This WASHplus Weekly highlights recent reports and journal articles that discuss the integration of water, sanitation and hygiene services (WASH) with HIV/AIDS programs. It includes a comprehensive guide from USAID and WHO on integrating WASH practices into HIV care. A Cochrane Review of home-based care for HIV/AIDS patients found that home-based safe water systems reduced diarrhea frequency and severity. Also included are training manuals prepared by the USAID AIDSTAR Project and the Institute of Water and Sanitation Development in Zimbabwe.

**EVENTS**

- **IAS Conference on HIV Pathogenesis, Treatment and Prevention (IAS 2011)**
  - [Link to conference website](#): The world’s largest open scientific conference on HIV/AIDS will be held in Rome, Italy on July 17-20, 2011.

**REPORTS**

- **How to Integrate Water, Sanitation and Hygiene into HIV Programmes**, 2010. USAID; WHO. [Link to full-text](#)
  This document is the first comprehensive guide to integrating WASH practices into HIV care. It was written in response to requests from countries and programs for clear instruction on how to develop care programs at the national level. It contains guidance on implementing priority WASH practices, including WASH in global and national HIV/AIDS policy and guidance, and integrating WASH-HIV programs.

- **Apparent Impact of Enteric Pathogens in Drinking Water and Implications for the Relentless Saga of HIV/AIDS in South Africa**, 2010. MNB Momba, Tshwane University of Technology. [Link to full-text](#)
  This report highlights the current situation regarding water quality and its impact on the condition of diarrheal diseases in individuals with HIV/AIDS.

- **Home-based Care for Reducing Morbidity and Mortality in People Infected with HIV/AIDS (Review)**, IN: The Cochrane Library, 2010. T. Young, Medical
Research Council. ([Link to full-text](#))

Intensive home-based nursing significantly improved self-reported knowledge of HIV and medications, self-reported adherence and differences in the refill of pharmacy drugs. Home-based safe water systems reduced diarrhea frequency and severity among persons with HIV in Africa.

- **Improving the Lives of People Living with HIV through WASH: Water Sanitation and Hygiene**, 2010. AIDSTAR. ([Link to trainers and participants guides](#))
  
  This training guide provides an easy to follow training template suitable for a 3 to 4 day training targeting health workers and supervisors at health clinics. The Participant Technical Resource Guide provides practical and evidence-based information for WASH implementation in all types of health facilities in resource-limited countries, focusing on increasing the health of people living with HIV.

  
  The objective of the ZIMWASH project is to strengthen the capacity of civil society and local government in Zimbabwe to provide sustainable integrated water, sanitation and hygiene services that address the needs of the rural poor, especially those of people infected and affected by HIV/AIDS. It was against this background that a training of trainers workshop on Participatory Health and Hygiene Education (focusing on HIV and AIDS) was conducted in Hwange District. This manual provides the schedule and training materials for the five-day workshop.

- **Research Award Opens Door to Study of Safe Drinking Water and Diarrheal Diseases in PLHIV**, 2011. Pre-conference post at IAS HIV Pathogenisis, July 2011. ([Link to blog post](#))
  
  Excerpt from Joe Brown, Lecturer in Environmental Health, London School of Hygiene and Tropical Medicine, “Based on previous research conducted by our partners at the University of Zambia School of Medicine and in collaboration with us at LSHTM, we have identified post-collection recontamination of water to be perhaps the most critical issue in terms of safe water access in this community. Ours will be the first clinical trial of safe water storage globally and among the first water quality intervention studies conducted specifically with the goal of assessing impacts among PLHIV.”

- **Research Brief: Integration of Water, Sanitation and Hygiene into HIV Programs: Lessons from Malawi**. Catholic Relief Services. ([Link to full-text](#))
  
  The evaluation of the pilot project showed substantial changes in the six targeted behaviors. Among home-based care clients, in the area of water treatment and storage there was a 45% increase in water treatment (though the period of measurement before survey differed), a 23% increase in use of covered water storage containers, and a 53% increase in using a two-cup system to draw water.
• Water and HIV: Working for Positive Solutions, n.d. ACF International. (Link to full-text)
This report paints a vivid picture of the water and sanitation needs of individuals and households affected by HIV/AIDS in Zambia. These needs are particularly great in terms of access, quantity of water and design of facilities.

• Water, Sanitation and Hygiene Considerations in Home-Based Care for People Living with HIV, 2010. Catholic Relief Services. (Link to full-text)
This guidance document offers water supply and sanitation facility and hygiene promotion design considerations and recommendations intended to increase access to these facilities by people living with HIV. This guidance document is intended for home-based care practitioners serving people living with this disease as well as water and sanitation engineers and technicians tasked with providing community water supply and household sanitation systems.

• Waterborne Pathogen Infection Rates For People Living With HIV/AIDS, 2009. Centre for Affordable Water and Sanitation Technology (CAWST). (Link to full-text)
CAWST has prepared summaries on HIV/AIDS statistics for Africa, Asia, Latin America and other regions.

JOURNAL ARTICLES

• Case-control Study to Determine Risk Factors for Diarrhea among Children During a Large Outbreak in a Country with a High Prevalence of HIV Infection. IN: Int J Infect Dis November 2010. A. Arvelo, Centers for Disease Control and Prevention. (Link to abstract)
Between January and March of 2006, over 35 000 diarrhea cases and 532 deaths were reported among children under the age of five in Botswana. During this diarrhea outbreak in a country with a national program to prevent mother-to-child transmission of HIV, ill children were less likely to be breastfed and more likely to have been exposed to environmental factors associated with fecal contamination. These findings underscore the importance of adequate access to safe water, sanitation, hygiene, and nutrition education among populations using breast milk substitutes.

• Diarrhea Prevention in People Living with HIV: An Evaluation of a Point-of-use Water Quality Intervention in Lagos, Nigeria, IN: AIDS Care March 2011. E. Barzilay, Centers for Disease Control and Prevention. (Link to abstract)
Diarrhea is a leading cause of morbidity and mortality in people living with HIV (PLHIV) in Africa. The impact of a point-of-use water chlorination and storage intervention on diarrheal-disease risk in a population of HIV-infected women in Lagos, Nigeria was evaluated. Point-of-use water treatment was associated with a reduced risk of diarrhea in PLHIV. Regular water treatment was required to achieve health benefits.

In Malawi, free fortified porridge and water hygiene packages were offered to mothers to encourage frequent post-natal visits and to reduce diarrheal rates in infants on replacement feeding. Participant retention and infant health outcome were assessed. The majority of participants adhered to their scheduled visits and retention was favorable, possibly because of the introduction of hygiene and nutrition incentives. The infant diarrheal rate was low, suggesting benefits of regular medical care with hygiene package usage and reliable replacement feeding options.

• Women's Morbidity and Mortality in the First 2 years after Delivery According to HIV status, IN: AIDS November 2010. A. Coutsoudis, University of KwaZulu-Natal, Durban, South Africa. (Link to abstract)

HIV-infected women experienced more morbidity and mortality than HIV-uninfected women; this was predicted by maternal immune status and socio-economic factors. HIV-infected women even in the high CD4 strata had higher mortality than HIV-uninfected women from the same population. This study underlines the importance of interventions to improve maternal health, for example, timely antiretroviral treatment, tuberculosis screening, and improved water and sanitation.

WASHplus Weeklies will highlight topics such as Urban WASH, Indoor Air Quality, Innovation, Household Water Treatment and Storage, Handwashing, Integration, and more. If you would like to feature your organization’s materials in upcoming issues, please send them to Dan Campbell, WASHplus Knowledge Resources Specialist, at dacampbell@aed.org.