



Environment

Water Community



AIDS Community



Solution Exchange for the Water Community **Solution Exchange for the AIDS Community** **Consolidated Reply**

Query: WatSan Services for PLHIV - Examples; Experiences

Compiled by Pankaj Kumar S. and E. Mohamed Rafique, Resource Persons and Ramya Gopalan and Rituu B. Nanda, Research Associates

Issue Date: 17 September 2007

From [Brijmohan Kandpal](#), SIMAR, Uttaranchal
Posted 9 August 2007

I work for SIMAR, an NGO working in Chamoli and Bageshwar districts of Uttaranchal on natural resources, sanitation, and health issues. The state has a high proportion of incoming migrant labour mainly from Eastern India, as well as outgoing labour of Uttaranchalis working in other states who return home for short periods. Both these migrant populations are prone to HIV, with the non-mountainous districts like Dehradun and Nainital being the potential hotspots. Additionally, we are concerned about some of the complex and multi-dimensional effect that Water, Sanitation, and Hygiene (WASH) and HIV have on each other. These are:

- People Living with HIV (PLHIV) have lower immunity, making them highly susceptible to opportunistic infections (OI), most of which are related to WASH.
- Adequate safe water is essential for domestic and medical purpose. Lack of access to safe water for PLHIV will enhance their vulnerability and morbidity.
- Water borne diseases like typhoid and gastroenteritis further compromise the immunity of PLHIV, increasing the mortality. In addition, OI increase the need for Anti Retroviral Treatment.
- Decreased supply or quality of water requires extra work from caregivers to fetch water usually from distant sources. This in turn may increase the economic burden, as PLHIV may need to buy water.
- PLHIV carry the triple burden of stigma, poverty, and unemployment. Hence, they have minimal say in WASH services or decisions at community level.

Due to the reasons listed I request the members to share their expertise with regard to the following:

- Experiences of special care and precautions regarding safe water, sanitation, and hygiene undertaken for PLHIV.
- Examples and References of research studies, papers, articles, and the like on linkages between HIV and safe water, sanitation and hygiene.
- Measures to sensitize PLHIV, Health Care services and the broader community regarding the special water requirements for PLHIV.

Your inputs will help us in understanding and designing water and sanitation interventions to be sensitive to needs of PLHIV, and will be deeply appreciated.

Responses were received, with thanks, from

1. [Ruben F. del Prado](#), UNAIDS, Guyana and Suriname
2. [Anand S Kurup](#), WHO, Geneva
3. [Aditi Chowdhary](#), AIDS Research and Control Centre (ARCON), Mumbai
4. [K. B. Sudheer](#), UNDP-TAHA Project (Kerala SACS), Trivandrum
5. [Soumya Sarkar](#), Prantik Jana Vikash Samity, West Bengal, Kolkata
6. [Rajendra B Jani](#), Raman Development Consultants, Ahmedabad
7. [Alka Narang](#), UNDP, New Delhi
8. [Anshuman Tripathi](#), National Mineral Development Corporation Ltd., Bellary
9. [Kulwant Singh](#), UN-HABITAT, New Delhi

Further contributions are welcome!

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Summary of Responses

The query asked members to share experiences related to the importance and design of Water, Sanitation and Hygiene (WSH) services for People Living with HIV (PLHIV) and received suggestions, case studies and references as inputs.

Discussing the **disease impact** of poor WSH on PLHIV, members stressed that HIV is not a water-related disease and is not spread by contaminated water or poor hygiene. However, poor WSH conditions have a devastating impact on PLHIV, whose compromised immunity makes them highly susceptible to other diseases and infections, called 'opportunistic infections' (OI). Many of these OIs are related to poor water supply, sanitation, and hygiene, such as diarrhea typhoid and gastro-enteritis, while the risk of malaria is enhanced by poor drainage that create mosquito-breeding sites around communities. These diseases have a disastrous effect and break down the body and its immune system rapidly.

Exploring **other linkages** between HIV and WSH, members stressed that WSH are key factors in ensuring health and cited a website underlining the merits of [hand washing](#). Drinking or cooking with unsafe water is dangerous because of the risk of infection. Respondents also stressed the enhanced demand of safe water for taking medicines and Anti Retro Viral (ARV) pills, bathing patients and washing soiled clothing and linen. Water is also required to keep the environment of

the house and toilets clean in order to reduce the risk of OIs and to provide home-based care to PLHIV. Thus, discussants pointed out that PLHIV require more water than the standard norm of 20 litres per capita per day. Moreover, since most caregivers are girls, women, and children, the time spent on taking care of PLHIV could even have an impact on education, leading to dropouts, feared members. Fetching water can particularly be a strain for PLHIV, who experience fluctuating and diminishing energy levels or side effects from ARV medication. The group also pointed that PLHIV may need to buy safe water, which could increase the household expenses. On the positive side, improved water supply could allow the household to take up income generating work due to time saved and in enterprises that depend on adequate water supply.

The group underscored the vital importance of **access to toilets** to PLHIV and pointed out that as people approach the terminal stage, access to sanitation facilities becomes important, as people cannot travel long distances to access toilets due to much lower energy levels. People without toilets defecate by bushes or in open spaces, which further leads to the vicious cycle of poverty, disease and bad hygiene for PLHIV as well as other people. In this context, members mentioned a project by [UN-HABITAT](#) working with Self Help Groups of poor women in **Madhya Pradesh** with high prevalence of HIV.

Discussants cited numerous **studies and experiences** to support the above discussion. A study among PLHIV in [Uganda](#) traces the use of a home-based safe water intervention to reduce incidence of diarrhea. Another thematic overview paper members mentioned views linkages and impact areas between HIV and WSH from various perspectives. Also, it outlines lessons learned in preventing and mitigating effects of HIV both outside and inside WSH sector. Members also suggested documents for preparing a checklist for integrating WSH issues in HIV projects and for developing a strategy for increasing access by the poorest to safe water and healthy sanitation to mitigate impact of HIV. Additionally, members presented a [study](#) showing the high vulnerability of people living near the Ganga in Varanasi to various water-borne diseases such as acute gastrointestinal disease, cholera, dysentery, hepatitis-A, and typhoid, thus establishing a conclusive link between WSH and OIs.

Discussing measures to **increase awareness** of PLHIV, Health Care services and the broader community regarding the special WSH requirements for PLHIV, members reported that NGOs and networks of PLHIV have started incorporating messages on safe WSH practices into their works. However, they felt that such communication could be made more consistent and comprehensive. Discussants also cited a [study](#) from states of [Tamil Nadu and Andhra Pradesh](#), which concludes that PLHIV recognize the need for safe WSH practices better than most people. However, barriers-such as limitations of time, economic constraints, lack of individual household toilets, lack of fuel for boiling water, and water scarcity prevented the application of this knowledge into practice.

Members also outlined following **suggestions** regarding WSH from the angle of PLHIV:

- Water supply points and toilets need to be close to where they are needed by PLHIV.
- With increased spread of HIV, water collection tasks are increasingly falling on children and the elderly, which the design of hand pumps, could take cognizance of.
- Develop behavior change communication (BCC) material; Improve BCC with PLHIV, caregivers, other family members; build capacities in BCC of key people like NGOs, professionals, volunteers, peer educators, and service providers.
- Increase awareness among both HIV and WSH staff at all levels.
- Build monitoring tools to facilitate maintenance of WSH behavior.

- Advocate improved accountability and access to WSH facilities for community and PLHIV and support NGOs working on HIV and networks of PLHIV for such advocacy.
- Integrate hygiene education for HIV trainings for caregivers in home-based care.

The discussion underscored the intimate link between water, sanitation and hygiene on PLHIV in the worst-hit countries and profiled the changing demands from the WSH sector in the light of the HIV epidemic. It emphasized that one of the key components in the fight against HIV was to ensure improved WSH services for PLHIV and poor populations.

Comparative Experiences

Andhra Pradesh and Tamil Nadu

Situation Analysis of WSH among PLHIV (from [Anand S Kurup](#), WHO, Geneva, [K. B. Sudheer](#), UNDP-TAHA Project (Kerala SACS), Trivandrum and [Rajendra B Jani](#), Raman Development Consultants, Ahmedabad)

Study conducted among PLHIV in select urban/rural areas compared their practices and needs in relation to safe water, sanitation, and hygiene and involved a situational analysis and strategy development to address results. Study found that work of NGOs resulted in PLHIV recognizing better the need for safe water, sanitation and hygiene practices. However, time, economic constraints, water scarcity, etc limited the conversion of knowledge into practice. Read [more](#)

International

Uganda

Home-Based, Safe Water Intervention for PLHIV (from [Ruben F. del Prado](#), UNAIDS, Guyana and Suriname)

Between April 2001 and November 2002, households of 509 persons with HIV and 1,521 HIV-negative household members received a Safe Water System (SWS) (i.e. a closed-mouth plastic container, a dilute chlorine solution, and hygiene education) or hygiene education alone. After subsequent dosages and time-lapse persons with HIV using SWS had 25% fewer diarrhea episodes, 33% fewer days with diarrhea and less visible blood or mucus in stools. Read [more](#).

From [Ramya Gopalan](#), Research Associate

Kenya

Safe Water System Improves Health of PLHIV

"Safe Water System" created by U.S. CDC, and promoted and distributed by Population Services International aims to make drinking water safe through disinfection and encouraging safe water storage- improving the health of people living with HIV/AIDS. Members of the Society for Women with AIDS go door-to-door distributing the product and educating consumers. Commissions earned from sales provide them an income to help care for their families. Read [more](#)

South Africa

Spreading Water and AIDS Messages through Billboards on Water Towers

The producers of the children's TV series, Takalani Sesame, use a HIV-positive Muppet, Kami, to relay pertinent AIDS facts from billboards on top of water towers. These public health messages on billboards capture the attention of people particularly children and families living

with HIV, thus promoting healthy behaviors which limit spread of HIV/AIDS and increase the understanding of the importance of access to safe watsan services for PLHIV. Read [more](#)

Related Resources

Recommended Documentation

Effect of Home-Based Water Chlorination and Safe Storage on Diarrhoea among Persons with Human Immunodeficiency Virus in Uganda (from [Ruben F. del Prado](#), UNAIDS, Guyana and Suriname)

Research Article; by John R. Lule *et al*; American Journal of Tropical Medicine and Hygiene; 73(5), 2005, pp. 926–933

Available at <http://www.ajtmh.org/cgi/content/abstract/73/5/926>

Details a randomized controlled trial of a home-based, safe water intervention finding that the system reduced diarrhea frequency and severity among PLHIV in Africa

Water, Sanitation, and Hygiene Behavior among People Living with HIV/AIDS: A Situation Analysis (from [Anand S Kurup](#), WHO, Geneva, [K. B. Sudheer](#), UNDP-TAHA Project (Kerala SACS), Trivandrum and [Rajendra B Jani](#), Raman Development Consultants, Ahmedabad)

Field Note; by Rajendra B. Jani; Water and Sanitation Program-South Asia (WSP-SA); June 2007

Available at http://www.wsp.org/filez/pubs/72200723130_SAHIVAIDSFN.pdf (PDF Size: 195 KB)

Recognizes the need for safe water, appropriate sanitation, and hygiene practices for PLHIV and examines the barriers faced in converting the knowledge into practice.

From [Aditi Chowdhary](#), AIDS Research and Control Centre (ARCON), Mumbai

HIV/AIDS and Water, Sanitation and Hygiene

Thematic Overview Paper (TOP); by Evelien Kamminga and Madeleen Wegelin-Schuringa ; International Water and Sanitation Centre (IRC); The Netherlands; 2006

Available at <http://www.irc.nl/page/3462>

Addresses linkages between HIV/AIDS and WASH from different perspectives and lessons learned in preventing and mitigating effects of HIV/AIDS on the WatSan sector

Zimbabwe Water and Sanitation Sector HIV/AIDS Response - Programme, Strategies and Guidelines

Paper: First Edition; by Harare, Zimbabwe; 2003

Available at [Link](#) (PDF Size: 315 KB)

Contains guidelines/strategies, approaches and suggestions for the integration of HIV/AIDS awareness into the water and sanitation sector activities.

From [Alka Narang](#), UNDP, New Delhi

Strategy For Addressing HIV/AIDS in Programme Activities of the Water and Sanitation Trust Fund

Paper; UN-HABITAT; September 2006

Available at <http://www.unhabitat.org/pmss/getElectronicVersion.asp?nr=2395&alt=1> (PDF Size: 1.34 MB)

Captures perspectives of consumers and users of water and sanitation facilities, especially poor people and service providers in building a HIV/AIDS and WatSan strategy

HIV/AIDS Checklist for Water and Sanitation Projects

Paper; UN-HABITAT; August 2006

Available at <http://www.unhabitat.org/pmss/getElectronicVersion.asp?nr=2068&alt=1> (PDF Size: 470 KB)

Guide to users on appropriate and effective HIV/AIDS intervention strategies, throughout the stages of a project/programme cycle to address HIV/AIDS objectives in WatSan

From [Anshuman Tripathi](#), National Mineral Development Corporation Ltd., Bellary

Isolation of Potentially Pathogenic Escherichia coli O157:H7 from the Ganges River

Paper by Steve Hamner *et al.*; Applied and Environmental Microbiology, 73(7); April 2007

<http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1855664>

Argues that Escherichia coli serotype O157:H7 bacteria collected from the Ganges may be a significant but under acknowledged public health concern, including the HIV +

The Role of Water Use Patterns And Sewage Pollution in Incidence Of Water-Borne/Enteric Diseases Along the Ganges River In Varanasi, India

Paper by S. Hamner *et al.*; International Journal of Environmental Health Research, Vol. 16, No. 2; April 2006

<http://www.ingentaconnect.com/content/tandf/cije/2006/00000016/00000002/art00003>

Shows how sewage treatment in Varanasi failed and argues for effective sewage collection and treatment as essential to end waterborne/enteric diseases including HIV+

From [Ramya Gopalan](#), Research Associate

Research Underpins Value of Water in Fight against AIDS

Article; by Lani van Vuuren; The Water Wheel; July-August 2007

Available at <http://www.wrc.org.za/downloads/waterwheel/jul-aug%2007/Aids%20p%2018-21.pdf> (PDF Size: 495 KB)

Reports on recently completed research highlighting the importance of access to safe water and sanitation for efficient care giving of those suffering from HIV/Aids

HIV/AIDS and Water Supply, Sanitation and Hygiene

Factsheet; by Christine van Wijk; WELL - Resource Centre Network for Water, Sanitation and Environmental Health; December 2003

Available at <http://www.lboro.ac.uk/well/resources/fact-sheets/fact-sheets-htm/hiv-aids.htm>

Details the status of the PLHIV, the increased susceptibility to water related diseases and therefore the need for coping strategies in the water sector as a way forward

What Water, Sanitation and Hygiene can do in East Africa

Country Note; by Gerald Rukunga, David Mutethia and Titus Kioko; African Medical and Research Foundation (AMREF); WELL - Resource Centre Network for Water, Sanitation and Environmental Health Country Note 5.4

Available at [Link](#)

Focuses on inter-linkages between HIV/AIDS and water, sanitation and hygiene in Kenya, Uganda and Tanzania, through examples showcasing impact of watsan on PLHIV.

The Impact of HIV/AIDS on Water and Sanitation

Article; by Joseph Mutsigwa; Newsletter Vol. 3, Issue No.1; Yonge Nawe Environmental Action Group; Swaziland; 2004

Available at [Link](#)

Explains how the HIV/Aids epidemic affects demand for accessible, reliable and affordable watsan services and thus the need now for these services is even more acute

Success Stories HIV/AIDS: Safe Water System Improves Health of People Living with HIV

Article; Bureau for Global Health, USAID; May 2004
<http://www.psi.org/news/safewater.pdf> (PDF Size: 1.97 MB)

Details the experience of using Safe Water Systems, which play an important role in saving the lives of some of the most vulnerable communities i.e. children and PLHIV

Fight against HIV - AIDS - NGOs in Rural Water can be Instrumental

Article; by Evans Kevi; ProNet; WaterAid; Ghana
Available at <http://www.wateraid.org/ghana/news/4445.asp>

Illustrates how NGOs in rural watsan stand a better chance of making an impact in the attempt to control HIV/AIDS through their skills in communicating behavioural change.

The Interesting Cross-Paths of HIV/AIDS and Water in Southern Africa with Special Reference to South Africa

Paper; by CL Obi *et al*; April 2006
Available at <http://www.wrc.org.za/downloads/watersa/2006/Jul%2006/1955.pdf> (PDF Size: 969 KB)

Documents issues around HIV and AIDS, followed by issues of safe water supply unraveling the intricate linkages between HIV/AIDS and water

Reaching New Heights to Bring Water and AIDS Message to Africa: Billboards on Village Water Tanks Encourage Tolerance and Sharing Information on HIV/AIDS

Article; President's Emergency Plan for AIDS Relief (PEPFAR), U.S. Mission to South Africa, Johannesburg; January 8, 2007
http://pretoria.usembassy.gov/wwwhpepfar_success08.html

Relays the achievement of using the world's first HIV+ Muppet, Kami, to communicate pertinent AIDS facts from billboards atop water towers created/built by PlayPumps

Water Supply, Sanitation, Hygiene and HIV/AIDS - The Unrecognized Links

Article; by Wegelin-Schuringa M. and Kamminga E; Waterlines, Volume 22, Number 4, pp. 10-12(3); Practical Action Publishing; April 2004
Abstract Available at [Link](#) (paid publication)

Explains that PLHIV need better access to clean water and sanitation and better managed community-based water supply systems so that they can fight infection better

Mainstreaming HIV/AIDS into Management of the Okavango Delta

Article; IUCN; 15 June 2006
Available at http://www.frameweb.org/ev.php?ID=23136_201&ID2=DO_TOPIC

Describes plans to mainstream HIV/AIDS into managing Okavango Delta, Botswana integrating an ecosystem approach with socio-economic and institutional ground realities

Mainstreaming HIV/AIDS and Gender in Water Plans

Blog Post; by Pelekelo Liswaniso; Aypels Blog Space; 2 August 2006
Available at <http://aypels.blogspot.com/2006/08/mainstreaming-hiv-aids-and-gender-in.html>

Reports on a call urging Integrated Water Resource Management (IWRM) stakeholders in S. Africa to strategize on integrating/mainstreaming HIV/AIDS and Gender in IWRM plans

'Complex Drought' in Southern Africa – A Water and Sanitation Perspective

Article; by Moss S.; Waterlines, Volume 22, Number 4, pp. 19-21(3); Practical Action Publishing; 1 April 2004
Abstract Available at [Link](#) (paid publication)

Reports a food insecurity and the origin of the crisis as being not so much low rainfall as the high incidence of HIV/AIDS and consequential decline in maintaining water sources

Mainstreaming HIV/AIDS in Practice

Toolkit; Swiss Agency for Development and Cooperation (SDC)

Available at http://162.23.39.120/dezaweb/ressources/resource_en_24553.pdf (PDF Size: 1.73 MB)

A collection of resources, checklists, examples and good practices for mainstreaming HIV/AIDS in humanitarian aid providing essential services i.e. food, water, sanitation etc

Recommended Contact and Expert

Dr. Suseel Samuel, Water and Sanitation Program-South Asia (WSP-SA), Kerala (from [Anand S Kurup](#), WHO, Geneva and [K. B. Sudheer](#), UNDP-TAHA Project (Kerala SACS), Trivandrum)

ssamuel1@worldbank.org

Focal person and task manager of the situation analysis conducted to understand Water, Sanitation and Hygiene Behaviour among PLHIV, recommended for details on the study

Recommended Organizations and Programmes

Clean Hands Campaign, Centre for Disease Control and Prevention (CDC), USA (from [Aditi Chowdhary](#), AIDS Research and Control Centre (ARCON), Mumbai)

1600 Clifton Rd, Atlanta, GA 30333; Tel: +1-404-639-3534; <http://www.cdc.gov/cleanhands/>

Stresses the significance of washing hands and focuses on its merits in preventing the contraction of diseases

UN Human Settlements Program (UN-HABITAT), New Delhi (from [Alka Narang](#), UNDP, New Delhi and [Kulwant Singh](#), UN-HABITAT, New Delhi)

Regional Office EP 16/17, Chandragupta Marg, Chanakyapuri New Delhi 110 021; Tel: +91-11-42225000; <http://www.unhabitat.org/categories.asp?catid=270>

Working with Self Help Groups particularly of women to address the issue of high prevalence of HIV/AIDS in the districts of Madhya Pradesh

From [Rituu B Nanda](#), Research Associate

World Health Organization, New Delhi

Rooms 533-535, 'A' Wing, Nirman Bhawan, Maulana Azad Road, New Delhi 110 011; Tel: +91-11-42595600

http://www.who.int/water_sanitation_health/diseases/en/index.html

Works on aspects of water, sanitation, and hygiene where the health burden is high, and where interventions in safe water could reduce vulnerabilities of PLHIV to infections

International Association of Physicians in AIDS Care, USA

33 North LaSalle Street, Suite 1700, Chicago, Illinois 60602-2601, USA; Tel: +1-312-795-4930; Fax: +1-312-795-4938; <http://www.iapac.org/index.asp>; iapac@iapac.org

Implements global advocacy strategies to improve the quality of care provided to all people living with HIV and emphasizes safe drinking water and sanitation

Recommended Portals and Information Bases

Health Services, Nepal Red Cross Society, Kathmandu (from [Soumya Sarkar](#), Prantik Jana Vikash Samity, West Bengal, Kolkata)

www.nrcc.org/healthservice.htm; Tel: +997-1-4272761; health@nrcc.org

Provides responses of water and sanitation programs for PLHIV in a resource constrained country setting in Nepal

HIV/AIDS and Hygiene Integration, Hygiene Improvement Project, USAID (from [Ramya Gopalan](#), Research Associate)

<http://www.hip.watsan.net/page/2117>

Provides various resources and documents such as program tips and guidelines on the integration of watsan and hygiene considerations into HIV/AIDS programs and strategies

From [Rituu B Nanda](#), Research Associate

Linkage between HIV/AIDS and Water, Sanitation and Hygiene: Different Perspectives, IRC International Water and Sanitation Centre

<http://www2.irc.nl/page.php/114>

Contains resources depicting linkages between HIV and water, sanitation and hygiene and advocates a more holistic approach to basic water and sanitation services

The Body

<http://www.thebody.com/content/art12309.html#crypto>

Website is a resource on issues related to HIV and consists of organizations and documents emphasizing the link between HIV, and safe water and sanitation services

Recommended Training Courses

Linking Water, Sanitation and Hygiene to HIV/AIDS: Effective Home-Based Care Approaches, Network for Water and Sanitation (NETWAS), Nairobi, Kenya (from [Ramya Gopalan](#), Research Associate)

12 November 2007 to 16 November 2007. Deadline for registration is 12 October 2007.

Information available at <http://www.comunit.com/africa/training2007/2007-events/events-4742.html>. For details contact NETWAS; Tel: +254 727 170476; training@netwas.org

Developed to improve participants' knowledge, skills and attitudes on the role of water, sanitation and hygiene in effective home-based care

Responses in Full

[Ruben F. del Prado](#), UNAIDS, Guyana and Suriname

Please find details of an excellent work undertaken on Water/HIV in Uganda which you may find useful.

Effect of Home-Based Water Chlorination and Safe Storage on Diarrhoea among Persons with Human Immunodeficiency Virus in Uganda

John R. Lule *et al*, American Journal of Tropical Medicine and Hygiene, 73(5), 2005, pp. 926–933

<http://www.ajtmh.org/cgi/content/abstract/73/5/926>

Details a randomized controlled trial of a home-based, safe water intervention finding that the system reduced diarrhea frequency and severity among PLHIV in Africa

[Anand S Kurup](#), WHO, Geneva

I know that there was a study conducted by Water and Sanitation Programme of the World Bank South Asia team in Delhi on HIV/AIDS and its impact on people living with HIV/AIDS in 2005-06 (through some of the community based HIV/AIDS care and support programmes supported by India HIV/AIDS Alliance). The study was conducted in selected areas in Andhra Pradesh & Tamil Nadu. As I understand, the study looked closely at several aspects of water and sanitation and HIV/AIDS issues including specific needs of people living with HIV/AIDS, children affected by AIDS and affected families in terms of access to safe drinking water and sanitation services; availability and accessibility and use of water supply and sanitation services for people infected and affected by HIV/AIDS, and its potential impact on the health and their well being; the impact of the epidemic on the structure and functioning of the affected households in terms of loss of income due to water-borne infections; stigma and discrimination (both positive and negative) in accessing the existing community facilities, and ability to pay; and gender issues related to the water and sanitation services.

Dr. Suseel Samuel State Coordinator - WSP (Kerala) was the focal person for the study and you may get the report from him(ssamuel1@worldbank.org).

Aditi Chowdhary, AIDS Research and Control Centre (ARCON), Mumbai

I think we should appreciate Mr. Brijmohan Kandpal for raising an interesting and relevant though "low profile" topic for discussion.

There are many ways in which HIV/AIDS and WASH are closely inter-connected. While we do know that HIV/AIDS is not a waterborne disease as such, there are close inter-connections between WASH and HIV/AIDS. One of the most common opportunistic infections associated with HIV infection is diarrhoea. This is a disease that can easily be prevented with adequate care of sanitation and hygiene. Something as simple as washing hands can make a big difference in keeping various infections at bay. The Centre for Disease Control's 'Clean Hands Campaign' (<http://www.cdc.gov/cleanhands/>) exclusively focuses on the merits of hand washing.

Also access to the clean drinking water and sanitation services is a basic need that can make a difference in the productivity and overall quality of life. World over, the chore of fetching water is relegated to women and children irrespective of their health status or age. The task can particularly be a strain for those who are HIV infected and therefore experience fluctuating/diminishing energy levels or side effects from ARV medication. Provision of clean and adequate water can bring relief to thousands of such people.

Cultural contexts also need to be borne in mind, in any discussion on aspects of daily living, hygiene and sanitation included. Majority of the Indians prefer using water as opposed to tissues or alcohol based liquids for cleaning. Thus the utilisation of 'hand wash' liquids can be low due to their low acceptability. It is difficult to convince people who are used to using water to suddenly switch over to something that looks and smells unfamiliar and also costs quite high. While this is a small example to highlight the importance of cultural contexts, the manifestation of this can be at a much larger scale in the form of social discrimination and unequal access to resources.

In rural areas where caste divisions are more prominent in daily life (due to lower anonymity) a person's HIV status can invoke discrimination and social criticism with respect to access to resources. Traditionally the 'village well' has been not just a source of water supply but a metaphor for many more things and it is in fact an indispensable aspect of the rural social fabric. Caste, class and kinship divisions have been crucial determinants of who has access to and who takes decisions regarding a common property resource such as a well. AIDS has only added

another dimension of complexity to this issue and I shudder to even think of the plight of a low caste person infected with HIV.

This raises the important question of "sensitisation" in policy planning with regard to public utilities such as water and sanitation. Policies are framed with 'targets' in mind, rather than those who will use. Hence they fail to offer acceptable, flexible and sustainable solutions.

Important Resources:

- The International Water and Sanitation Centre (IRC) based in Netherlands has created a Thematic Overview Paper specifically on HIV/AIDS and the WASH sector. (available at <http://www.irc.nl/page/3462>)
- Zimbabwe Water and Sanitation Sector HIV/AIDS Response: programme, strategies and guidelines available at http://www.sarpn.org.za/documents/d0001030/Water_HIV_AIDS_Response_Guidelines_June2003.pdf (Size: 315 KB)

K. B. Sudheer, UNDP-TAHA Project (Kerala SACS), Trivandrum

There is a study conducted by Water and Sanitation Programme (WSP) on "Water Sanitation and Hygiene for People Living with HIV and AIDS", which deals exactly with the concern raised by you. The study was conducted among the PLHAs in the states of TN and AP.

The study shows that the PLHA recognise the need for safe water, appropriate sanitation, and hygiene practices better than most people. However barriers - such as limitations of time, economic constraints, lack of individual household toilets, lack of fuel for boiling water, and water scarcity- were reported as impediments in converting knowledge in to practice.

More details about the study may be available with Dr. Susheel Samuel , the Task Manager of the study. His e-mail id is ssamual1@worldbank.org

Soumya Sarkar, Prantik Jana Vikash Samity, West Bengal, Kolkata

There are some excellent responses of WATSAN programs for PLHIV in a resource constrained country setting in Nepal, at the link - www.nrcs.org/healthservice.htm

Rajendra B Jani, Raman Development Consultants, Ahmedabad

I am happy to know that members have mentioned the study done by me for Water and Sanitation Programme titled "Water, Sanitation, and Hygiene for People Living with HIV and AIDS". You can find the same at the following link:

http://www.wsp.org/filez/pubs/72200723130_SAHIVAIDSFN.pdf

I hope Brijmohan Kandpal and other members find it useful.

Alka Narang, UNDP, New Delhi

This is a most relevant query, as water and sanitation have intimate links with HIV/AIDS.

Please find below links to the following documents that provide strategies and a checklist to integrate water and sanitation services with HIV/AIDS:

1. Strategy For Addressing HIV/AIDS in Programme Activities of the Water And Sanitation Trust Fund – available at <http://www.unhabitat.org/pmss/getElectronicVersion.asp?nr=2395&alt=1> (1.34 MB)
2. HIV/AIDS Checklist for Water and Sanitation Projects – available at <http://www.unhabitat.org/pmss/getElectronicVersion.asp?nr=2068&alt=1> (470 KB)

Hope members find these useful.

[Anshuman Tripathi](#), National Mineral Development Corporation Ltd., Bellary

I give below details of an excellent work undertaken on Waterborne disease incidence at Varanasi, India which PLHIV and people working with them may also find useful.

- 1) Isolation of Potentially Pathogenic Escherichia coli O157:H7 from the Ganges River
Steve Hamner et. al. Appl Environ Microbiol. 2007 April; 73(7): 2369–2372.
<http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1855664>
<http://aem.asm.org/cgi/reprint/73/7/2369.pdf>
- 2) A Study of Sewage Pollution and Waterborne Disease Along the Ganges River in Varanasi India
Steve Hamner et al. Fourth Annual Western Regional International Health Conference 2006
http://www.ohsu.edu/som/gha/PDF/Poster_Session.pdf
- 3) The role of water use patterns and sewage pollution in incidence of water-borne/enteric diseases along the Ganges river in Varanasi, India
Hamner et al., International Journal of Environmental Health Research, Volume 16, Number 2, April 2006 , pp. 113-132(20)
<http://www.ingentaconnect.com/content/tandf/cije/2006/00000016/00000002/art00003>

[Kulwant Singh](#), UN-HABITAT, New Delhi

As Alka Narang has mentioned, UN-HABITAT has prepared two documents on the subject. One relates to the Strategy and the other is a checklist to be used while preparing Water and Sanitation related projects by the Water and Sanitation Utilities.

UNHABITAT is also undertaking a project in Madhya Pradesh in districts with high prevalence of HIV/AIDS and are working with the Self Help Groups - particularly of women to address the issue.

Many thanks to all who contributed to this query!

If you have further information to share on this topic, please send it to Solution Exchange for the Water Community in India at se-wes@solutionexchange-un.net.in and/or Solution Exchange for the AIDS Community in India at aids_se@solutionexchange-un.net.in with the subject heading "Re: [se-watr][aids-se] Query: WatSan Services for PLHIV - Examples; Experiences. Additional Reply."

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