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RESEARCH BRIEF

MAY 2009

SMALL DOABLE WASH ACTIONS FOR HIV/AIDS PROGRAMS IN ETHIOPIA

RENU BERY, AED

A home-based care worker demonstrates how to use a tippy tap to wash hands with soap and water. Hand washing with soap (or ash) at critical times reduces the incidence of diarrhea for people living with HIV/AIDs, their caregivers, and others in the household.

Diarrheal disease can occur throughout the course of HIV and AIDS, affecting 90 percent of people living with HIV and AIDS (PLWHA) and resulting in significant morbidity and mortality. A small but growing number of studies have demonstrated the importance of good water, sanitation, and hygiene (WASH) practices for preventing diarrhea and improving the health and quality of life for PLWHA. Household members, especially children, are also at risk of contracting diarrhea from PLWHA suffering from the condition. Despite this evidence, WASH and HIV/AIDS are not routinely integrated into policies and programs, and home-based and palliative care programs seldom have a hygiene component. To address this challenge USAID's Hygiene Improvement Project (HIP) worked with NGOs providing home-based care services in Ethiopia to design and carry out a trial of improved practices (TIPs) to help identify simple, easy to adopt WASH-related practices to integrate into HIV/AIDS programs to reduce diarrheal risk. These practices, known as "small doable actions" (SDA), were designed to be negotiated by home-based caregivers with PLWHA and their families.

HIV/AIDS AND WASH INTEGRATION IN ETHIOPIA

Caregivers working with PLWHA and their families are the ideal primary dissemination channel to share information and model good WASH practices with their clients. In 2007, HIP invited a group of international and local organizations with HIV and AIDS programs to come together to form a community of practice (COP) to identify, pilot, and implement approaches for integrating WASH into home-based care for PLWHA. They first carried out a rapid assessment in Bahir Dar in the Amhara Region of Ethiopia to identify small doable water, hand washing, and feces management actions that could be integrated into home-based care programs. The target audience included PLWHA in urban and peri-urban settings. The list of small doable actions developed in Bahir Dar was then presented, reviewed, and modified by the COP to address their broader catchment context and to ensure their research questions were addressed in the TIPs formative research. HIP and involved COP partners conducted the TIPs research using this set of feasible, small doable WASH actions for PLWHA.

THIS DOCUMENT WAS PRODUCED FOR REVIEW BY THE UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT. IT WAS PREPARED BY THE ACADEMY FOR EDUCATIONAL DEVELOPMENT.

DESIGN OF THE TRIALS OF IMPROVED PRACTICES

In June 2008, HIP and COP partners, Catholic Relief Services and Save the Children/USA, designed and carried out TIPs research that explored three behaviors—water management, feces management, and menstrual management practices—in PLWHA households in four test sites. The research objectives were to:

- identify current WASH practices
- test the acceptability and feasibility of proposed small doable actions related to improving these practices
- identify barriers and constraints that prevent the implementation of these actions
- identify the target audiences' perceived motivations and benefits to the actions they chose to try

ELEONORE SUEMO, AED

Among the practices negotiated with TIPs participants was switching to a narrow mouthed 20-liter jerry can for water treatment and storage.

For seven weeks a team of 11 trained researchers and home-based care workers visited 62 PLWHA in Addis Ababa, and in Adama, Alemtena, and Wonji—urban, peri-urban, and rural sites in the Oromia Region—to conduct the TIPs research. The first visit helped gather information on WASH practices and identify the WASH practice that most needed improvement. The researchers negotiated with each participant to try a set of small doable actions to help improve the behavior. The second visit, which took place three days later, helped identify the constraints in implementing the SDA. The researchers negotiated and helped participants find solutions to identified constraints. The third visit helped identify perceived benefits and motivations, constraints, and solutions. The fourth visit helped gather information on the SDA that were adopted, the perceived benefits and motivations, and the proposed modifications to make the SDA feasible for most PLWHA.

HIP then reviewed the findings from Addis Ababa and the Oromia and Amhara regions and developed recommendations on the WASH-related SDA to be integrated into home-based care programs in Ethiopia.

RECOMMENDED SMALL DOABLE ACTIONS

Water Management

To improve drinking water treatment and storage practices, researchers negotiated with participants using buckets, clay pots, and large mouth jerry cans or cans of other sizes to switch to a narrow mouth 20-liter jerry can, and use Wuha Agar—a locally produced water treatment chlorine solution—to treat the water in the jerry can. Tap water is the main source of drinking water, but some get water from an unprotected well or spring. The researchers used a simple water treatment handout to explain the process. Most participants followed the steps agreed upon and indicated that treating water made it taste good and that the clear water was appealing to drink and free from germs. The reported perceived benefits of switching to the jerry can was that the narrow opening prevented children from dipping their hands into the water and contaminating it, and that treating with Wuga Agar could be more accurate using the standard 20-liter can.

To reduce contamination while serving treated water, the two options participants could try were: 1) pouring water directly into a clean cup or glass or 2) pouring it into a clean jug and then pouring it into a cup or glass. Suggestions to put the used glass or cup upside down on a clean surface, cover the jerry can and jug after use, and store the drinking water container out of the reach of children or animals were well received. Participants using the jug were encouraged to wash the jug and its cover with soap and water daily. Feedback on the key benefits of these practices included preventing contamination and determining whether drinking water was clean or not.

Lack of space in a room or house was the major constraint preventing participants from placing their jerry can out of the reach of children, but the benefits of doing so were acknowledged as preventing

WATER MANAGEMENT SMALL DOABLE ACTIONS

Drinking water source and container

- Reserve a narrow mouth 20-liter jerry can or ensera (clay pot) with a proper cover for drinking water.
- Attach the cover to the ensera or jerry can using a string to keep it off the floor.
- Treat drinking water contained in the 20-liter jerry can or ensera with Wuha Agar.
- Use narrow mouth 20-liter jerry can or ensera with a cover to store drinking water.

Serving drinking water

- Pour water from jerry can or ensera into a clean cup or glass OR pour into a clean jug with cover and then pour into a clean glass. If a jug is used, the jug should have a cover and be reserved for serving drinking water only. When drawing water, don't put hands in the water.
- Wash jug and its cover with soap and water every day.

Keep drinking water safe and glass/cup clean

- Keep the jerry can or ensera covered during day and night.
- Put the clean cup or glass upside down on a clean tray on a shelf or a table; hang ladle.
- Store the jerry can or ensera out of the reach of animals and children.

contamination and reducing waste. After six weeks almost all the negotiated water management SDAs had been consistently implemented. Participants planned to continue implementing the SDAs and in some cases had encouraged other family members and neighbors to implement the practice. Upon reviewing the TIPs findings, HIP recommends the water management SDAs listed in the above box.

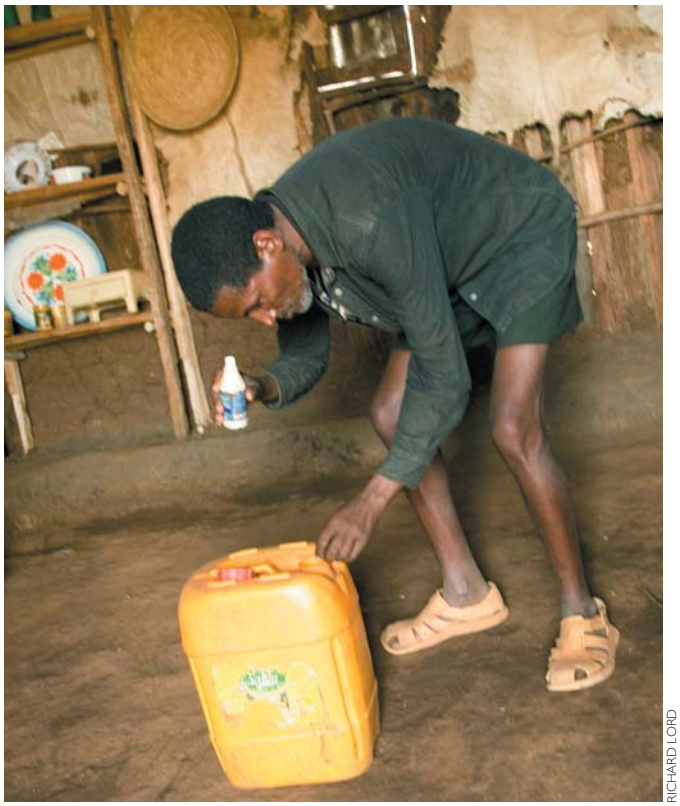
Feces Management

Participants improving feces management practices included those who had access to latrines and those who did not. The SDAs negotiated focused mostly on having and using a latrine but the approaches differed for rural and urban participants.

The researchers negotiated with all who did not have a latrine in rural areas to construct one, either a traditional pit latrine or Ecosan model. The researchers asked the participant to prepare the spot, dig the hole, and make an appointment two to three days after the hole was dug. Before the next visit, arrangements were made with the NGO supporting the home-based program to supply the participant with a slab.

All participants who agreed to construct a latrine chose the Ecosan version. Within two days most participants dug the hole and a few had already started to build the superstructure (wall and roof). The easy-to-construct Ecosan latrine was extremely well received. The perceived benefits cited: pride in having one's own latrine, the ability to stop requesting to use the neighbors' latrine, and feeling comfortable and pleased to live in a compound with no flies. Over a three-week period the majority of participants who constructed an Ecosan latrine completed an existing superstructure. Greater privacy was seen as a major motivation.

In urban and peri-urban settings, TIPs participants were encouraged to use the existing latrine and try an SDA related to improved latrine or potty practices or hand



RICHARD LORD

Treating water at the point of use with Wuha Agar, a locally produced chlorine solution, is one of the recommended small doable actions that was negotiated during the TIPs research.

FECES MANAGEMENT SMALL DOABLE ACTIONS

Infrastructure/equipment for proper disposal of feces

- If latrine is not available, construct an Ecosan latrine with superstructure (walls) from local materials.
- Use latrine and/or the potty for all family members.
- Put a handful of ash in the latrine after defecation (to get rid of the smell and the flies).
- Put ash/sand in potty before use.
- Immediately dispose of the feces in the potty into the latrine or trashcan.
- Put used paper in a tin.

After defecation

- Wash the potty with water and soap, ash, or sand.
- Place potty out of the reach of children.
- Wash hands with water and soap or ash after disposing of the feces from the potty or after using the latrine, cleaning a baby's or anyone's bottom, or when tending to a patient.

CARE FOR BED-BOUND PLWHA SUFFERING FROM DIARRHEA

- Caregivers should spread a plastic sheet (or cut open plastic bags) across the part of the bed under the buttocks and completely cover the plastic with a piece of cloth. (Have several pieces of cloth available for use so when one is soiled it can be immediately replaced with another. These can be made from old skirts, dresses, or bed sheets.)
- Caregivers should use gloves when caring for PLWHA suffering from diarrhea.
- Caregivers should wash feces stained/soiled cloth, bed sheets, and clothes of the sick person with water and soap and dry them in the sun.
- Caregivers should always wash hands with water and soap after caring for PLWHA suffering from diarrhea.

Care if PLWHA is alone and very weak

- After defecating, the patient should roll over and reposition; lean on the side while waiting for someone to help.

washing. As in the water management group, participants were asked to consider the perceived benefits of each SDA. Putting ash in the latrine after use was perceived to remove bad smells and chase flies away. Hand washing participants understood that this practice prevented food from being contaminated. Participants who had soap to clean their potty said it made the potty "inviting/attractive to be used." Those who did not have access to soap put ash in the potty. This was well received and practiced with satisfaction since it helped remove feces easily from the potty. Putting paper inside a latrine delays the disintegration of feces and contributes to filling the latrine quicker, so researchers negotiated putting used paper in a tin. Participants implementing this SDA said it would prevent paper from being dispersed all over the living area.

Almost all SDA were adopted and continued to be implemented after six weeks by participants enlisted in the feces management trial. As in the water management group, some participants satisfied with the outcomes of the SDA encouraged their neighbors to practice the action. Considering the findings of both the rapid assessment carried out in Bahir Dar and the TIPs carried out in Oromia, researchers developed a list of SDAs related to sanitation and hand washing (see box at left).

RENU BERY, AED

A home-based care worker models the proper placement and use of a hand washing station near a latrine.

RENU BERY AED

Researchers observed adaptations such as these home-made bedpans as one method that caregivers used to keep a clean environment for bed-bound patients.

Diarrhea Management for Bed-Bound PLWHA

TIPs on diarrhea management were not conducted for bed-bound PLWHA because current practices observed during the rapid assessment were found to reflect proper hygiene practices, however, the SDAs (at left) were developed. Bed-bound PLWHA suffer from bouts of diarrhea that should be managed properly to reduce the incidence of diarrhea among household members. The use of materials to cover the bed or mat such as cloth and plastic sheeting will greatly assist caregivers to provide a clean environment for bed-bound patients.

Hand Washing

Hand washing with soap or ash at critical times is essential to maintain the health of PLWHA and will reduce the incidence of diarrhea among household members, especially children and caregivers. Less than half of the TIPs research participants said they washed their hands with soap after defecation and one-third did not wash their hands at all. Soap was not generally available in the rural areas. To reduce the amount of water needed to wash hands, a simple tippy tap can be constructed near the latrine or inside the house for bed-bound patients. The following hand washing SDAs (at right) were developed from the rapid assessment carried out prior to the TIPs research.

HAND WASHING
SMALL DOABLE ACTIONS

- Make and use a tippy tap for hand washing. If necessary, build a tippy tap next to the bed to make it easy for PLWHA to wash. Place a bucket below the tippy tap to catch the water.
- Wash hands with soap or ash, rub hands together at least 10 times, attending to the forgotten spots like under the nails, between the fingers, to the wrists. Dry in the air. Don't let the water pour while rubbing to save water.
- Wash hands properly with water and soap or ash at critical times: before meals and cooking, after using the toilet, after cleaning baby's bottom, before and after attending to the patient, whenever going near dung, and after cleaning the potty.
- If you come into contact with blood, feces, urine, or vomit while attending to a patient, wash your hands immediately after cleaning up; do not wait.

MENSTRUAL MANAGEMENT
SMALL DOABLE ACTIONS

Protection during menstruation

- Use a clean piece of cloth from linen or cotton material or a clean pad.
- Store the used piece of cloth in a plastic bag during daytime to prevent contact with the blood-stained material.

Hygiene during menstruation

- Dispose of the used pad in the latrine or trashcan.

Washing the cloth

- Wash the used piece of cloth with soap and water at night. (Caregivers should wear gloves to protect their hands.)
- Dry on the line/hang at night and collect early in the morning.
- Keep the clean and dry pieces of cloth in a clean box after menstruation.

Cleaning the stained dress/bed sheet

- Remove the dress, linen/bed sheet and wash with soap and water.
- Dry the dress, linen/bed sheet outside the house under the sun.

Menstrual Management

Discussions were held about menstruation with 51 women participating in the TIPs. Only female researchers discussed this topic while alone with the participant. Menstrual management practices were found to be similar in all sites and settings. Women used cloth or pads for protection and were discrete about cleaning or disposing of these items in either latrines or trash cans. Two-thirds of those interviewed were aware of the risk associated with the contact with menstrual blood; most of those who were not were from rural areas.

TIPs were not conducted for menstrual management because current practices were found to reflect proper hygiene practices, however, SDAs were developed (see box, page 5). HIP will also be developing additional guidance for SDAs related to menstrual management, based on other country experience.

KEY FINDINGS—BARRIERS AND RECOMMENDATIONS

To make the small doable actions feasible for most PLWHA participants were asked to identify barriers and constraints to adopting the practice and propose solutions. Below are some of the key recommendations that came out of the research to address these barriers.

Jerry Can Not Affordable/Available

To improve access to the standard 20-liter jerry can with cover, eligible PLWHA should be enrolled in income-generating activities that have been put into place by NGOs supporting home-based care activities. If the ensera clay pot is used, it is important to train PLWHA how to fill the pot to 20 liters using a utensil with a known size/volume and find a cover if the pot does not have one to protect the water from contamination.

Limited Access to Wuha Agar

Lack of access could jeopardize the effectiveness of this treatment option. Including Wuha Agar in a home-based care package is a possible short-term solution, but it should be available in every community and accompanied by education to sensitize PLWHA about the importance of always treating drinking water for maximum health benefits.

Limited Access to Latrines in Urban Settings

In rural areas, easy access to land was an important factor that led to the construction and use of the Ecosan latrine. However, in urban areas, since most people rent their room/house, they have to pay to have access to the community latrine. Inability to pay the fees limits the use of the latrine. Proposed solutions include increasing access to income-generating activities to enable participants to pay for the fees.

RENU BERY, AED

In urban areas, where facilities are often shared, stigma can still be an impediment to latrine use for PLWHA.

Stigma

In one instance in an urban area, a participant household was not allowed to use the landlord-owned latrine to dispose of the feces from the potty because of the landlord's and his family's fear of contracting HIV. This isolated occurrence was a reminder that stigma associated with HIV/AIDS is still present and education/sensitization of the general population should go hand in hand with enhancing feces management for PLWHA.

Limitations of Ecosan Latrines

An Ecosan latrine is easy to dig, however, its lifespan is limited. Every time an Ecosan latrine is built, the superstructure has to be rebuilt as well. The short lifespan of the Ecosan latrines may push PLWHA to discontinue the use of the latrine. Programs should address this limitation and solutions should be context specific and could include using available and cheap material for the construction of the superstructure, therefore, making it affordable.

Availability of Soap and Lack of Knowledge about Critical Times for Washing Hands

People who don't have soap should use ash for hand washing. PLWHA wash their hands often but not always

at critical times. Caregivers should sensitize and educate PLWHA about the importance of washing hands at critical times, especially before eating and after using the toilet.

Awareness of Menstrual Blood Risk

Although the knowledge of the risk of HIV transmission by coming into contact with menstrual blood was high among women in urban areas, it was very low to almost nonexistent among women in rural areas. PLWHA and their families should be sensitized to this risk, and caregivers should always wear gloves to avoid direct contact with body fluids such as blood.

IMPLICATIONS FOR POLICIES AND PROGRAMS

These TIPs research findings have policy and program implications for both the HIV and WASH sectors. For the HIV sector, the TIPs findings shed light on the feasible WASH-related SDA for the poorest who have inadequate WASH practices and high morbidity and mortality from diarrheal diseases. The TIPs findings can improve WASH guidance for the neediest, irrespective of their HIV status, by suggesting SDA for households to improve WASH practices.

Policymakers should acknowledge the importance of improved WASH practices for PLWHA and include WASH SDA in national HIV policy guidelines. WASH can be integrated into numerous HIV programs including prevention, care and support, treatment, orphans and vulnerable children, and preventing mother-to-child transmission. HIV prevention, care, and treatment programs also need to develop a language to use to integrate WASH into their programs. When developing WASH policies and programs in communities, the WASH sector should explore the special needs of groups such as sick and weak people that include symptomatic PLWHA. The WASH sector can also provide guidance on the most appropriate infrastructure/equipment for sick and weak people to properly manage their feces.

Programs also need to develop a behavior change strategy to improve WASH practices at household levels and to strengthen the capacity of home-based care workers to negotiate WASH SDA with each target audience. Cross-sectoral coordination between the WASH sector and HIV programs would benefit both sectors and help to improve services at national, regional, and community levels.

OTHER USAID/HIP WORK IN ETHIOPIA

USAID/HIP is working in collaboration with the Water and Sanitation Program/World Bank-AF and the Amhara Regional State Health Bureau to support efforts to achieve at scale hygiene and sanitation improvement in this region of 20 million.

ADDITIONAL RESOURCES ON HIP'S WORK WITH HIV/AIDS AND WASH INTEGRATION

The complete report on the TIPs research in this brief: **Trials of Improved Practice: Determining Feasible Water and Feces Management Small Doable Actions for HIV Programs in Ethiopia,** HIP, February 2009. http://www.hip.watsan.net/page/3215

Programming Guidance for Integrating Water, Sanitation, and Hygiene Improvement into HIV/AIDS Programs to Reduce Diarrhea Morbidity, HIP, May 2008. Guidance for implementers of HIV/AIDS care and support activities on integrating hygiene improvement into HIV/AIDS programming. http://www.hip.watsan.net/page/2458

The USAID Hygiene Improvement Project is a five-year (2004-2009) project funded by the USAID Bureau for Global Health, Office of Health, Infectious Diseases and Nutrition, led by the Academy for Educational Development (contract # GHS-I-00-04-00024-00) in partnership with ARD, Inc., the Manoff Group, and the IRC International Water and Sanitation Centre. HIP aims to reduce diarrheal disease prevalence in children under five through the promotion of three key hygiene practices: hand washing, safe disposal of feces, and safe storage and treatment of drinking water.

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