlands, it seeks to promote interest in and support for these issues.

Contact persons:

Madeleen Wegelin
Senior Advisor HIV/AIDS
m.wegelin@kit.nl

Evelien Kamminga
Senior Advisor Social Development and Gender Equity
e.kamminga@kit.nl

The Royal Tropical Institute (KIT)
Mauritskade 63
1092 AD Amsterdam
The Netherlands
Phone: +31 (0)20 568 8711
Fax: +31 (0)20 6684 579

TOP Quiz

This quiz covers basic facts about the HIV epidemic and the linkages between HIV/AIDS and the water and sanitation sector. It has been drawn up to assist you in assessing your current knowledge and understanding of the global epidemic and its impact on the water and sanitation sector. It is partly adapted from the UNDP HIV and Development Programme. Please begin by reading through the questions and noting down your response to each. After completing the questionnaire, check your answers.

Please note your answer

1. Infected people can pass the virus on to others through their sexual or injecting drug use behaviour for the remainder of their lives. True False
2. Most infected people do not know they are infected. True False
3. You can tell when a person is infected by looking at her or him. True False
4. For most people, there is only a short time between infection and the onset of HIV-related illnesses and AIDS. True False
5. Fifty per cent of all new cases of infection in the world occur in women. True False
6. The sexual transmission of the virus is facilitated by the presence of sexually transmitted infections. True False
7. Most of the opportunistic infections that occur during HIV infection can be treated with effective drugs. True False
8. Among the drugs used to treat persons infected with HIV, only the antiretrovirals (ARV) can cure HIV infection. True False
9. HIV/AIDS is a health problem and does not affect the water and sanitation sector. True False
10. The HIV/AIDS epidemic influences demand for water and sanitation services. True False
11. HIV/AIDS has no effect on sustainability of water supply services. True False
12. Water, sanitation and hygiene education are key services for impact mitigation. True False
13. HIV transmission through breast feeding can be avoided by ensuring access to safe water for bottle feeding. True False
14. Mainstreaming of HIV/AIDS in the water sector includes an assessment of the impact in the organisation itself and on the programmes that are being carried out by the organisation. True False

TOP Answers

1. Once infected with HIV, a person is infected and infectious to others for life.

The virus can be passed on to others in a limited number of known ways:

- through unprotected penetrative sexual intercourse and injecting drug use;
- from pregnant women to their children;
- via contact with contaminated blood and tissue or organs used for transplantation.

The most common route, in 90% of new infections in adults, is through unprotected penetrative sexual intercourse. HIV transmission happens more easily where a person already has a Sexually Transmitted Disease (STD). HIV infection may be passed from a woman to her child before or during delivery or, under certain circumstances, whilst breast-feeding. Furthermore, transmission can occur through injecting drug use, blood transfusion, tissue and organ transplant.

Shortly after infection, there is a period of acute infectivity when a person is highly infectious for a short period, usually about two or three weeks. Following this period of acute infection, almost all people enter a period of several years in which they are well and have no signs or symptoms of HIV infection. During this period, a person is capable of transmitting the virus to others. Once an infected person begins to experience HIV-related illnesses or conditions, the likelihood of infecting others increases.

2. The overwhelming majority of the estimated 38.6 million adults who are living with HIV/AIDS (UNAIDS, 2002) in the world do not know they are infected.

In most parts of the world, the facilities for voluntary, confidential testing are not widely available or not available at all. People may suspect that they could be infected but, where opportunities for counselling and voluntary blood testing are not widely available, people do not have any way of knowing their infection status. Since knowledge of HIV infection status can be a factor in motivating people to change their behaviour, the establishment of such facilities is an important aspect of national HIV programs.

Even if testing were available, people may choose not to be tested where there is discrimination against infected people. Women may choose not to be tested because they feel powerless to prevent their husbands or sexual partners from infecting them or because they know that, even if they were infected, they would still have to continue carrying out their responsibilities. Moreover, they are likely to be accused of spreading the infection when they are the first to find out through the birth of an infected baby.

The advantages of being tested include: the ability to plan for one's future and that of one's children, setting aside fear and uncertainty, an incentive to prevent infection or re-infection, and for those who are infected, an ability to make changes in lifestyle and circumstances which may slow down the progression of the illness.

3. You cannot tell by looking at a person without symptoms that he or she is infected.

After the period of acute infection, there may be no observable signs of HIV infection for many years, perhaps a decade or more. When illnesses begin, certain HIV-related conditions (opportunistic infections) can be clinically diagnosed by trained personnel.

4. Progression from HIV infection to the onset of HIV-related illnesses and AIDS is relatively slow.

Studies in the United States showed that, on average, 10 years after infection occurred, 50% of those infected will have developed AIDS and some will have died, another 30% will have had some symptoms of progression and the remaining 20% will still be without symptoms ("asymptomatic"). The time from the onset of AIDS to death has been found to be around 2 years although, with improvements in lifestyle and treatment, this period may be lengthened.

These averages mask the fact that many infected people continue to lead productive and healthy lives without illness for more than ten years. Also, some people diagnosed with AIDS have continued to be well and productive for many years. Our knowledge of the eventual outcome for people who have remained well for more than ten years is limited by the newness of the epidemic.

Progression from infection to HIV-related illness may be delayed through good nutrition, reduction of stress and anxiety, adequate rest and exercise and a positive outlook on life. Factors, which may hasten progression, include repeated exposure to HIV, recurrent sexually transmitted diseases (STD), drug use, excessive alcohol consumption and stress.

5. UNAIDS and WHO estimate today (December 2002) that 50% of all infected adults in the world are women.

In 1998, this figure was 43%, which indicates, unfortunately, that when it comes to HIV infection, women have achieved equality with men.

More and more women are becoming infected with HIV. In sub-Saharan Africa, according to 15 studies conducted in nine different African countries, there were between 12 and 13 women infected for every 10 men infected. In South and Southeast Asia and the Caribbean, the proportion of man and woman infected with HIV is in the order of 35%. Elsewhere the proportion is also approaching equilibrium, although more slowly.

6. The likelihood of transmission of the virus during unprotected penetrative intercourse is significantly increased by the presence of genital lesions, scarification, inflammation or infections.

Genital damage may be the result of poor hygiene, infections of the genito-urinary tract, sexually transmitted infections, trauma from sexual activity, childbirth and abortion, and traditional practices such as female genital mutilation. The presence of some genital conditions may increase the likelihood of transmission from less than 1% to 50% for an act of unprotected penetrative intercourse.

7. There is effective treatment for most opportunistic infections.

In most cases, there are effective drugs for treating opportunistic infections (for example, tuberculosis, which represents one of the grave and frequent afflictions in the course of AIDS). Considering the multiplicity of possible infections, everything must be done to make it possible to identify the cause of the infection as early as possible. Its identification makes it possible to treat it in a specific manner and to prevent trial-and-error treatment.

Treatment and prevention of opportunistic infections associated with unsafe water and lack of sanitation, hygiene and proper nutrition can make it possible to considerably improve the life expectancy of HIV patients and to reduce the morbidity of these infections.

8. Antiretroviral drugs (ARV) do not cure HIV infection.

Even though taking antiretrovirals regularly makes it possible to reduce the quantity of virus in the organism and, consequently, to delay the development of infection, we cannot yet speak of curing. It is also believed that taking these drugs irregularly is an essential factor in the appearance of resistance to the virus.

The guidelines from UNAIDS, WHO and the International AIDS Society also state that 'due to the high cost of antiretroviral drugs, the complexity of regimens and the need for careful monitoring, specific services and facilities must be in place before considering the introduction of anti-retroviral drugs in any setting'. In many developing countries those services and facilities do not exist and access to these drugs must therefore be improved together with the delivery of adequate and reliable health services for the poor.

9. HIV/AIDS is a problem that affects all development sectors, including water and sanitation

It is now internationally recognized that HIV/AIDS is a complex medical, social, economic, political, cultural and human rights problem, which cuts across all sectors of developing societies. Therefore HIV/AIDS prevention, care, treatment and support and impact mitigation has to be integrated into the mainstream of development planning, including in poverty eradication strategies, national budget allocations and sectoral development plans.

10. The HIV/AIDS epidemic influences demand for water and sanitation services

The general trend is that population growth rates and life expectancies are plunging. This situation causes overall demand to decrease. On the other hand, demand for services may increase locally as a result of an urban-rural migration flow, as infected people tend to return to their rural home area to die or orphans are sent to family in the rural areas. In urban areas demand may increase due to migration of people in search for employment opportunities in towns.

Due to the HIV/AIDS epidemic, people's need for clean and sufficient water and sanitation increases for reasons of health, the provision of care and for productive use.

11. Sustainability of water and sanitation services is at risk due to HIV/AIDS

The ability of water users to pay water fees is reduced due to affected households losing their primary breadwinners, overall livelihood insecurity and increased medical expenditures.

This will have an effect on the basic principles of demand responsiveness as precisely the target group that will need the services most, may be the group that cannot afford to pay.

Also the ability of water users to spend time and energy on management activities is affected, while at the same time there is an erosion of management capacities due to loss of people who have been trained in various aspects of management, operation and maintenance.

Demand responsiveness of services may be affected by lack of participation in planning, decision making and implementation of affected households because of lack of time, skills or authority (children headed households).

12. Water and sanitation services are crucial for mitigating impact of HIV/AIDS

Water and sanitation services play a key role in mitigating the impact of HIV/AIDS:

- a) Staying healthy: Diarrhoea and skin diseases are common opportunistic infections that can be reduced by safe water supply and sanitation.
- b) Home- based care: a reliable water supply and good sanitation are indispensable for bathing, washing, cleaning and disinfecting the home environment, water for taking drugs, and comfort and dignity of patients.
- c) Labour saving: Improved access to water supply provides important labour saving benefits to households affected by HIV/AIDS.
- d) Water for productive use: Access to water increases food security, which in turn helps people to remain healthy. Water is also a possible source for income generating activities such as beer brewing, food production and tending of livestock.

13. HIV transmission through breast-feeding can be avoided by ensuring access to safe water for bottle-feeding

There is a one-in-three risk that an HIV positive woman transmits the virus to her baby through breast milk, even if the child was born HIV negative. The 'obvious' solution would be to not breastfeed the child, but this has proven to be very difficult because of social, cultural and economic reasons (cost and availability of powdered milk, stigma, tradition). If these impediments can be overcome, access to safe water is an absolute must and must be coupled with hygiene education for cleaning, water handling practices and sound sanitation practices to prevent the baby to fall ill with diarrhoea.

14. Mainstreaming of HIV/AIDS in the water sector includes an assessment of the impact on water organisations internally and on the programmes that are being carried out by these organisations

Water organisations need to assess the impact of HIV/AIDS internally in terms of staff infections, prevention of further spread and required support to those affected and infected through a number of strategies. Without an internal assessment, the sustainability of the operation of programmes becomes doubtful. It is also necessary to create an atmosphere in which staff will be more perceptive to the needs of people affected by HIV/AIDS in their programmes and to put effort in reducing discrimination and stigma. External mainstreaming concerns addressing and anticipating the impact of HIV/AIDS on programmes and services provided and the possible effect of such programmes on the spread of HIV/AIDS.

List of abbreviations and acronyms

AIDS	Acquired Immune Deficiency Syndrome
FAO	Food and Agriculture Organisation
HAART	Highly Active Anti-Retroviral Treatment
HIV	Human Immunodeficiency Virus
IAEN	International AIDS Economic Network
ICW	International Community of Women Living with HIV/AIDS
IEC	Information, Education and Communication
ILO	International Labour Organisation
IRC	International Water and Sanitation Centre
KIT	Royal Tropical Institute
NAPWA	National Association of People Living with AIDS
NGO	Non-governmental organisation
PLWHA or PLWA	People living with HIV/AIDS
PRSP	Poverty Reduction Strategy Paper
RBA	Rights-based approach
SARAR	Participatory training process (Self-esteem, Associative strengths, Resourcefulness, Action planning, Responsibility)
SLA	Sustainable Livelihoods Approach
STD	Sexually Transmitted Diseases
TANESA	Tanzania Netherlands Support to AIDS Programme
TOP	Technical Overview Paper
UN	United Nations
UNAIDS	United Nations AIDS Fund
UNDP	United Nations Development Programme
UNDCP	United Nations International Drug Control Programme
UNESCO	United Nations Education, Scientific and Cultural Organisation
UNICEF	United Nations Children Fund
UNFPA	United Nations Population Fund
VCT	Voluntary Counseling and Testing
WHO	World Health Organization

About IRC

IRC facilitates the sharing, promotion and use of knowledge so that governments, professionals and organisations can better support poor men, women and children in developing countries to obtain water and sanitation services they will use and maintain. It does this by improving the information and knowledge base of the sector and by strengthening sector resource centres in the South.

As a gateway to quality information, the IRC maintains a Documentation Unit and a web site with a weekly news service, and produces publications in English, French, Spanish and Portuguese both in print and electronically. It also offers training and experience-based learning activities, advisory and evaluation services, applied research and learning projects in Asia, Africa and Latin America; and conducts advocacy activities for the sector as a whole. Topics include community management, gender and equity, institutional development, integrated water resources management, school sanitation, and hygiene promotion.

IRC staff work as facilitators in helping people make their own decisions; are equal partners with sector professionals from the South; stimulate dialogue among all parties to create trust and promote change; and create a learning environment to develop better alternatives.

IRC International Water and Sanitation Centre

P.O. Box 2869

2601 CW Delft

The Netherlands

Tel. +31 (0)15 219 29 39

Fax. +31 (0)15 219 09 55

E-mail: general@irc.nl

Internet <http://www.irc.nl>