



***The importance of access to safe water and sanitation for the efficient caregiving of those suffering from HIV/Aids was highlighted during a recently completed research project. Lani van Vuuren reports.***

**T**he project was initiated by the World Health Organisation (WHO) and entailed a series of short-term assessments in resource poor urban and rural communities in several countries to determine how the quality of home-based care is influenced by the type and adequacy of water, sanitation and hygiene arrangements. In South Africa, the Water Research Commission managed the project on behalf of WHO while providing additional funding for research.

"Water, sanitation and hygiene are essential underpinnings to home-care strategies, particularly in relation to HIV/Aids, however, this is poorly

recognised by either the health sector or the water and sanitation sector," WHO said in a statement. "The overall goal (of this project) was to produce evidence-based guidance on water and sanitation needs in home-based care strategies, particularly in resource-poor situations."

### **WATER AND AIDS**

The spread of HIV/Aids in sub-Saharan Africa is taking place at an alarming rate. It is reported that 70% of all adults and children infected with the virus live on the sub-continent. HIV/Aids typically strikes adults in the prime of their lives when these people are most economically active.

Since HIV/Aids is not a waterborne disease, water and Aids seem to bear very little relation to each other. However, closer scrutiny reveals that there are significant linkages between Aids and water, reports Dr Natasha Potgieter of the University of Venda, who undertook the South African-based assessment of the WHO project.

"The provision of safe water to HIV positive and Aids individuals is paramount as they live with compromised immune systems and are therefore more susceptible to waterborne diseases," she tells *the Water Wheel*. In many areas where HIV/Aids infected people do not have access to antiretroviral treatment, safe drinking water

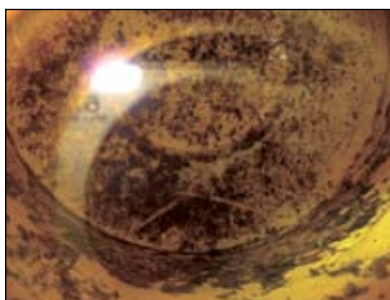
helps them to avoid some opportunistic infections and diarrhoea.

The majority of HIV/Aids patients are cared for within their local communities. Water is needed for bathing, washing soiled linen and clothing, keeping the home environment clean, taking medicine and preparing food. In these instances it is important that water supply points and toilets are accessible and close to where they are needed to reduce the burden of a long walk and to maintain the dignity of the patients.

## THE ASSESSMENT

Research was conducted in peri-urban and rural communities in Limpopo, the Eastern Cape and Mpumalanga over an eight-month period. Dr Potgieter points out that, since HIV/Aids remains an unmentionable topic to many South Africans, it was important that the research be done in an atmosphere of trust. Information was mainly gathered through home-based care groups already working in the selected communities. Confidentiality was a crucial aspect of the research as many HIV/Aids sufferers did not want their status disclosed to friends or relatives.

In general, the prevalence of HIV/Aids infected individuals in these communities was relatively high. Most people



*Water is often stored in unhygienic conditions.*



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in the study areas lived below the breadline of R1 200 a month. Many of the households relied solely on government social grants (including pensions, disability grants and child support grants). This placed many people in compromising positions to earn extra income; for example, many women were forced into prostitution thereby leading to the further spreading of HIV/Aids.

Most of the areas studied were serviced with safe water in some form or another. However, it was found that households did not always have easy access to these water sources, nor was the water always available to them. It is most likely that this had an effect on the quantity of water that individuals brought into the household – none of these areas surveyed brought in the minimum baseline of 25 ℓ per person per day.

Collecting water when the municipal supply (i.e. piped water, boreholes) was not available was challenging. This meant water collectors had to walk through bushes and uneven terrain to get to remote and often unsafe sources, such as rivers and springs. This was an exhausting task for people living with HIV/Aids. Not only were these areas far removed from the household, they were also dangerous – the sources were often in secluded areas increasing the danger of



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*In many cases the toilet structures assessed bore ample opportunity to cause or transmit disease.*

women being attacked. Dr Potgieter reports that those households whose only alternative water source was the next village's standpipes had to walk between two and five kilometres there and back again.

**“Elements such as dung-smeared floors, root of fires in the huts, the presence of insects and unhygienic households practices compromised the safety of the water stored.”**

The average household brought in only 14 ℓ to 16 ℓ per person per day. This water had to be used for hand washing, bathing patients, cleaning wounds, taking medication, cleaning the dwelling, laundry, cooking and preparing food. Dr Potgieter notes that apart from the fact that households brought in very little water for personal use, they also created opportunities for the water to become contaminated during storage at home. “People did not always take precautions to treat and protect their water. Elements such as dung-smeared floors, root of fires in the huts, the presence of insects and unhygienic households practices compromised the safety of the stored water.”

## SANITATION AND HYGIENE

The assessment found that although most of the households did have some kind of toilet infrastructure, the majority were sub-standard, unsafe or structurally dangerous and, in many cases, these toilet structures bore ample opportunity to cause or transmit disease. In addition, most of the ventilated improved pit toilets were not constructed according to acceptable standards.

Caregivers found it difficult to assist patients to use the toilets because they were often small, narrow structures. In addition, the distance from the dwelling made it difficult for patients to access.

Dr Potgieter reports that an attitude of apathy towards sanitation reigned in most of the communities surveyed. “Many people felt that their toilets were not worth cleaning, and said they would only clean those toilets provided by government. Ironically, it was found that the State RDP toilets were not cleaned either.” The households in all the areas surveyed were more likely to wash their hands after they had used the toilet and before eating their meals than any other time.

## CONCLUSIONS AND RECOMMENDATIONS

The assessment underlined the importance for people living with HIV/Aids and their caregivers of having reliable access to safe water supply. When leakages and breakages leave communal taps useless, people are forced to return to unsafe water supplies exposing them to all kinds of health risks.

“Those that did not have alternative water sources were forced to go without and/or resort to store water for long periods of time. This meant that they could not drink enough water to stay hydrated, drink their medication, prepare food or keep themselves and their environment

## FACTS & FIGURES



According to the Human Sciences Research Council (HSRC), there were 571 000 new HIV infections in South Africa in 2005. This translates into roughly 1 500 new infections per day. Of all new HIV infections, 34% occurred in young people in the 15-24 age group. The incidence rates among young women in the prime childbearing age are especially alarming. The HIV incidence in the age group 20-29 is 5,6%, six times more than in males of the same age. Among young people in the 15-29 age group, women account for 90% of all recent HIV infections.

People living in informal urban settlements have by far the highest incidence rates, followed by those living in rural informal areas, rural formal areas, and urban formal areas. The HSRC reports that this indicates that poverty plays a significant role in increasing vulnerability to HIV.

To access the HSRC report, *National HIV Incidence Measures – New Insights Into the South African Epidemic*, go to <http://www.hsrb.ac.za/Document-2067.phtml>

clean. This further increased the health risk due to the unavailability of water,” notes Dr Potgieter.

While it is recognised that local governments are making progress in the provision of basic water and sanitation services, the effectiveness of present systems provided should also be considered. Improved water systems and an increased number of water supply points are recommended to alleviate this problem.

In addition, sanitation remains a challenge. In all the areas studied access to safe sanitation was extremely poor. Many households had sub-standard toilets or no toilets

at all. Full and overflowing toilets exposed people to various diseases while inadequate substructures were in danger of collapsing in the rain. It is clear that sanitation requires more attention, and that those who receive no service at all should receive first priority.

Sharing correct information is also crucial. For example, it was found that in the areas where people received groundwater they were under the impression that the water was treated (this was not the case). Therefore they believed they themselves did not have to treat this water. This information is important, especially when water is stored for indefinite periods. Hygiene education in these communities is also imperative.


It is hoped that the results of this assessment will assist decision-makers, HIV/Aids programme



*Water, sanitation and hygiene are essential underpinnings to home-care strategies.*

managers and donors to improve the lives of people living with the disease.

Dr Potgieter is also the project leader for a follow-up study on the adequacy and quality of water, sanitation and hygiene

practices for the efficient caregiving of those suffering from HIV/Aids over the next two years in all provinces of South Africa. This project is being funded by the Department of Health, Medical Research Council and the WRC. 

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